Course Title: 12 - hour Body Wrap Specialist
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Body Wrap Specialist

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UNIT 1

Diseases and Disorders of the Skin
(Four Credit Hours)

Unit Learning Objectives
After successfully completing this unit you should be able to:

- Understand the importance of the consultation
- Describe the structure, layers, and mechanisms of the skin
- List the purpose and function of the skin
- Recognize skin disorders and skin diseases when they encounter them in the salon
- Understand how to distinguish between a skin disease and a skin disorder
- Identify the symptoms of common disorders and diseases of the skin
- Understand when body Wrapping services can be performed on a client with a skin disorder or disease
- Know when a client must be referred to a physician and when a body Wrapping services is prohibited.

INTRODUCTION
As a registered body Wrapper it is necessary that you are concerned with the health and appearance of the skin of the persons that you are providing Wrapping services for. The health of the skin is essential for you to be permitted to provide body Wrapping services.

We cannot protect what we do not understand. The scientific study of the, skin, and diseases and disorders that can affect the skin are of importance to body Wrappers. Understanding the anatomy of the skin, and knowing how to recognize skin diseases and disorders, forms the basis for providing safe and healthy services for your clients.

This unit is divided into 2 main sections; the first section covers the structures and functions of the skin. The second section teaches participants about the diseases and disorders of the skin. Lastly a review of the previous sections followed by a short learning assessment to determine the level of course material retention will be completed as the final phase of this course. Before you get started take a moment and ask yourself the following questions:

- Do you know the difference between a contagious disorder and a disorder that is not contagious?
- Do you know how infections are spread?
- Do you know what a pathogen is?
- Do you know how to recognize if a skin disorder or disease?

If you answered no to any of the above questions you would not be able to provide safe body Wrapping services. You will learn the answers to these questions in this unit. The individual who has a thorough understanding of the skin and its structure and functions, including disorders and diseases, as well as sanitation and infection control,
will be better able to give clients professional services while protecting the client from potential skin damage or possible infection or even disease.

THE CONSULTATION

Many skin conditions that affect the skin can go unnoticed because of clothing, so it's important to check your client’s skin for disorders or diseases before you begin any service. Your first step in providing a service is the consultation where you speak to the client about the condition of their skin. Always begin ever wrapping service with a consultation with the client, even if you have done that person’s body wrap many times in the past. Even if a client was in recently and their skin looked healthy and contained no breaks in the skin, they may have had other changes in their skin health that you need to know about. The purpose of the consultation is not only to find out information about the client that will let you determine if you are permitted to provide a body Wrapping service, it is also the time that you analysis the condition of their skin, and determine if the skin is in a healthy and lesion clear state, free of disease or disorders. No matter how busy you may become never pass up the opportunity the consultation provides you to check if the client qualifies for a body wrapping service. This is the best form of infection control. If a client does have a condition that can be spread from one person to another, once you start on the service infectious material has made contact with you and your tools and contamination of the work area has started.

Part 1 - THE STRUCTURE AND FUNCTION OF THE SKIN

The Integument - the skin and all of its derivatives

The more you know and understand the function and the processes of the skin, the more effective you can be at providing safe wrapping services and professional beauty recommendations. This unit is primarily to teach you about the most common diseases and disorders of skin as well as, what you need to know to help protect the client against harmful pathogens that can be passed from person to person. But to fully appreciate and understand how these diseases and disorders occur you need a basic understanding of the fundamentals of the skin.

Accordingly we will begin this unit with a brief overview of the major structures and functions of the Integumentary System of the human body. There are 15 systems of the human body. A few familiar examples are the Skeletal System, and the Nervous System. The body system that we will focus on in this unit is the Integumentary System, which is the system responsible for the function of the hair, skin and scalp.

Components of the Integumentary System

The integumentary system (integument meaning: a covering) consists of the skin (cutis), which is made up of the epidermis, dermis, and the hypodermis, and its appendages. The appendages of the integumentary system includes the hair, nails, sebaceous glands, sweat glands, blood vessels, lymphatic vessels, sensory nerves, and smooth muscle (arrector pili muscles).

The condition of the hair, skin, and nails are good indicators of overall health. Before a farmer makes a purchase of livestock the first thing he does is to examine the animal’s coat of hair, and teeth. In the same vein, the health of our hair and skin reflects our own physiological condition. When the skin, hair or the nails appear in poor condition it may be the reflection of a variety of external and internal disease processes, such as endocrine disorders, or nutritional problems.

For example vitamin A deficiency is characterized by very dry, hardened skin, dry lack-luster hair and hair loss. Of course there are lots reason for hair loss, many of which we will explore in this section, and improper nutrition is one of them.

HEALTHY SKIN

A healthy skin is slightly moist, soft, and flexible, possesses a slightly acid reaction, and is free from any blemish or disease. Its texture, as revealed by feel and appearance, should be smooth and fine-grained. A good complexion shows itself in the fine texture and healthy color of the skin.
Although we may not think of our skin as an organ, like our heart or our brain, but in fact it is the body’s largest organ and the foundation of the integumentary system. Skin tissue grows faster than any other organ tissue and is constantly changing and regenerating itself by growing new skin cells and sloughing off old ones.

Our skin is our first line of defense against bacteria, pollution and other irritants. It is protective, waterproof and remarkably elastic. It not only protects us from the outside world but it also connects us to it. Our skin also both cools us down and helps keep us warm, so it's important to keep it healthy.

**Functions of Skin**
The skin covers the entire body and performs many vital functions. The skin has an immunity responsiveness to many things that touch it or gain entry into it. In addition to serving as a protective shield against heat, light, injury, and infection, the skin also:

- Regulates body temperature.
- Stores water and fat.
- Is a sensory organ (pain, pleasure, touch, temperature).
- It is waterproof and protects against water loss.
- Prevents entry of bacteria.
- Protects against UV irradiation.
- Converts precursor molecules into Vitamin D.

The skin is protective in a mechanical way and defensive in response to injury, irritation, or infection.

1. **Protection.** The skin protects the body from injury and bacterial invasion. The outermost layer of the epidermis is covered with a thin layer of sebum, thus rendering it waterproof. It is resistant to ranges of temperature, minor injuries, chemically active substances, and many microbes. If they do invade, the skin becomes inflamed and gets rid of them.

2. **Sensation.** Through its sensory nerve endings, the skin responds to heat, cold, touch, pressure, pain and location. Extreme stimulation of a sensory nerve ending produces pain. A minor burn is very painful but a deep burn that destroys the nerves may be painless. Sensory endings responsive to touch and pressure lie in close relation to hair follicles.

3. **Heat regulation.** The healthy body maintains a constant internal temperature of about 98.6 degrees Fahrenheit. As changes occur in the outside temperature, the blood and sweat glands of the skin make necessary adjustments in their functions. Heat regulation is a function of the skin as an organ between the body and the environment. Heat is lost by the evaporation of sweat.

4. **Excretion.** Perspiration from the sweat glands is excreted from the skin. Water lost by perspiration carries salt and other chemicals with it.

5. **Secretion.** Sebum is secreted by the sebaceous glands. Excessive flow of oil from the oil glands may produce seborrhea (seb-o-re'ah). Emotional stress may increase the flow of sebum.

6. **Absorption.** is limited, but it does occur. Female hormones applied in a face cream enter the body through the skin and influence the body to a very minor degree. Fatty materials such as lanolin creams are absorbed largely through the hair follicle and sebaceous gland openings.

Throughout the body, the skin's characteristics vary (i.e., thickness, color, texture). For instance, the head contains more hair follicles than anywhere else, while the soles of the feet contain none. In addition, the skin varies in thickness, being thinnest on the eyelids and thickest on the continued pressure over any part of the skin will cause it to thicken, as in a callous.
ANATOMY OF THE SKIN

The skin is made up of the 3 main layers and several sub-layers. Each contains layer specific cells, and various organelles each of which perform specific functions. The following outline is a breakdown of the skin layers and the appendages of the skin that make up the integumentary system.

1. **Epidermis**
   - Stratum Germinativum
   - Stratum Spinosum
   - Stratum Granulosum
   - Stratum Lucidum
   - Stratum Corneum

2. **Dermis**
   - Papillary Layer
   - Reticular Layer

3. **Hypodermis / Subcutaneous**
   - Subcutaneous fat layer (subcutis)

4. **Appendages/Accessory Structures**
   - Hair Follicles
   - Nerves of the Skin
   - Sebaceous Glands
   - Sweat Glands
   - Apocrine Sweat Glands
   - Merocrine Sweat Glands
   - Nails

**EPIDERMIS**

The epidermis (ep-i-der'mis) is the outermost layer of the skin. This layer is commonly called cuticle or scarf skin. The skin is covered by a film of emulsified material produced by glands and by cornification called the acid mantle. It contains no blood vessels but has many small nerve endings. Epidermis is divided into the following 5 sub-layers

1. **Stratum corneum**: (stratum kor'ne-um), or **hairy layer**. This layer consists of fully mature keratinocytes, which contain fibrous proteins (keratins). The outermost layer is continuously shed, consists of tightly packed, scale-like cells, which are continually being shed and replaced. As these cells develop from underneath layers, they form **keratin** (ker'ah-tin), a chemical substance, which acts as a waterproof covering for the skin. The stratum corneum prevents the entry of most foreign substances as well as the loss of fluid from the body.

   There are several subtypes of keratin proteins, some are called "soft" keratins and others are "hard" keratins.
   a) **Soft keratin** – elastic, desquamates (example: skin)
   b) **Hard keratin** – contains more sulfur than soft keratin; less elastic; more permanent; resistant to degradation, does not desquamate (examples: nails, horns, hoof)

2. **The stratum lucidum** (stratum lu'si-dum), or clear layer, consists of small transparent cells through which light can pass. This layer is also referred to as **Keratinocytes**: (squamous cells) This layer, just beneath the stratum corneum, contains living keratinocytes (squamous cells), where the dying keratinocytes contain a lot of keratin but are not completely replaced by it, these cells will mature and form the stratum corneum.

**Keratinization of the Skin**: the process by which a basal cell undergoes mitosis producing cell that moves outward toward the surface of the skin. As the cell continues from the inner most layer, through the subsequent layers, a durable, tough, indigestible protein - Keratin - is produced. The cell loses the nucleus and 'dies' and in the process fills with keratin.
3. **The stratum granulosum** (stratum gran-u-lo' sum), or granular layer, consists of cells, which look like distinct granules. These cells are almost dead and undergo a change into a horny substance.

4. **Stratum spinosum**: (stratum spin-o-sum) the stratum spinosum is a layer of the epidermis found between the stratum granulosum and stratum basale. It is the thickest layer of the epidermis, and is involved in the transfer of certain substances in and out of the body. The squamous cell layer also contains cells called Langerhans cells. These cells attach themselves to antigens that invade damaged skin and alert the immune system to their presence. This layer is also referred to as the "spinous" or "prickle-cell" layer.

This appearance is due to desmosomal connections of adjacent cells. In this layer the cells are still alive, at least in the deeper regions of it. They can even divide, to a limited extent, in cases of high demand for new keratinocytes. As they creep upward, however, these cells lose their capability for division and they make the transition from living to barely living, and eventually to dead. The stratum spinosum may be quite extensive in thick skin, but in thin skin it may be only one or two cells' breadth. Keratinization begins in the stratum spinosum.

5. **Stratum basale**: (stratum bay-sel) Stratum basale is also referred to as the "stratum germinativum" (jer'mi-na-tiv-um), “basal layer”, or “Malpighian layer” is the active layer of the epidermis. This layer was formerly known as the stratum mucosum (mu-ko'sum). The basal layer is the deepest layer of the epidermis, containing basal cells. In this layer the basal cells are undergoing mitosis, the process where the cells continually divide, forming new keratinocytes to produce the constant supply of basal cells, replacing the dead and dying cells in the more superficial layers of the epidermis that are shed from the skin's surface.

It also contains melanocytes, which are cells that produce **melanin** (mel'ah-nin), the melanin (skin pigment) cells give color to the skin, the greater number of melanin cells the darker the pigment of the skin. The melanin protects the sensitive cells below from the destructive effects of excessive ultra-violet rays of the sun or ultra-violet rays from a lamp.

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**Epidermis**

1. **Stratum corneum**
   - Dead cells with a hard protein envelope; the cells contain keratin and are surrounded by lipids.

2. **Stratum lucidum**
   - Dead cells containing dispersed keratohyalin.

3. **Stratum granulosum**
   - Keratohyalin and a hard protein envelope form; lamellar bodies release lipids; cells die.

4. **Stratum spinosum**
   - Keratin fibers and lamellar bodies accumulate.

5. **Stratum basale**
   - Cells divide by mitosis and some of the newly formed cells become the cells of the more superficial strata.

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**Dermis**

- Desmosome
- Nucleus
- Hemidesmosome
- Basement membrane
ACID MANTLE AND THE pH OF THE SKIN

A primary function of the skin is to protect the body, but it is the acid mantle that protects the skin. You may have heard the terms pH balanced used in some product advertisements but what does pH balanced mean? Normal skin surface pH is between 4 and 6.5 in healthy people, though it varies among the different areas of the skin.

The term pH balanced refers to topical products that when used will not disrupt this natural pH of our skin or hair. The acid mantle, a fine film with a slightly acidic pH is what gives the surface of the skin its pH, which protects the skin from bacterial and fungal infections. It plays a very important role as an integral part of the barrier function of the stratum corneum. The acid mantle makes the skin less permeable to water and other compounds. It also contributes to the low pH of the skin surface.

It’s important to protect the stratum corneum because if it’s damaged, skin surface pH has been shown to increase, creating susceptibility to bacterial skin infections or skin damage and disease.

Providing Protection

The acid mantle contains lactic acid and various amino acids from sweat, free fatty acids from sebum, and amino acids and pyrrolidine carboxylic acid from the cornification process of skin.

The acid mantle:

- Supports the formation and maturation of epidermal lipids and therefore the maintenance of the barrier function
- Provides indirect protection against invasion by microorganisms
- Provides direct protection against alkaline substances (alkali neutralizing capacity)

Washing skin with soaps or detergents can cause the loss of acid mantle. Repetitive washing alters the stratum corneum and barrier functions, including skin pH. Once damaged, it can take up to 14 hours to restore, by which time, it’s most likely under assault again from another washing. Most people wash their hands about three times a day, on average. Single washings shift pH to the alkaline region, which can shift back to normal within a few hours, or it can be restored with a pH balanced solution.

If the acid mantle becomes disrupted or damaged, or loses its acidity, the skin becomes more prone to damage and infection. Restoring the acid mantle to a balanced pH is an important step to take in protecting the health of the skin. The skin pH can be easily restored using simple ingredients such as purified water with a small amount of vinegar per part. Using a cotton pad apply it to the face and the skin pH is restored. This can also be done with the hair or using a pH balanced product will serve as well.

Other Factors that Affect pH

There are many diseases that cause an increase in skin surface pH. Skin conditions that can cause this phenomenon include:

- Eczema
- Contact dermatitis
- Atopic dermatitis
- Dry skin

DERMIS

The dermis is the underlying or inner layer of the skin. It is also called derma, corium, cutis or true skin. The dermis is a highly sensitive and vascular layer of connective tissue. The main functions of the dermis are to regulate
temperature and to supply the epidermis with nutrient-saturated blood. Much of the body's water supply is stored within the dermis. The dermis makes up the bulk of the skin.

The dermis is the layer beneath the epidermis. Its major parts are collagen (a protein that adds strength), reticular fibers (thin protein fibers that add support), and elastic fibers (a protein that adds flexibility). This layer contains most of the skin's specialized cells and structures within its structure are found numerous blood vessels, lymph vessels, nerves, sweat glands, oil glands, hair follicles, arrector pili muscles and papillae.

The main functions of the dermis are to regulate temperature and to supply the epidermis with nutrient-saturated blood. Much of the body's water supply is stored within the dermis. This layer contains most of the skin's specialized cells and structures, including:

**Blood Vessels**
The blood vessels supply nutrients and oxygen to the skin and take away cell waste and cell products. The blood vessels also transport the vitamin D produced in the skin back to the rest of the body.

**Lymph Vessels**
The lymph vessels bathe the tissues of the skin with lymph, a milky substance that contains the infection-fighting cells of the immune system. These cells work to destroy any infection or invading organisms as the lymph circulates to the lymph nodes.

**Hair Follicles**
The hair follicle is a tube-shaped sheath that surrounds the part of the hair that is under the skin and nourishes the hair.

**THE LAYERS OF THE DERMIS**
The dermis layer is made up of two sub layers: the papillary layer, or superficial layer, which has loose connective tissue, and the reticular layer, or deeper layer, which has dense connective tissue. These layers are so closely associated that they are difficult to differentiate.
1. The Papillary Layer
The papillary (pap’i-la-re) layer lies directly beneath the epidermis. The papillary layer contains small cone-shaped finger-like projections of elastic tissue called papillae (paeh-pil’e) that point upward into the epidermis. These projections connect the papillary layer to the epidermis. The papillary layer of the dermis provides the body with the sense of touch. Nerves supplying the skin register basic types of sensations, namely: touch, pain, heat, cold, pressure or deep touch. Nerve endings are most abundant in the fingertips. Complex sensations, such as sense of vibration seem to depend on a combination of these nerve endings.

The upper, papillary layer, contains a thin arrangement of collagen fibers. Some of these papillae contain looped capillaries and through these capillaries blood supplies nutrients, which nourishes the epidermis, and regulates temperature. Both of these functions are accomplished with a thin, extensive vascular system that operates similarly to other vascular systems in the body. Constriction and expansion control the amount of blood that flows through the skin and dictate whether body heat is dispelled when the skin is hot or conserved when it is cold.

Some of these papillae contain nerve fiber endings called tactile corpuscles (tak’til kor’pus-lz). This layer also contains some of the melanin skin pigment; others contain Meissner's corpuscles, sensory touch receptors. A double row of papillae in finger pads produces the ridged fingerprints on fingertips. Similar patterns in the ridged fingerprints on fingertips are on palms of the hands and soles of the feet. Fingerprints and footprints keep skin from tearing and aid in gripping objects.

2. The Reticular Layer
The reticular layer of the dermis is thicker and contains crisscrossing collagen fibers that are arranged parallel to the surface of the skin and form a strong elastic network. This network forms a pattern called cleavage (Langer's) lines. Surgical incisions that are made parallel to cleavage lines heal faster and with less scarring than those made perpendicular. Parallel incisions disrupt collagen fibers less and require less scar tissue (cells that aid in healing) to close up a wound.

The reticular layer is denser than the papillary dermis, and it strengthens the skin, providing structure and elasticity. It also supports other components.

The reticular (re-tik’ u-lar) layer, within its network, contains following structures:

a) Fat cells      d) Oil glands      f) Hair follicles
b) Blood vessels e) Sweat glands      g) Arrector pili muscles
c) Lymph vessels

Nerve Endings
The dermis layer also contains pain and touch receptors that transmit sensations of pain, itch, pressure and information regarding temperature to the brain for interpretation. If necessary, shivering (involuntary contraction and relaxation of muscles) is triggered, generating body heat.

Different types of sensory receptors are embedded in the superficial layers of the skin, which respond to different mechanical, thermal stimuli.

1. Motor nerve fibers: distributed to arrector pili muscles attached to hair follicles. Cause goose bumps when frightened or cold.

2. Sensory nerve fibers: react to heat, cold, touch, pressure and pain. They send messages to the brain and are found in papillary layer. The fingertips, which are very sensitive, have an abundance of sensory nerve fibers.

3. Secretory nerve fibers: distributed to sweat and oil glands of the skin; regulate excretion of perspiration from sweat glands and control flow of sebum to surface of skin.

4. Sense of touch: papillary layer of dermis houses nerve endings that provide body with sense of touch.

Pacinian corpuscles are located in the hypodermis and bear a strong resemblance to the cut face of an onion; they may measure 1 mm or more in their long axis. A myelinated nerve fiber penetrates the corpuscle, after which it loses its
myelin sheath. Pacinian corpuscles are pressure receptors and are especially numerous in skin which has great sensitivity, such as the fingertips.

*Meissner’s corpuscles* are touch receptors, which are located in the dermal papillae immediately under the epidermis. They are cylindrical in shape and resemble a turban. They too contain the unmyelinated terminal of afferent nerve fibers.

![Diagram of skin structures](image)

The density of structures in the skin varies considerably depending on the body location, but on average one square centimeter of skin contains about 10 hair follicles and 15 sebaceous glands, 100 sweat glands, half a meter of blood vessels, 2 meters of nerves, with 3,000 sensory cells at the ends of nerve fibers, 200 nerve endings to record pain, 25 pressure receptors for the perception of tactile stimuli, 2 sensory receptors for cold, and 12 sensory receptors for heat.

**SKIN COLOR**

Skin color depends primarily on melanin, and to a lesser degree, it depends partly on blood supply to the skin.

1. **Melanin**: tiny grains of pigment (coloring matter) deposited in the stratum germinativum of the epidermis and the papillary layers of the dermis.

2. **Hereditary**: varies among races and nationalities. Dark skin contains more melanin; light skin contains less.

**STRENGTH AND FLEXIBILITY OF THE SKIN**

The dermis is held together by a protein called *collagen*, which is made by fibroblasts. Fibroblasts are skin cells that give the skin its strength and resilience. Collagen is a tough, insoluble protein found throughout the body in the connective tissues that hold muscles and organs in place. In the skin, collagen supports the epidermis, lending it its durability. *Elastin*, a similar protein, is the substance that allows the skin to spring back into place when stretched and keeps the skin flexible.
GLANDS OF THE SKIN
The skin contains two types of duct glands, which extract materials from the blood to form new substances. Those two types of glands are sweat glands, and oil glands. The body has two types of sweat glands both excrete different substances. Three types of glands are commonly found in skin: eccrine sweat glands, apocrine sweat glands, and sebaceous glands.

1. The **soporiferous** (su-dor-i' er-us), or sweat glands, excrete sweat.
2. The **sebaceous** (se-ba-shus), or oil glands, secrete sebum.

Sweat Glands
The average person has about 3 million sweat glands. Sweat glands are classified according to two types:

1. **Eccrine glands** are the true sweat glands. Found over the entire body, they are most numerous on the palms and soles, but here they respond not to temperature but to emotional stimuli. The electrical resistance of the skin of the palms is decreased by such sweat gland activity. This phenomenon is used in “lie-detectors.”. These glands regulate body temperature by bringing water via the pores to the surface of the skin, where it evaporates and reduces skin temperature. These glands can produce up to two liters of sweat an hour, however, they secrete mostly water, which doesn't encourage the growth of odor-producing bacteria. The glands are activated by sympathetic nerve impulses arising in the brain stem, when rising blood temperature stimulates nerve centers. Evaporation of the sweat from the skin causes cooling in the extensive capillary loops surrounding the dermal papillae.

2. **Apocrine glands** are specialized sweat glands that can be found in the armpits, breast and pubic region. The apocrine glands contain only a single secretory cell type. Apocrine glands, which become active at puberty, are larger, deeper, and produce thicker more complex secretions than eccrine glands. The apocrine glands secretions contain pheromones, substances that enable olfactory (sense of smell) communication with other members of the species. This communication provokes certain behavioral responses such as sexual arousal. Unlike eccrine glands that respond to heat, apocrine sweating occurs largely in response to strong emotions such as fear, pain, and sex. These glands secrete a milky sweat with a characteristically sexually arousing odor that differs from body odor that results from bacteria decomposing secretions on the skin. However the apocrine secretions do begin to decompose rather quickly as the result of bacteria on the skin and it is due to bacterial decomposition that it acquires its distinctive unpleasant odor.

Sebaceous glands
Sebaceous, or oil, glands, are are found associated with hair follicles but also occur where there are no hairs. Oil glands (saccular type) consist of little sacs whose ducts open into the hair follicle. These glands can be found everywhere on the body except for the palms of the hands and the soles of the feet. These glands secrete oil called **sebum** (se'bum), which helps keep the skin smooth and supple and preserves the softness of the hair. The oil also helps keep skin waterproof and protects against an overgrowth of bacteria and fungi on the skin.

Maturation of sebaceous and apocrine sweat glands is regulated by hormones, attaining full growth at puberty. This is the result of increased circulating sex hormones (androgens). During the period of rapid maturation, the sebaceous glands tend to get plugged up, forming “blackheads” and infected, yielding the common ailment known as acne. Today this is very successfully treated with antibiotics or derivatives of vitamin A.

AGING OF THE SKIN
Published research and clinical trials confirm that a person’s genetic predisposition dictates the onset age and severity of elastin production decrease as we age. That genetic code determines when and how fast the skins structures and renewal process breaks down.

With increasing age, the skin's cell renewal process becomes less efficient, cells do not reproduce as quickly and they don't live as long, thereby reducing the living cell layer of the skin and increasing the size of the dead cell layer. Meaning less nice round plump living cells and more flat dry dead cells. The cell regeneration slows down and tissue repair is less efficient. Another characteristic of aging skin is a reduction in natural moisture in the skin causing it to appear dry.
COURSE UNIT 1 - DISEASE AND DISORDERS OF THE SKIN

Pliability of the skin depends upon the elasticity of the fibers of the dermis. For example, when healthy skin expands, it regains its former shape almost immediately. The aging process of the skin coincides with a progressive loss of the speed in which the cells of the skin divide and a decrease in the life of the cell.

Perhaps the most outstanding characteristic of the aged skin is its loss of elasticity. When the elastin fibers that give the skin the flexibility needed to bounce back into place breakdown the skin doesn’t snap back into place. As discussed earlier, your skin is comprised of two types of important skin fibers: collagen and elastin. Collagen fibers [found in the reticular dermis] are the structural fibers of the skin. Collagen fibers do not stretch very well. In fact, one of its functions is to resist stretching and provide structure. Scar tissue is composed of collagen fibers.

It is the other skin fiber “Elastin fibers” [found in the papillary dermis] which are the ‘rubber band’ fibers responsible for the ‘snap back’ quality of young skin. Elastin fibers are recognized by leading skin physiology physicians, to be the important ‘Youth Protein’ fibers of skin. They give young (pre 25 years of age), smooth, firm skin its resiliency - its retraction and ‘snap’.

Certain hormones in the body responsible for signaling the brain to produce more elastin begin to decline as the body gets older causing the body to slow its production of elastin fibers. Sagging skin is lacking youthful levels of elastin fibers. Wrinkles form because there is elastin fiber deficient (sagging) skin lying over the moving muscles of the face.

1. Sun and its effects: sun’s ultraviolet rays have the greatest impact on how our skin ages.

80 percent to 85 percent of aging caused by sun’s rays.
UVA Rays (also called “aging rays”): constitute 90 percent to 95 percent of sun’s ultraviolet rays.
UVB Rays (also called "burning rays”): cause tanning of the skin by affecting the melanocytes.

2. ABCD cancer checklist: when checking existing moles, look for changes in these areas. If changes in any of these areas are noted, consult a physician.
   A – Asymmetry
   B – Border
   C – Color
   D – Diameter

3. Environment:
   Pollutants from factories
   Emissions from automobiles
   Secondhand cigarette smoke

4. Lifestyle:
   Smoking: causes cancer and premature aging and wrinkling of the skin.
   Drinking: over dilates blood vessels and capillaries; causes a constant flushed appearance of skin; dehydrates skin and causes it to appear dull and dry.

   Taking drugs: some drugs interfere with body’s intake of oxygen; also aggravate serious skin conditions, such as acne; others cause dryness and allergic reactions on skin surface.
   Poor diet.

**SUBCUTANEOUS TISSUE**

Subcutaneous tissue: the fatty layer is the third layer of the skin, and is found below dermis; also called adipose or hypodermis. This layer is important is the regulation of temperature of the skin itself and the body. The size of this layer varies throughout the body and from person to person. It varies in thickness according to age, sex, and general health.

The subcutaneous layer contains fat and connective tissue that houses larger blood vessels and nerves. Gives smoothness and contour to body; contains fats for energy and acts as protective cushion for outer skin. The subcutaneous layer binds the skin loosely to underlying tissues. Circulation is maintained through arteries and lymphatics.
HEALTHY DIET FOR THE SKIN
The hair and the skin are very similar in content and make-up. As you have learned in this unit hair and skin are two parts of the same body system. Much of the same materials and nutrients and vitamins that are used to maintain skin is also the same components needed for to maintain healthy hair. The same building blocks that the body uses for the hair are also used by the body for skin as well. It therefore stands to reason that a diet that would be good for the skin would also be good for the hair.

Knowing what is good for us and following it are not always easy to do. Life style and personal economics play a large roll in what we eat. Ideally we should strive to avoid junk foods and try instead to make our diet as natural and basic as we are able. To do this it is helpful to know what type of foods and nutrients the body needs to maintain healthy skin and hair the following data teaches you what various vitamins do and what kinds of foods contain them. It is a good plan to follow with the goal to work toward making it a daily part of your life.

Proper dietary choices help regulate hydration, oil production, and overall function of the cells. Eating foods in all three basic food groups (fats, carbohydrates, proteins) in the appropriate portions and with a balance of each group geared toward the needs of the individual is the best way to support healthy skin.

VITAMINS AND SUPPLEMENTS WHAT THEY DO AND WHERE TO GET THEM
1. Aid in healing, softening, and fighting diseases of the skin.
2. Taking vitamins internally is best to support healthy skin, although some external applications have been found to be useful in nourishing the skin. One of the vitamins that have been found to provide cellular benefits when applied topically is vitamin C.

Vitamin A: supports overall health of the skin.
1. Aids in health, function, and repair of skin cells.
2. An antioxidant that can help prevent skin cancer.
3. Can improve skin’s elasticity and thickness.
4. Retinoic acid or Retin-A: Topical form that can be used to treat acne.

Vitamin C (also known as ascorbic acid)
1. Needed for proper repair of skin and tissues.
2. Speeds up healing process.
3. Promotes collagen production.

Vitamin D: best source is sunlight (in limited amounts).
1. Promotes healthy skin.
2. Promotes rapid healing of skin.
3. Supports bone structure.

Vitamin E: also known as tocopherol. Used with vitamin A, can fight against and protect skin from harmful effects of sun’s rays.
1. Helps to heal damage to skin’s tissues whether used internally or externally.
2. Topically, it can help heal structural damage on skin.

Water: other than oxygen the most critical life sustaining element to the human body.
1. Composes 50 percent to 70 percent of body’s weight.
2. Sustains the health of the cells.
3. Aids in elimination of toxins and waste.
4. Helps regulates body’s temperature.
5. Aids in proper digestion.
6. 75 percent of Americans are chronically dehydrated.
7. Mild dehydration slows metabolism by as much as 3 percent.
HEALTHY DIET FOR HEALTHY SKIN AND HAIR

Hair grows about 1/4 to 1/2 inch every month, and the foundation of all new hair, skin, and nail growth is the nutrients we eat.

Persons born with fine, thin hair will never have rope-thick tresses no matter what they eat, but a well-balanced diet that includes plenty of growth-promoting protein and iron can make a difference in even the finest thinnest hair.

Even though there are supplements available for purchase in a bottle it is always been best to get the nutrients from foods whenever possible. The body better metabolizes natural sources. In cases of excess supplementation of certain nutrients, such as vitamin A, has been linked to hair loss. That is not to say vitamin A should not be part of a healthy diet, it simply needs to be carefully consumed if in the form of a supplement. Vitamin A is one of the vitamins that are needed for health but it is a vitamin that can be stored by the body and overtime if too much is taken it can become toxic. Vitamin A consumed in food sources doesn't store and therefore will not build up and become toxic. This also occurs with vitamin D and several other nutrients.

Body can synthesize 11 of the 20 amino acids that make up hair. The remaining 9 nutrients must come from your diet. Sources of amino acids: proteins: meat, fish, eggs, dairy products, peanut butter, and beans

FOOD FOR HEALTHY SKIN AND HAIR

Salmon
When it comes to foods that pack a beauty punch, it's hard to beat salmon. Loaded with omega-3 fatty acids, this high-quality protein source is also filled with vitamin B-12 and iron. Essential omega-3 fatty acids are needed to support scalp health, a deficiency can result in a dry scalp and thus hair, giving it a dull look. Vegetarian's can include one or two tablespoons of ground flaxseed for some plant-based omega-3 fats to substitute for salmon.

Dark Green Vegetables
Spinach, like broccoli and Swiss chard, is an excellent source of vitamins A and C, which your body needs to produce sebum, the oily substance, secreted from hair follicles that works as the body's natural hair conditioner. Dark green vegetables also provide iron and calcium.

Beans
Beans are good for your hair and skin. Legumes like kidney beans and lentils should be an important part of the hair and skin-care diet. Not only do they provide plentiful protein to promote hair growth, but ample iron, zinc, and biotin. While rare, biotin deficiencies can result in brittle hair. Dieticians recommend three or more cups of lentils or beans each week.

Nuts
Brazil nuts are one of nature's best sources of selenium, an important mineral for the health of your skin and scalp. Walnuts contain alpha-linolenic acid, an omega-3 fatty acid that may help condition your hair. They are also a terrific source of zinc, as are cashews, pecans, and almonds. Zinc increases elasticity of the skin. A zinc deficiency can lead to hair shedding, so nuts should be a regular component of a healthy hair and skin menu.

Poultry
Chickens and turkeys offer the high-quality protein the body needs to maintain healthy skin and hair. Without adequate protein or with low-quality protein, one can experience weak brittle hair, while a profound protein deficiency can even result in loss of hair color. Poultry also provides iron with a high degree of bioavailability, meaning your body can easily reap its benefits.

Eggs
When it comes to healthy hair, eggs are one of the best protein sources you can find. They also contain biotin and vitamin B-12, which are important nutrients for skin and hair health.
Whole Grains
Whole grains, including whole-wheat bread and fortified whole-grain breakfast cereals, contain zinc, iron, and B vitamins, all-important for healthy skin and hair.

Oysters
Oysters may be better known for their reputation as an aphrodisiac, but they can also lead to healthy skin and hair. The key to these abilities is zinc a powerful antioxidant and important mineral for healthy flexible skin. In addition to getting zinc from whole grains and nuts, beef and lamb are also good sources of zinc.

Low-Fat Dairy Products
Low-fat dairy products like skin milk and yogurt are great sources of calcium, an important mineral for hair growth. They also contain whey and casein, two high-quality protein sources.

Carrots
Carrots are an excellent source of vitamin A, which promotes a healthy scalp along with good vision. The vitamin A from carrots comes from beta-carotene, a natural vitamin A source that doesn't store and build up in the body and therefore cannot become toxic the same way vitamins from supplements can. Beta-carotene is a member of the carotenoids, which are highly pigmented (red, orange, yellow), fat-soluble compounds naturally present in many fruits, grains, oils, and vegetables (green plants, carrots, sweet potatoes, squash, spinach, apricots, and green peppers). Alpha, beta, and gamma carotene are considered pro vitamins because they can be converted to active vitamin A.

Olive Oil
Olive Oil is a great source of healthy omega-3 fatty acid, it is good for the hair, and the skin and it comes with additional benefits to the heart and arteries. Olive oil contains a wide variety of valuable antioxidants that are not found in other oils. Olive oil is considerably rich in monounsaturated fats, most notably oleic acid. Olive oil was also found to reduce oxidative damage to DNA and RNA, which may be a factor in preventing cancer. In addition to the internal health benefits of olive oil, topical application is good for the skin. Olive oil has been known for generations not only for its healing qualities but also as a natural, deep penetration moisturizer, regenerating skin cells and softening the tissue.

Water and Hydration of the Skin
Water leaves the skin not only through the glands as perspiration but also by diffusion through the epidermis (insensible perspiration). It is a normal metabolic function of the skin for the body to lose water by an undetectable evaporation through the skin. Water moves through the body and serves its internal needs, then moves to the surface of the skin in a process called, “trans epidermal water loss” (TEWL).

Well-balanced skin maintains a healthy TEWL, leaving skin pleasingly plump and firm, and well hydrated. Water comprises up to 75% of the skin’s overall weight, but only 10-15% of the stratum corneum. The stratum corneum is key to the control of moisture loss. If the body lacks adequate water, the skin’s outer layers become dry and brittle. If the water content of the epidermis falls below 10%, it becomes dry, less flexible, and increasingly prone to damage, breakdown, and infection.

Drinking at least six glasses of water daily and eating fluid-rich fruits and vegetables helps normalize dry or oily conditions, and is essential to the moisture balance in the body and in the skin. The epidermis is about 35 micrometers thick when dry and dehydrated, but can swell to 48 micrometers when fully hydrated.
Part 3 - DISORDERS AND DISEASES OF THE SKIN

The training material in this section contains current information and research data that will help professional body Wrappers to become familiar with certain common disorders of the skin, which he or she may encounter in the course of providing wrapping services. Diagnosis of a client’s possible skin disorder is a matter for dermatologists. Though as a professional body Wrapper it is highly likely that you will encounter clients that exhibit signs or symptoms of any number of common skin ailments. As it follows, it is important that you recognize the most common of these and that you learn how to appropriately respond.

The Florida Board of Cosmetology is a governmental administrative body that oversees a number of license and registration types, including body wrapping registrations. The Florida laws that govern cosmetology are the same laws that also govern body Wrappers. Simply put, body Wrappers fall under the administrative division of cosmetology. Within these laws are the rules that set forth training requirements that must be completed by persons seeking to become a registered body wrapper.

The rule requiring that body wrappers complete training on the subject of skin disorders and diseases was passed by lawmakers with the intent that persons registered to provide body wrapping services be able to recognize skin diseases and disorders when they encounter a client who may have one, and of the many possible disorders and diseases, that the professional body wrapper will be able to distinguish between them. Consequently the professional body wrapper will know when body wrapping services can be performed on a client with a disorder or disease of the skin and when body wrapping services are prohibited because to do so could spread the client’s condition to others. Ultimately it was the lawmaker’s intent that body wrappers not spread infectious disease from person to person by providing services to clients with an infectious condition.

As a registered body wrapper, particularly in a busy salon you will come in contact with skin every day. However, body wrappers are limited to just that, body wrapping and are not dermatologists or physicians who diagnose and treat skin diseases and disorders. However to be compliant with Florida law it is necessary that you are able to recognize different skin conditions, and then determine which ones will preclude you from offering a body wrap to the client.

Florida law prohibits salon services be given to or by anyone that has an infections condition. The following law is from the Florida Administrative code and it addresses the rules pertaining to offering services to or by persons who may have an infectious condition.

Department of Business and Professional Regulation
FAC RULE 61G5: Board of Cosmetology
Chapter Title: COSMETOLOGY SALONS
61G5-20.007 Communicable Disease.
(1) No person engaged in the practice of cosmetology or a specialty in a salon shall proceed with any service to a person having a visible disease, pediculosis, or open sores suggesting a communicable disease, until such person furnishes a statement signed by a physician licensed to practice in the State of Florida stating that the disease or condition is not in an infectious, contagious or communicable stage.
(2) No cosmetologist or person registered to practice any specialty in Florida, who has a visible disease, pediculosis, or open sores suggesting a communicable disease, shall engage in the practice of cosmetology or any specialty, until such cosmetologist or registrant obtains a statement signed by a physician licensed to practice in the State of Florida stating that the disease or condition is not in an infectious, contagious, or communicable stage.
Florida law tells you that you are not permitted to give services when you have or when a client has a contagious disorder or disease, but it is up to you to identify which circumstances the law pertains to. But at the same time you don’t want to turn clients away when you are not required to. Not all skin disorders will interfere with performing a body wrapping service while the presence of other types strictly prohibits you from giving any kind of service. For example, a client with an excessive number of skin tags has a disorder that will not preclude you from offering your service. Conversely if your client has any type of open skin lesion you are strictly prohibited by law from performing a body wrapping service.

Any skin condition that you cannot positively identify should be referred tactfully but firmly to a physician. The most important thing to know is that a client who has an infection or contagious scalp or skin disorder, or any other condition that can be spread from one person to another should not be served in the salon, ever. Because you can expect that eventually you will be required to refuse a service to a client with a contagious condition it is a good idea to practice ways to tactfully suggest the client seek a physician’s treatment. You never want to offended or embarrass a client especially in front of others. The more comfortable you are with the words you will use when referring a client to a physician the more comfortable they will be when you say it in front of others.

Medical preparations issued under a prescription, for skin disorders, may be applied as prescribed by a licensed cosmetologist, only with the permission of a physician. However, persons with a body wrapper’s registration cannot facilitate a client in the application of any prescribed treatment. As a body wrapper the services you offer are restricted to those granted by the Florida Administrative Code 61G5-31.002 This rule mandates that as a registered body wrapper that you are only permitted to provide body wrapping services, and no other salon service. It is still very important that you have an understanding of the common types of skin disorders and diseases so you can recognize them and know what to do in instances that you come across them in the everyday course of your practice. So let’s get started!

DEFINITIONS OF IMPORTANT TERMS
Before describing the diseases of the skin so the salon professional will recognize them, it is well to understand what is meant by disease. The term "disease" refers to conditions that impair normal tissue function. Listed below are a number of important terms, which should be familiar to the professional body wrapper in order that he or she properly understands the subject of skin disorders.

Dermatology (der-mah-tol'-je) is the study of the skin, its nature-, structure, functions, diseases and treatment.
Dermatologist (der-mah-tol'-o-jist) is a skin specialist.
Trichology (tri-kol'-o-je) is the study of the hair and its diseases.
Etiology (e-te-0'l'-o-je) is the study of the causes of disease.
Diagnosis (di-ag-no' sis) is the recognition of a disease from its symptoms.
Prognosis (prog-no' sis) the foretelling of the probable course of a disease.
Pathology (pa-thol'-o-je) is the study of disease in the human body.

A disease is an abnormal condition affecting the normal state of health of the body of an organism.

A skin disease is a disease, which involves the skin. Some skin diseases are congenital, meaning that they are caused by genetics. Management of such diseases is often focused on keeping the patient comfortable and dealing with the symptoms, as the disease may not be curable. Other skin diseases are acquired, as in the case of infections which target the skin. Insect bites, contact with various substances, and allergic reactions can all cause skin disease.

An acute disease is a disease with either or both of a rapid onset, as in acute infection and a short course (as opposed to a chronic course of lengthy duration).

A chronic disease is one of long duration, usually mild but recurring.

An infectious (in-fek' shus) disease is a disease that is caused by the invasion of a host by agents whose activities harm the host's tissues due to pathogenic germs taken into the body as a result of contact with a contaminated object or lesion and can be transmitted to other individuals. A contagious disease is one that is transmittable by contact. It can be spread from person to person by contact, by air or some other vehicle of transmission.
Note: The terms infectious disease, communicable disease, and contagious disease are often used interchangeably. A congenital disease is one that is present in the infant at birth.

A seasonal disease is one that is influenced by the weather, as prickly heat in the summer, and forms of eczema more prevalent in cold weather.

An occupational disease is one that is due to certain kinds of employment, such as dermatitis, caused by coming in contact with cosmetics, chemicals or dyes.

A parasitic disease is one that is caused by vegetable or animal parasites, such as pediculosis, or ringworm.

A pathogenic disease is one produced by disease-producing bacteria, such as staphylococcus and streptococcus, pus-forming bacteria.

A systemic disease is a disease that involves many organs or the whole body and can be due to under or over functioning of the internal glands. It may be caused by faulty diet.

A venereal disease is a contagious disease commonly acquired by contact with an infected person during sexual intercourse.

An epidemic is the manifestation of a disease affecting many persons at the same time, and spreading from person to person in a locality where the disease is not permanently prevalent becoming extremely prevalent; widespread.

Allergy is a hypersensitivity disorder of the immune system. It is a sensitivity, which certain persons develop to normally harmless substances. Contact with certain types of cosmetics, medicines and tints or eating certain foods, may bring about an itching eruption, accompanied by redness, swelling, blisters, oozing and scaling is what would be considered a skin allergy and are somewhat common.

Inflammation is a basic way in which the body reacts to infection, irritation or other injury, the key feature being redness, warmth, swelling and pain. Inflammation is now recognized as a type of nonspecific immune response.

LESIONS OF THE SKIN
A lesion is a structural change in the tissues caused by injury or disease. There are three types: primary, secondary and tertiary. The salon professional is concerned with primary and secondary lesions.

Knowing the principal skin lesions helps the salon professional to distinguish between conditions, which may or may not be treated in a salon.

Symptom (simp' tum) is a sign of disease. The symptoms in diseases of the skin are divided into two groups.
1. Subjective (sub-jek' tiv)--symptoms that can be felt, as in itching, burning or pains.
2. Objective (ob-jek'tiv)--symptoms that can be seen, as in pimples, pustules or inflammation.

PRIMARY LESIONS
1. Macule (mak' ul) a small discolored spot or patch on the surface of the skin, neither raised nor sunken, as in freckles. Freckles are not harmful or the sign of a health problem. They're just pigment cells (cells that contain color) that are contained within the skin in small batches. Freckles are usually tan or light brown, flat, and very small (smaller than the head of a pin). Sometimes they overlap and run together so they may look larger.
2. Papule ( pap' ul) A papule is a solid elevation of skin with no visible fluid, varying in size from a pinhead to 1 cm. They can be either brown, purple, pink or red in colour. The papules may open when scratched and become infected and crusty. A papule, such as a pimple, may develop pus. A fibrous papule is a firm bump that most often occurs on the nose. It is very common. A fibrous papule develops during late adolescence or early adult life on the nose, or less often, elsewhere on the face. It is a dome shaped shiny lesion 2-6 mm in diameter, sometimes bearing a central hair. Although it looks similar to a skin-coloured mole (dermal naevas), it is more firm in texture.
3. **Wheal** (whel) an itchy, swollen lesion that lasts only a few hours. (Examples: hives, or the bite of an insect, such as a mosquito.) A wheal is a papule or plaque caused by swelling in the dermis. A wheal can also be a cutaneous condition left by a blow or as part of an allergic reaction.

4. **Tubercle** (tuh'ber-kel) in anatomy, the term tubercle may describe a round nodule, small eminence, or warty outgrowth or solid lump larger than a papule. A tubercle may be found on bones or skin, or, in cases of tuberculosis, in the lungs. Within the human body there are numerous sites where tubercles develop. On bones they are generally the sites of muscle insertions. Within the lungs and on the genitals, tubercles are sites of disease. It projects above the surface or lies within or under the skin. It varies in size from a pea to a hickory nut. (Example: a thick scar.)

5. **Tumor** (tu' mor) an external swelling, varying in size, shape and color. A tumor or tumour is commonly used as a synonym for a neoplasm (a solid or fluid-filled cystic) lesion that may or may not be formed by an abnormal growth of neoplastic cells) that appears enlarged in size. Tumor is not synonymous with cancer. While cancer is by definition malignant, a tumor can be benign, pre-malignant, or malignant, or can represent a lesion without any cancerous potential whatsoever.

6. **Vesicle** (ves' i-kl) in dermatology, a vesicle is a small blister, as on the skin. Vesicles also occur on the mucous membranes, such as the buccal mucosa (the lining of the mouth). The word vesicle comes from the Latin diminutive vesiculum meaning a small bag or bladder. In anatomy, a vesicle is any small pouch. For example, a water blister or a blood blister, is a vesicle.

7. **Bulla** (bu'lah) a blister containing a watery fluid, similar to a vesicle, but larger.

8. **Pustule** (pus' tul) an elevation of the skin having an inflamed base, with pus. A pustule is a small collection of pus in the top layer of skin (epidermis) or beneath it in the dermis. Pustules frequently form in sweat glands or hair follicles. Pus is a mixture of inflammatory cells and liquid. Simply put, a pustule is a little pimple full of pus. (Example: pus filled pimple.)

9. **Cyst**: semisolid or fluid lump above and below skin.

**SECONDARY LESIONS**

The secondary lesions are those in the skin, which develop, in the later stages of disease. These are:

1. **Scale** is visible epidermal flakes that accumulate; these flakes can be the result of abnormalities of shed epidermal cells and can be dry or greasy. A common type of scale is excessive dandruff.

2. **Crust** is a dried collection of blood, serum, or pus. Also called a scab, a crust is often part of the normal healing process of many infectious lesions.

3. **Excoriation** (eks-ko' re a-shun) a raw surface due to the loss of the superficial skin characterized by excessive scratching or picking of normal skin or skin with minor surface irregularities or after an injury.

4. **Fissure** (FISH-er) A linear loss of the top two layers of skin, the dermis and epidermis, with sharply defined, nearly vertical walls. Examples would be cracked chapped hands and lips, or eczema.

5. **Ulcer** (ul' ser), an open lesion on the skin or mucous membrane of the body, accompanied by pus, and loss of skin depth.

6. **Scar** (cicatrix) (si-ka' triks), Scar tissue is likely to form after healing of an injury or skin condition that has penetrated the dermal layer.

7. **Keloid**: thick scar resulting from excessive growth of fibrous tissue

8. **Stain** an abnormal discoloration remaining after the disappearance of moles, freckles or liver spots, sometimes apparent after certain diseases.

**DISEASES OF THE HAIR FOLICLE**

**Folliculitis** occurs when hair follicles become infected, often with Staphylococcus aureus or other bacteria. Certain variations of folliculitis are also known as hot tub folliculitis and barber's itch. Severe infections can cause permanent hair loss and scarring, and even mild folliculitis can be uncomfortable and embarrassing. It can be on the scalp but it can also be on any part of the body that has hair follicles, which other than the palms and bottom of the feet is about everywhere else.

The infection usually appears as small, white-headed pimples around one or more hair follicles — the tiny pockets from which each hair grows. Most cases of folliculitis are superficial, and they may itch, but on occasion they're painful too. Superficial folliculitis often clears by itself in a few days, but deep or recurring folliculitis may need medical treatment.

Folliculitis signs and symptoms vary, depending on the type of infection. Superficial folliculitis, which affects the
Upper part of the hair follicle, may cause:

- Clusters of small red or pus-filled bumps that develop around hair follicles
- Pus-filled blisters that break open and crust over
- Red and inflamed skin
- Itchiness or tenderness

Deep folliculitis starts deeper in the skin surrounding the hair follicle and affects the entire hair follicle. Signs and symptoms include:

- A large swollen bump or mass
- Pus-filled blisters that break open and crust over
- Pain
- Possible scars once the infection clears

Types of superficial folliculitis

Superficial forms of folliculitis include:

- **Staphylococcal folliculitis.** This common type is marked by itchy, white, pus-filled bumps that can occur anywhere on your body where hair follicles are present. When it affects a man's beard area, it's called barber's itch. It occurs when hair follicles become infected with Staphylococcus aureus (staph) bacteria. Although staph bacteria live on your skin all the time, they generally cause problems only when they enter your body through a cut or other wound. This can occur through shaving, scratching or with an injury to the skin.

- **Pseudomonas folliculitis** (hot tub folliculitis). The pseudomonas bacteria that cause this form of folliculitis thrive in a wide range of environments, including hot tubs in which the chlorine and pH levels aren't well regulated. Within eight hours to five days of exposure to the bacteria, a rash of red, round, itchy bumps will appear that later may develop into small pus-filled blisters (pustules). The rash is likely to be worse in areas where your swimsuit holds contaminated water against your skin.

- **Pseudofolliculitis barbae.** An inflammation of the hair follicles in the beard area, pseudofolliculitis barbae affects men when shaved hairs curve back into the skin. This leads to inflammation and, sometimes, to dark raised scars (keloid scars) on the face and neck.

- **Pityrosporum folliculitis.** Especially common in teens and adult men, pityrosporum folliculitis is caused by a yeast and produces chronic, red, itchy pustules on the back and chest and sometimes on the neck, shoulders, upper arms and face.

Types of deep folliculitis

Types of deep folliculitis include:

- **Sycosis barbae.** This occurs in men who have begun shaving and involves inflammation along the whole hair follicle. Small pustules appear at first on the upper lip, chin and jaw, then become more prevalent as shaving continues. Severe sycosis barbae may cause scarring.

- **Gram-negative folliculitis.** This sometimes develops if you're receiving long-term antibiotic treatment for acne. Antibiotics alter the normal balance of bacteria in the nose, leading to an overgrowth of harmful organisms (gram-negative bacteria). In most people, this doesn't cause problems, and the flora in the nose returns to normal once antibiotics are stopped. In a few people, however, gram-negative bacteria spread and cause new, sometimes-severe acne lesions.

- **Boils and carbuncles.** These occur when hair follicles become deeply infected with staph bacteria. A boil usually appears suddenly as a painful pink or red bump. The surrounding skin also may be red and swollen. The bump then fills with pus and grows larger and more painful before it finally ruptures and drains. Small boils usually heal without scarring, but a large boil may leave a scar. A carbuncle is a cluster of boils that often occurs on the back of the neck, shoulders, back or thighs. Carbuncles cause a deeper and more severe infection than does a single boil. As a result, they develop and heal more slowly and are likely to leave scars.

- **Eosinophilic folliculitis.** Seen primarily in those with HIV, this type of folliculitis is characterized by recurring patches of inflamed, pus-filled sores, primarily on the face and sometimes on the back or upper arms. The sores usually spread, may itch intensely and often leave areas of darker than normal skin (hyperpigmentation) when they heal. The exact cause of eosinophilic folliculitis isn't known, although it may involve the same yeast-like fungus responsible for pityrosporum folliculitis.

- **Folliculitis, decalvans** causes scarring with hair loss (alopecia). There are areas of "corn stalking" (grouped hairs arising within the area of alopecia), redness (erythema), crusting, and pustules. Due to severe scarring, permanent hair loss occurs in the involved sites.
Treatments and drugs
Mild cases of folliculitis will likely go away on their own. Persistent or recurring cases are likely to require treatment, however. The therapy your doctor recommends will depend on the type and severity of your infection.

Causes
Folliculitis is caused by an infection of the hair follicles by bacteria, viruses or fungi. The most common cause of folliculitis is Staphylococcus aureus bacteria.

Follicles are densest on your scalp, but they occur everywhere on your body except your palms, soles and mucous membranes, such as your lips. If follicles become damaged, they become susceptible to invasion.

- The most common causes of follicle damage include:
  - Friction from shaving or tight clothing
  - Excessive perspiration
  - Inflammatory skin conditions, including dermatitis and acne
  - Injuries to your skin, such as abrasions or surgical wounds
  - Coverings on your skin, such as plastic dressings or adhesive tape

Prevention
Although it's not always possible to prevent folliculitis, these measures may help:

- Avoid constrictive clothing. Tight clothes — especially jeans and athletic wear — may be stylish, but make sure they don't chafe your skin.
- Shave with care. Use an electric razor or a new blade every time you shave. Be especially careful to keep the shaved area clean and to avoid cuts and nicks. If you're a woman who gets frequent infections, you may want to consider depilatories or other methods of hair removal.
- Maintain hot tubs. If you own a hot tub, clean it regularly and add chlorine when recommended. Use commercial tubs only if you're sure they're well maintained

DISEASES OF THE SEBACEOUS (OIL) GLANDS
Most people consider overactive sebaceous glands simply as acne, but there are many different types of problems and treatments for this disorder. The sebaceous glands are oil-producing glands that are near the hair follicles on the skin. Treating enlarged sebaceous glands can be difficult and can involve using strong medications that have severe side effects. Never try to diagnose or treat clients with any disorder, but you should be able to recognize what the disorder is and refer them to a physician for treatment.

We commonly associate overactive sebaceous glands with the face but it can occur and cause skin eruptions anywhere on the body that has oil glands.

Some of the diseases associated with overactive sebaceous glands are comedones, milia, acne, seborrhea, rosacea, steatoma, asteatosis, seborrheic dermatitis, and furuncle. These are several common diseases of the sebaceous (oil) glands, which the salon professional should be able to identify and understand.

Comedones (kom-e-do' nez) or blackheads are a worm-like mass of hardened sebum, appearing most frequently on the face, forehead and nose. Blackheads accompanied by pimples often occur in youths between the age of 13 and 20. During the adolescent period, the activity of the sebaceous glands is stimulated, thereby contributing to the formation of blackheads and pimples. When the hair follicle is filled with an excess of oil from the sebaceous gland, a blackhead forms and creates a blockage at the mouth of the follicle. This causes irritation and may result in an inflamed pimple filled with pus. Such a lesion is known as acne.

The treatment for blackheads is to reduce the skin's oiliness by local applications, and the removal of blackheads under sterile conditions. Thorough skin cleansing each night is a very important factor. Cleansing creams and lotions often achieve better results than common soap and water. Should this condition become severe, medical attention is necessary.
Milia (mil’ e-ah), or whiteheads A disorder of the sebaceous (oil) glands caused by the accumulation of sebaceous matter beneath the skin. This may occur on any part of the face, neck and occasionally on the chest and shoulders. Milia are usually retention cysts (retaining fluids normally secreted in a body cavity) of sebaceous glands or hair follicles. Whiteheads are associated with fine-textured and often dry types of skin.

Steatoma (ste-ah-to’ mah ), or sebaceous cyst, is a subcutaneous tumor of the sebaceous glands. Steato is the prefix for fat. Steatoma is a fatty mass; the contents consisting of sebum, from pea to orange in size; usually occurring on the scalp, neck and back. A steatoma is sometimes called a wen.

Asteatosis (as'te-ah-to'sis) is the opposite of seborrhea, and is characterized, therefore, by a reduction in the amount of sebum secreted by the skin resulting is extreme dry skin. Asteatosis cannot be called a disease, but it is a condition, which is associated with several cutaneous disorders, such as ichthyosis, dermatitis exfoliativa, long-continued scaly eczema, and others. It is also seen in old age, as a part of senile changes in the skin. It has been found to occur as the result of some bodily disorders. And in local conditions, it may be caused by alkalies, such as are found in soaps and washing powders. In cases exposure to alkalies, and detergents the condition is not the result of a reduction in the sebum secreted by the skin so much as it is a result of the repeated removal of the sebum that has been secreted on the skin.

Seborrhea (seb-o-re’ah) is a skin condition of the fat-producing glands, characterized by an overabundance, and perhaps abnormal, secretion of fatty matter, appearing on the skin as an oily coating, crusts, or scales. Seborrhea is generally recognized as an excessive oily or shiny condition of the nose, forehead or scalp indicates the presence of seborrhea. On the scalp, it is readily detected by the unusual amount of oil on the hair.

Rosacea: chronic inflammatory congestion of cheeks and nose characterized by redness, dilation of blood vessels, and formation of papules and pustules. Rosacea is commonly mistaken for adult acne, primarily because it typically appears in adults and it looks somewhat like pimples. In most cases it is easily treated with medication. A dermatologist should be consulted to get a prescription.

Acne ( ak’ ne ) Acne is a disorder resulting from the action of hormones and other substances on the skin's oil glands (sebaceous glands) and hair follicles. These factors lead to plugged pores and outbreaks of lesions. Acne lesions usually occur on the face, neck, back, chest, and shoulders. There is a bacteria that normally lives on the skin called Propionibacterium acnes. This bacteria lives on the sebum produced by the skin oil glands. Sometimes, this bacteria multiplies and causes inflammation and acne.

Acne is actually caused by a combination of several factors:
1. Rising hormone levels during adolescence cause enlargement and over activity of the oil glands in the skin. 2. The canals that bring this oil to the surface become blocked with keratin (a protein that is part of the skin).
3. When these oil glands are overactive and the canals are blocked, the bacteria that normally live on the skin and in the oil become trapped. They subsequently multiply, and cause inflammation and irritation.

Doctors describe acne as a disease of the "Pilosebaceous Unit's" (PSUs). Found over most of the body, PSUs consist of a sebaceous gland connected to a canal, called a follicle that contains a fine hair. Cells called keratinocytes line the follicle. These units are most numerous on the face, upper back, and chest. The sebaceous glands make an oily substance called sebum that normally empties onto the skin surface through the opening of the follicle, commonly called a pore.

Although acne is usually not a serious health threat, it can be a source of significant emotional distress. Severe acne can lead to permanent scarring. Stress does not cause acne but it has been found that stress can make acne worse. Acne or common pimples is also known as acne simplex or acne vulgaris. Acne is a common skin condition that afflicts most people, to a varying degree, during the teen years. However, the disease is by no means restricted to this age group; adults in their 20's or 30's may have acne. Don't think that because acne is common, treatment is unnecessary. It is always best to be treated by a dermatologist. Waiting to "outgrow" acne can be a serious mistake. Medical treatment can improve your appearance and self-esteem, and prevent the development of lifelong scars.
COURSE UNIT 1 - DISEASE AND DISORDERS OF THE SKIN

**Dry Hair and Scalp:** caused by inactive sebaceous glands; aggravated by dry winter or desert climate.
1. Appears dull, dry, and lifeless.
2. Avoid frequent shampooing. Also avoid strong soaps, detergents, or products with high alcohol content.

**Oily Hair and Scalp** is caused by overactive sebaceous glands; characterized by greasy building on scalp and oily coating on hair.
1. Regular shampooing with clarifying shampoos helps. Also good personal hygiene.
2. Well-balanced diet and exercise.

**DISEASES OF THE SUDORIFEROUS (SWEAT) GLANDS**

**Bromidrosis** (brom-id-ro'sis), or osmidrosis (oz-mi-dro' sis), refers to body odor, a foul smelling perspiration, usually noticeable in the armpits or on the feet. Bromidrosis is determined largely by apocrine gland secretion. There are many therapies to treat bromidrosis, including nonoperative and operative ones.

Nonoperative treatments, such as topical antiperspirants, systemic agents, and iontophoresis, have been found not to have a permanent effect. Most surgeons (90%) chose surgical methods to remove axillary sweat glands for bromidrosis and 90.69% reported good results in the reduction of body odor.

**Anidrosis** (an-i-dro' sis), or lack of perspiration, is the inability to sweat normally. While this may not sound like a serious condition, anidrosis can be life-threatening. When you don't perspire, your body can't cool itself, which can lead to overheating and sometimes to heatstroke, a potentially fatal condition. Anidrosis is often a result of fever or particular skin diseases. Anidrosis requires medical treatment.

**Hyperidrosis** (hi' per-i-dro' sis), is a disorder marked by excessive sweating. Sweating is the body's way of cooling itself and is a normal response to a hot environment or intense exercise. However, excessive sweating unrelated to these conditions can be a problem called hyperhidrosis. Hyperhidrosis is caused general body weakness. The most commonly affected parts are the armpits, joints and feet. Requires medical treatment. Hyperhidrosis It usually begins at puberty and affects the palms, soles, and armpits.

Those with constantly sweaty armpits and feet may have to contend with the unpleasant odor that results from the bacterial breakdown of sweat and cellular debris (bromhidrosis). People with hyperhidrosis often must change their clothes at least once a day, and their shoes can be ruined by the excess moisture. Hyperhidrosis may also contribute to such skin diseases as athlete's foot (tinea pedis) and contact dermatitis.

There are three basic forms of hyperhidrosis: emotionally induced; localized; and generalized. Emotionally induced hyperhidrosis typically affects the palms of the hands, soles of the feet, and the armpits and occurs when under extreme stress or nervousness or anxiety. Localized hyperhidrosis typically affects the palms, armpits, groin, face, and the area below the breasts in women, while generalized hyperhidrosis may affect the entire body.

**Miliaria rubra** (mil-e-a re-a roo’ bra) (prickly heat)- Miliaria is an acute inflammatory disorder of the eccrine sweat glands that often occurs in conditions of increased heat In miliaria rubra, obstruction of the eccrine sweat glands occurs deeper within the epidermis and results in small red pustules, accompanied by burning and itching of skin. Caused by blockage of the sweat ducts, which results in the leakage of eccrine sweat into the epidermis or dermis.

**INFLAMMATION**

**Herpes simplex** (hur'pez sim' pleks) virus infection of unknown origin, commonly called fever blisters. It is characterized by the eruption of a single or group of vesicles on a red swollen base. The blisters usually appear on the lips, nostrils or any part of the face and rarely last more than a week. Indigestion may be one of the causes.

**Psoriasis** (so-ri'ah-sis) is a common, chronic, inflammatory skin disease whose cause is unknown. It is usually found on the scalp, elbows, knees, chest and lower back; rarely on the face. The lesions are round dry patches covered with coarse, silvery scales. If irritated, bleeding points occur. While not contagious, it can be spread by irritation.

**Dermatitis** (der-mah-ti'tis) is a term used to denote an inflammatory condition of the skin. The lesions come in various forms, such as vesicles or papules.
Atopic Dermatitis or AD and is also called Eczema (ek‘ze’-mah) is an inflammation of the skin of acute or chronic nature, presenting many forms of dry or moist lesions. Itching, burning, and various other unpleasant sensations frequently accompany it. All cases of eczema should be referred to a physician for treatment. Its cause is unknown. Eczema is caused by an allergic reaction and is considered an allergic disorder.

People with AD experience cycles of worsening symptoms followed by periods of improvement. They also have an increased susceptibility to certain skin infections. Although the specific causes of AD are unknown, it is thought to occur from a combination of genetic, immunologic, and environmental factors.

Occupational Disorders

Occupational disorders refer to abnormal conditions resulting from contact with chemicals in the course of their jobs. Some clients that get regular chemical services may develop allergies to certain cosmetic preparations, aniline derivative tints or cold waving lotions. Certain ingredients in cosmetics, antiseptics, cold waving lotions and aniline derivative tints may cause eruptive skin infections known as dermatitis venenata (ven-e-na’ tah).

Allergy Related Dermatitis

Urticaria - Hives and inflammation caused by an allergy to specific drugs or foods
Dermatitis Venenata - Allergy to ingredients in cosmetics
Dermatitis Medicamentosa - Dermatitis that occurs after a medical injection

Contact Dermatitis

Contact dermatitis is an inflammation of the skin caused by direct contact with an irritating substance or allergy-causing substance (irritant or allergen). Reactions may vary in the same person over time. A history of any type of allergies increases the risk for this condition.

Irritant dermatitis, the most common type of contact dermatitis, involves inflammation resulting from contact with acids, alkaline materials such as soaps and detergents, solvents, or other chemicals. The reaction usually resembles a burn.

Allergic contact dermatitis, the second most common type of contact dermatitis, is caused by exposure to a substance or material to which you have become extra sensitive or allergic. The allergic reaction is often delayed, with the rash appearing 24 - 48 hours after exposure. The skin inflammation varies from mild irritation and redness to open sores, depending on the type of irritant, the body part affected, and your sensitivity.

Over treatment dermatitis is a form of contact dermatitis that occurs when treatment for another skin disorder causes irritation. Common allergens associated with contact dermatitis include:

| Poison ivy, poison oak, poison sumac | Fabrics and clothing |
| Other plants | Detergents |
| Nickel or other metals | Solvents |
| Medications | Adhesives |
| Rubber or latex | Fragrances, perfumes |
| Cosmetics | Other chemicals and substances |

Contact dermatitis may involve a reaction to a substance that you are exposed to, or use repeatedly. Although there may be no initial reaction, regular use can eventually cause sensitivity and reaction to the product.

Some products cause a reaction only when they contact the skin and are exposed to sunlight (photosensitivity). These include shaving lotions, sunscreens, sulfa ointments, some perfumes, coal tar products, and oil from the skin of a lime. A few airborne allergens, such as ragweed or insecticide spray, can cause contact dermatitis.
Symptoms
- Itching (pruritus) of the skin in exposed areas
- Skin redness or inflammation in the exposed area
- Tenderness of the skin in the exposed area
- Localized swelling of the skin
- Warmth of the exposed area (may occur)
- Skin lesion or rash at the site of exposure
- Lesions of any type: redness, rash, papules (pimple-like), vesicles, and bullae (blisters)
- May involve oozing, draining, or crusting
- May become scaly, raw, or thickened

It is important that you know when a must refuse a client from a body Wrapping service, and instead refer the client to a physician. You should try to employ protective measures, such as the use of rubber gloves or protective creams, whenever possible. What may appear to be an allergic reaction or a skin rash and perhaps doesn’t look as though it is contagious could be something wholly different. You should never provide services when there is any open lesion or obvious disruption to the skin. Always refer clients with an aggravated skin or scalp condition to a physician.

Signs and tests
The diagnosis is primarily based on the skin appearance and a history of exposure to an irritant or an allergen.

According to the American Academy of Allergy, Asthma, and Immunology, "patch testing is the gold standard for contact allergen identification." Allergy testing with skin patches may isolate the suspected allergen that is causing the reaction.

Patch testing is used for patients who have chronic, recurring contact dermatitis. It requires three office visits and must be done by a clinician with detailed experience in the procedures and interpretation of results. On the first visit, small patches of potential allergens are applied to the skin. These patches are removed 48 hours later to see if a reaction has occurred.

A third visit approximately 2 days later is to evaluate for any delayed reaction. You should bring suspected materials with you, especially if you have already tested those materials on a small area of your skin and noticed a reaction.

Other tests may be used to rule out other possible causes, including skin lesion biopsy or culture of the skin lesion (see skin or mucosal biopsy culture).

Treatment
Recommend the client contact their care provider. Complications from dermatitis can occur and it can get worse. The physician will vary treatment depending on which type of dermatitis it is. Initial treatment includes thorough washing with lots of water to remove any trace of the irritant that may remain on the skin. You should avoid further exposure to known irritants or allergens. In some cases, the best treatment is to do nothing to the area.

Corticosteroid skin creams or ointments may reduce inflammation. Carefully follow the instructions when using these creams, because overuse, even of low-strength over-the-counter products, may cause a troublesome skin condition. In severe cases, systemic corticosteroids may be needed to reduce inflammation. These are usually tapered gradually over about 12 days to prevent recurrence of the rash. In addition to or instead of corticosteroid skin treatment, your doctor may prescribe tacrolimus ointment or pimecrolimus cream.

Wet dressings and soothing anti-itch (antipruritic) or drying lotions may be recommended to reduce other symptoms.

Prevention
Avoid contact with known allergens. Use protective gloves or other barriers if contact with substances is likely or unavoidable. Wash skin surfaces thoroughly after contact with substances. Avoid over treating skin disorders.
PIGMENTATIONS OF THE SKIN

In abnormal conditions, pigment may come from inside or outside the body. Abnormal colors are seen in every skin disease and many systemic disorders. Pigmentation is observed when certain drugs are being taken internally.

**Lentigines** (len-ti’ j’ i-nez) (singular, lentigo), Lentigines: When there is one lentigo, there are usually more lentigines. A lentigo is a type of freckle that is a small tan, brown, or black spot which tends to be darker than the usual (ephelis-type) freckle and which do not fade in the winter. This kind of spot is referred to as lentigo simplex. Although lentigines may be part of a genetic disorder, for the most part they are just isolated and unimportant spots. (The genetic disorder in which lentigines occur is called the LEOPARD syndrome.) Lentigo is the Latin word for lentil. A lentigo looks like a lentil bean. The plural is lentigines.

**Stains** are abnormal brown skin patches, having a circular and irregular shape. Their permanent color is due to the presence of blood pigment. They occur during ageing, after certain diseases and after the disappearance of moles, freckles and liver spots. The cause is unknown.

**Chloasma** (klo-az’ mah) also known as **Melasma**, is characterized by increased deposits of pigment in the skin. It appears as a blotchy, brownish pigmentation on the face, mainly on the forehead, nose and cheeks, which develops slowly and fades with time. Chloasma is also called moth patches or liver spots. The pigmentation is due to overproduction of melanin by the pigment cells, melanocytes. There is a genetic predisposition to melasma.

**Triggers include:**

- Pregnancy – the pigment often fades a few months after delivery.
- Hormonal contraceptives, including oral contraceptive pills and injected progesterone
- Sun exposure
- Scented or deodorant soaps, toiletries and cosmetics – a photo-toxic reaction
- Unknown factors, when it arises in apparently healthy, normal, non-pregnant women

**Naevus** (ne’ vus) is commonly known as birthmark. It is a small or large malformation of the skin due to pigmentation or dilated capillaries.

**Tan**: change in pigmentation of skin caused by exposure to the sun or ultraviolet rays.

**Leucoderma** (lu-ko-der’ mah) refers to abnormal whiteness in patches of the skin, due to congenital defective pigmentation. Classified as:

1. **Vitiligo** (vit-i’ li-go) an acquired condition of leuco derma affecting the skin or the hair. The only treatment is a matching cosmetic color, making it less conspicuous.

2. **Albinism** (al’ bin-izm) congenital absence of melanin pigment in the body including the skin, hair and eyes. The silky hair is white. The skin is pinkish white and will not tan.

**HYPERTROPHIES (NEW GROWTHS)**

Hypertrophies are abnormal growths of the skin; many are benign or harmless.

**Keratoma** (ker-ah-to’ mah), or callous is a horny tumor protecting the inner tissues, its an acquired, superficial, round thickened patch of epidermis, due to pressure friction and is usually on the hands and feet.

**Moles** are small brownish spots or blemishes on the skin. Moles are believed to be inherited. They range in color from pale tan to brown or bluish black. Some moles are small and flat, resembling freckles, while others are more deeply seated and darker in color. Large, dark hairs often occur in moles. Moles are growths on the skin that are usually brown or black. Moles can appear anywhere on the skin, alone or in groups. As the years pass, moles usually change slowly, becoming raised and/or changing color. Often, hairs develop on the mole. Some moles may not change at all, while others may slowly disappear over time. Most moles are not dangerous. The only moles that are of medical concern are those that looks different than other existing moles or those that first appear after age 20. If you notice

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changes in a mole's color, height, size, or shape, you should have a dermatologist (skin doctor) evaluate it. You also should have moles checked if they bleed, ooze, itch, appear scaly, or become tender or painful.

**CAUTION:** Hairs growing from moles should not be pulled out, it can cause changes in the mole and could cause a malignancy. Body wrappers are not permitted to perform any services other than body wrapping. Do not treat nor remove hair from moles.

**Skin tags** are small outgrowth of the skin; occurs most frequently on neck of an older person. Skin tags usually appear in multiples. They are harmless, but are often considered unsightly and can be removed by a dermatologist. However, the sudden appearance of skin tags that begin to multiple can be a sign of changes in the internal condition of the body and it is a good idea to get a checkup if they begin to multiply rapidly.

**Verruca** (ve-roo' kah) **vulgaris** is the technical term for wart. The common wart is a benign growth caused by localized infection with one of the many types of human papillomavirus. It can spread from one location to another, particularly along a scratch in the skin. These small DNA viruses are part of the papovavirus group. Warts are especially common among children and adolescents and may occur on any mucocutaneous surface. The hands are a particularly frequent location. The typical wart is a rough-surfaced nodule that may be either lighter or darker than the surrounding skin.

**SKIN CANCER:** if typically caused by overexposure to the sun, it comes in three distinct forms, varying in severity.

1. **Basal cell carcinoma:** most common type and the least severe. Often characterized by light or pearly nodules.

2. **Squamous cell carcinoma:** more serious than basal cell and often characterized by scaly red papules or nodules.

3. **Malignant melanoma:** most serious form of skin cancer; often characterized by black or dark brown patches on the skin that may appear uneven in texture, jagged, or raised.

**HELPFUL NOTE**
As a body Wrapper you may see areas of your clients that is not easily visible to them. It is a good idea to observe moles and other non-infectious skin anomalies and if you notice a change in the size, or color or of the surrounding color of moles mention to your client that they may want to have it checked out by a physician.

**CONTAGIOUS DISORDERS OF THE SKIN**

**Staphylococci Infections**
Staphylococcus is a group of bacteria that can cause a number of diseases as a result of infection of various tissues of the body. Staphylococcus is more familiarly known as Staph (pronounced "staff"). Staph-related illness can range from mild and requiring no treatment to severe and potentially fatal. In most cases staphylococcal infections are contagious and can be transmitted from person to person. Since pus from infected wounds may contain the bacteria, proper hygiene and handwashing is required when caring for Staph-infected wounds.

The name Staphylococcus comes from the Greek staphyle, meaning a bunch of grapes, and kokkos, meaning berry, and that is what Staph bacteria look like under the microscope, like a bunch of grapes or little round berries.

**What types of diseases are caused by Staph?**
Skin infections are the most common type of disease produced by Staphylococcus. Staph infections of the skin can progress to impetigo (a crusting of the skin) or cellulitis (inflammation of the connective tissue under the skin, leading to swelling and redness of the area).
COURSE UNIT 1 - DISEASE AND DISORDERS OF THE SKIN

When the bacteria enter the bloodstream and spread to other organs, a number of serious infections can occur. Spread of the organisms to the bloodstream is known as bacteremia or sepsis. Staphylococcal pneumonia predominantly affects people with underlying lung disease and can lead to abscess formation within the lungs. Infection of the heart valves (endocarditis) can lead to heart failure.

Staphylococcal food poisoning is an illness of the bowels that causes nausea, vomiting, diarrhea, and dehydration. It is caused by eating foods contaminated with toxins produced by Staphylococcus aureus. Symptoms usually develop within one to six hours after eating contaminated food. The illness usually lasts for one to three days and resolves on its own. Patients with this illness are not contagious, since toxins are not transmitted from one person to another.

Toxic shock syndrome is an illness caused by toxins secreted by Staph aureus bacteria growing under conditions in which there is little or no oxygen. Toxic shock syndrome is characterized by the sudden onset of high fever, vomiting, diarrhea, and muscle aches, followed by low blood pressure (hypotension), which can lead to shock and death. There may be a rash resembling sunburn, with peeling of skin. Toxic shock syndrome was originally described and still occurs especially in menstruating women using tampons.

Who is at risk for Staph infections?
Anyone can develop a Staph infection, although certain groups of people are at greater risk, including the very young, the very old, and the very sick, all have an increased risk of developing Staph infections.

Staph infections are contagious until the infection has resolved. Direct contact with an infected sore or wound, or with personal-care items such as razors, bandages, etc. are common routes of transmission. Casual contact such as kissing or hugging does not pose a great risk for transmission if there is no direct contact with the infected area.

What are the symptoms and signs of a Staph infection?
Staphylococcal disease of the skin usually results in a localized collection of pus, known as an abscess, boil, or furuncle, depending upon the exact type of lesion that is present. The affected area may be red, swollen, and painful. Drainage or pus is common. When Staph is in the blood (bacteremia or sepsis), it can cause high fevers, chills, and low blood pressure.

Treatment
Over 30 different types of Staphylococci can infect humans, but most infections are caused by Staphylococcus aureus. Staphylococci can be found normally in the nose and on the skin (and less commonly in other locations) of 25%-30% of healthy adults. In the majority of cases, the bacteria do not cause disease. However, damage to the skin or other injury may allow the bacteria to overcome the natural protective mechanisms of the body, leading to infection.

Antibiotics are used to treat these infections but there's been a gradual change in how well these antibiotics work. While most staph infections used to be treatable with penicillin, that changed in the 1980s and stronger antibiotics are now used. In about 50% of cases, however, resistance is being seen to even these stronger antibiotics.

This is not just happening in hospitals, as once was the case, but is now being seen in the general community. Many doctors are accustomed to using certain antibiotics, but those then fail because of antibiotic resistance. There are now several more potent antibiotics but doctors need to know when to use them.

Another treatment is sometimes used for staph infections; if the infection goes so deep that it involves muscles, or the fibers that enclose muscles, it will need to be surgically cleaned.

Can staph infection be prevented?
You can take steps to help prevent staph infection. Any time you have a cut or break in the skin, wash it with soap and water, keep it clean and dry, use antiseptic ointment and keep it covered.

The staph infection is contagious if the wound is weeping or draining, and if people share towels or other items that are contaminated. Wearing foot coverings in locker rooms and other commonly used areas can help prevent contamination.
If the sore becomes unusually painful or red, get prompt medical attention. If red lines develop, that's a sign that the infection is spreading and needs immediate medical attention.

Staph Infection at a Glance
- Staphylococcus is a group of bacteria that can cause a multitude of diseases.
- Staph infections may cause disease due to direct infection or due to the production of toxins by the bacteria.
- Boils, impetigo, food poisoning, cellulitis, and toxic shock syndrome are all examples of diseases that may be caused by Staphylococcus.
- Methicillin-resistant Staphylococcus aureus, known as MRSA, is a type of Staphylococcus aureus that is resistant to the antibiotic methicillin and other drugs in this class.
- Staph infections are treated with topical, oral, or intravenous antibiotics, depending upon the type of infection.

BOILS, FURUNCLES, AND CARBUNCLES
A boil is a localized infection in the skin that generally starts as a reddened, tender area. Over time, the area becomes firm, hard, and tender. Eventually, the center of the boil softens and becomes filled with infection-fighting white blood cells from the bloodstream to eradicate the infection. This collection of white blood cells, bacteria, and proteins is known as pus. Finally, the pus "forms a head," which can be surgically opened or spontaneously drain out through the surface of the skin. Pus enclosed within tissue is referred to as an abscess. A boil is also referred to as a skin abscess. There are several different types of boils:
- Furuncle or carbuncle: This is an abscess in the skin usually caused by the bacterium Staphylococcus aureus. A furuncle can have one or more openings onto the skin and may be associated with a fever or chills. The term furuncle is used to refer to a typical boil that occurs within a hair follicle. The term carbuncle is typically used to represent a larger abscess that involves a group of hair follicles. A carbuncle can form a hardened lump that can be felt in the skin. The condition of having chronic, recurring boils is referred to as furunculosis or carbunculosis.

Carbuncle (kar' bun-k'l) is the result of an acute deep-seated staphylococci infection larger than a furuncle, or boil. It should be referred to a physician.

Furuncle (fer-un'k'l) or boil A Furuncle is a collection of pus. It is an acute staphylococci infection of a hair follicle producing constant pain. A furuncle is the result of an active inflammatory process limited to a definite area and subsequently producing a pustule perforated by a hair.

Treatment
The primary treatment for most boils is heat application. Generally most simple boils can be treated at home, usually with hot soaks or hot packs. Heat application increases the circulation to the area and allows the body to better fight off the infection by bringing antibodies and white blood cells to the site of infection. Ideally, the heat treatment should begin as soon as a boil is noticed since early treatment may prevent later complications.

As long as the boil is small and firm, opening the area and draining the boil is not helpful, even if the area is painful. However, once the boil becomes soft or "forms a head" (that is, a small pustule is noted in the boil), it can be drained. Once drained, pain relief can be dramatic. Most small boils, such as those that form around hairs, drain on their own with soaking. On occasion, and especially with larger boils, the larger boil will need to be drained or "lanced" by a health-care practitioner. Frequently, these larger boils contain several pockets of pus that must be opened and drained.

Antibiotics are often not very helpful in treating abscesses. The main treatments include hot packs and draining ("lancing") the abscess, but only when it is soft and ready to drain. Although antibiotics do little in treating abscesses, they are often used to eliminate the accompanying bacterial infection. Especially if there is an infection of the surrounding skin, the doctor often prescribes antibiotics. However, antibiotics are not needed in every situation. In fact, antibiotics have difficulty penetrating the outer wall of an abscess well and often will not cure an abscess without additional surgical drainage.

When should I seek medical attention?
While boils typically resolve on their own and therefore have an excellent prognosis, there are special cases in which medical care should be sought when boils develop. Rarely, boils may spread or persist, leading to more widespread infections. Complications however can occur from trying to treat a boil when other factors exist. An abscess that
results in a fever, or if the person has a long-term illness (such as cancer or diabetes) or are on medication that suppresses the immune system, they should contact a healthcare practitioner even for a small boil or furuncle.

**What can be done to prevent boils (abscesses)?**
There are some measures that you can take to prevent boils from forming. Good hygiene and the regular use of antibacterial soaps can help to prevent bacteria from building up on the skin. This can reduce the chance for the hair follicles to become infected and prevent the formation of boils. In some situations, your health-care practitioner may recommend special cleansers to even further reduce the bacteria on the skin. When the hair follicles on the back of the arms or around the thighs are continually inflamed, regular use of an abrasive brush (loofah brush) in the shower can be used to help break up oil plugs and buildup around hair follicles.

**Boils At A Glance**
- A boil, or skin abscess, is a collection of pus that forms in the skin.
- Antibiotics alone can be inadequate in treating abscesses.
- The primary treatments for boils include hot packs and draining ("lancing") the abscess but only when it is soft and ready to drain.
- If you have a fever or long-term illness, such as cancer or diabetes, or are taking medications that suppress the immune system, you should contact your health-care practitioner if you develop a boil (abscess).

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**VEGETABLE PARASITIC INFECTIONS**

**Vegetable Parasite:** The universe harbors all forms of animal and vegetable life. Some benefit us while others await an opportunity to invade and live within the human structure. To the latter the term "parasite" has been applied. There are two varieties of parasites, those belonging to the vegetable kingdom and known as vegetable parasites, or fungi, and those of the animal kingdom, termed animal parasites.

**Ringworm**
Ringworm is the most frequent of the diseases of the skin caused by vegetable parasites. The hairy skin surfaces affected are the scalp and the bearded areas.

*Tinea* (tine e-ah) The definition of the word tinea is infection of the skin or nails caused by fungi and appearing as itching circular patches. Tinea is the medical term for ringworm. Ringworm is caused by vegetable parasites. All forms are contagious. Tinea is transmissible from one person to another. The disease is commonly passed by scales or hairs containing fungi. Shower baths, swimming pools and unsanitized articles are also sources of transmission.

*Ringworm* starts with a small-redened patch of little blisters. They spread outward and heal in the middle with scaling. Several such patches may be present. Any ringworm condition should be referred to a physician.

*Tinea capitis* (ringworm of the scalp) is a contagious, vegetable parasitic disease of the hairy scalp, characterized by red papules or spots at the opening of the hair follicles. The patches spread, the hair becomes brittle and lifeless and breaks off, leaving a stump, or falls from the enlarged open follicles.

*Tinea favosa* (fa-vo' sah), also called favus ( f a' vus ) or honeycomb ringworm, is an infectious growth due to a vegetable parasite. It is characterized by dry, sulphur yellowish cup-like crusts on the scalp, called scutula (skut' u-lah), which have a peculiar mousy odor.

**Ringworm of the Scalp**
Ringworm is a skin infection caused by a fungus that affects the scalp, skin, fingers, toenails, or feet. Anyone can get ringworm. Children are more susceptible to certain varieties, while adults may be more affected by others.

**Transmission of Ringworm**
Transmission of these fungal agents can occur by direct skin-to-skin contact with infected people or pets, or indirectly by contact with such items as barber clippers, hair from infected people, shower stalls or floors.
Symptoms of Ringworm
Ringworm of the scalp usually begins as a small pimple, which becomes larger in size, leaving scaly patches of temporary baldness. Infected hairs become brittle and break off easily. Occasionally, yellowish cup-like, crusty areas are seen. With ringworm of the nails, the affected nails become thicker, discolored, and brittle, or they will become chalky and disintegrate. Ringworm of the body appears as flat, spreading, ring-shaped areas. The edge is reddish and may be both dry and scaly, or moist and crusted. As it spreads, the center area clears and appears normal. Ringworm of the foot appears as a scaling or cracking of the skin, especially between the toes.

Treatment of Ringworm
The incubation period is unknown for most of these agents, however, ringworm of the scalp is usually seen 10 to 14 days after contact, and ringworm of the body is seen 4 to 10 days after initial contact. Your doctor may prescribe fungicidal tablets to swallow, or powders that can be applied directly to the affected areas.

Prevention of Ringworm
Towels, hats, and clothing of the infected individual should not be shared with others. Young children who are infected should minimize close contact with other children until they are effectively treated.

ANIMAL PARASITIC INFECTIONS

Pediculosis
Pediculosis is an infestation of the hairy parts of the body or clothing with the larvae, eggs, or adult lice. The crawling stages of this insect consume human blood, which causes excessive itching in areas of infestation. Head lice are usually located on the scalp, crab lice in the pubic area, and body lice along seams of clothing, traveling to the skin to feed. Anyone can become louse infested under appropriate conditions.

Transmission of Pediculosis
Pediculosis is easily transmitted from person to person through direct contact. Head lice infestations are commonly found in school settings or institutions. Crab lice infestations can be found among sexually active individuals. Body lice infestation generally can be found in people living in unsanitary conditions, and lacking hygiene where clothing is infrequently changed or laundered. For both head lice and body lice, transmission can occur during direct contact with an infested individual, or through sharing of clothing, combs or brushes. While other means are possible, crab lice are most often transmitted through sexual contact.

Symptoms of Infestation
Usually, the first evidence of an infestation is the itching or scratching in the area of the body where the lice feed. Scratching at the back of the head or around the ears should lead to an examination for head louse eggs (nits) on the hair. Itching around the genital area should lead to an examination for crab lice or their eggs. Scratching can be sufficiently intense to result in secondary bacterial infection in these areas. It may take as long as 2 to 3 weeks or longer for a person to notice the intense itching associated with this infestation. Pediculosis can be spread as long as lice or eggs remain alive on the infested person or clothing.

Treating Pediculosis
Medicated shampoos or cream rinses containing lindane or pyrethrin are used to kill lice. Products containing lindane are available only through a physician’s prescription. Lindane is a nerve poison, an organochlorine pesticide, an insecticide, and is suspected of being a carcinogen. In the U.S. the Environmental Protection Agency, (EPA) recently banned all agricultural uses of lindane. Lindane is not recommended for infants, young children, and pregnant or lactating women.

The Food and Drug Administration (FDA), requires products containing lindane be labeled with prominent warnings about possible neurotoxicity, particularly in young patients. Because the skin of children and the elderly is more permeable, their skin is more vulnerable to the toxic effects, of lindane. It is to be used with extreme caution if at all, in
anyone under 110 pounds. Patients who have conditions, such as HIV infection, or take certain medications that may lower the seizure threshold may be at greater risk for serious adverse events.

There are many safer and more effective treatments available. The pyrethrins are a pair of natural organic compounds that have potent insecticidal activity. Products containing pyrethrin are available over-the-counter. Pyrethrins are particularly harmful to aquatic life, but are far less toxic to mammals and birds than many synthetic insecticides. Although considered to be amongst the safest insecticides, pyrethrins are still known to irritate eyes, skin, and respiratory systems. Re-treatment after 7 to 10 days is recommended to assure that no eggs have survived. Nit combs are available to help remove nits from hair. Dose and duration of shampoo treatment should be followed according to label instructions.

**Prevention of Pediculosis**

Physical contact with infected individuals and their belongings, especially clothing, headgear, combs, and bedding, should be avoided. Health education on the life history of lice, proper treatment, and the importance of laundering clothing and bedding in hot water (140°F for 20 minutes), or dry cleaning to destroy lice and eggs, is extremely valuable. In addition, regular inspection of children, especially of children in schools, institutions, and summer camps, is crucial in detecting infestation.

The head louse is transmitted from one person to another by intimate contact with infested hats, combs, brushes or other personal articles. To kill head lice, advise patron to apply larkspur tincture or other medication to the entire head before retiring. The next morning, shampoo with germicidal soap. Repeat treatment as necessary. Never treat in the salon.

**SCABIES**

Scabies (the itch) is a highly contagious, animal parasitic skin disease, due to the itch mite. Vesicles and pustules may form from the irritation of the parasites or from scratching the affected areas.

Scabies is skin disease caused by a very small species of mite. It is spread by direct contact with infected people, and less often by sharing clothing or bedding. Scabies is found worldwide among people of all groups and ages. Scabies is contagious and can spread quickly through close physical contact in a childcare group, school class or nursing home. Sometimes whole families are affected. Because of the contagious nature of scabies, doctors often recommend treatment for entire families or contact groups to eliminate the mite from the infected person and the environment that they have had contact with. In a salon providing a personal service to an individual infected with scabies can be disastrous, easily affecting the entire staff and all the clients, requiring everyone to seek treatment. Clearing a building from scabies once they get lose is a highly labor intensive effort and great care must be taken to ensure complete eradication. Aside from the effort and expense involved to remedy the salon, the salon staff and the clients from infection, it doesn’t bode well for the reputation of the salon as a business.

Human scabies is caused by an infestation of the skin by the human itch mite (Sarcoptes scabiei var. hominis). The microscopic scabies mite burrows into the upper layer of the skin where it lives and lays its eggs. The most common symptoms of scabies are intense itching and a pimple-like skin rash. The scabies mite usually is spread by direct, prolonged, skin-to-skin contact with a person who has scabies.

Sarcoptes scabiei var. hominis, the human itch mite, is in the arthropod class Arachnida, subclass Acari, family Sarcoptidae. The mites burrow into the upper layer of the skin but never below the stratum corneum. The burrows appear as tiny raised serpentine lines that are grayish or skin-colored and can be a centimeter or more in length. Other races of scabies mites may cause infestations in other mammals, such as domestic cats, dogs, pigs, and horses. It should be noted that races of mites found on other animals might cause a self-limited infestation in humans with temporary itching due to dermatitis; however they do not multiply on the human host.

The burrows or tracks typically appear in folds of your skin. Though almost any part of your body may be involved, in adults scabies is most often found:

- Between fingers
- In armpits
COURSE UNIT 1 - DISEASE AND DISORDERS OF THE SKIN

• Around your waist
• Along the insides of wrists
• On your inner elbow
• On the soles of your feet
• Around breasts
• Around the male genital area
• On buttocks
• On knees
• On shoulder blades

In children, common sites of infestation include the:
• Scalp
• Face
• Neck
• Palms of the hands
• Soles of the feet

Causes, Incidence, and Risk Factors
Sometimes whole families are affected. Outbreaks of scabies are more common in nursing homes, nursing facilities, and childcare centers but can occur anywhere that an infected person goes undetected.

The mites that cause scabies burrow into the skin and deposit their eggs, forming a burrow that looks like a pencil mark. Eggs mature in 21 days. The itchy rash is an allergic response to the mite.

Scabies is spread by skin-to-skin contact with another person who has scabies.

Symptoms
• Itching, especially at night
• Rashes, especially between the fingers
• Sores (abrasions) on the skin from scratching and digging
• Thin, pencil-mark lines on the skin

Mites may be more widespread on a baby's skin, causing pimples over the trunk, or small blisters over the palms and soles.
• In young children, the head, neck, shoulders, palms, and soles are involved.
• In older children and adults, the hands, wrists, genitals, and abdomen are involved.

Signs and tests
Examination of the skin shows signs of scabies. Tests include an examination under the microscope of skin scrapings taken from a burrow to look for the mites. A skin biopsy can also be done.

Treatment
You should never attempt to treat any client and always recommend to your clients that show signs of any skin or scalp disorder that they visit a doctor of medical advice. The type of treatments used for scabies is generally topical applications.

Prescription medicated creams are commonly used to treat scabies infections. The most commonly used cream is permethrin 5%. Other creams include benzyl benzoate, sulfur in petrolatum, and crotamiton. Lindane is rarely used because of its side effects.

Creams are applied all over the body. The whole family or sexual partners of infected people should be treated, even if they do not have symptoms. Creams are applied as a one-time treatment or they may be repeated in 1 week.

Any clothing or bedding that has come into contact with an infected person must be handled properly. Underwear, towels, and sleepwear must be washed in hot water, with a detergent soap product. Vacuum the carpets and upholstered furniture thoroughly and empty the vacuum canister or bag into a plastic bag and tie it off then
immediately remove it into an outside receptacle.

For difficult cases, some health care providers may also prescribe medication taken by mouth to kill the scabies mites. Ivermectin is a pill that may be used.

Itching may continue for 2 weeks or more after treatment begins. The treatment plan given by the health care provider must be followed exactly for the full period of time prescribed. Itching and other symptoms will disappear if treatment is appropriately. You can reduce itching with cool soaks and calamine lotion. Your doctor may also recommend an oral antihistamine.

**Expectations (prognosis)**

Most cases of scabies can be cured without any long-term problems. A severe case with a lot of scaling or crusting may be a sign that the person has a disease such as HIV.

**Complications**

Intense scratching can cause a secondary skin infection, such as impetigo.

Call your health care provider if:
- You have symptoms of scabies
- A person you have been in close contact with has been diagnosed with scabies

**Prevention**

Avoid contact with infected persons. You should never provide service to anyone infected with scabies. Never permint any tools or implements to be used on someone with scabies. Always follow cleaning, sanitizing, and sterilizing procedures when required, between every client to ensure that no infectious material is spread from one client to another.

**When to see a doctor**

Talk to your doctor if you have signs and symptoms that may indicate scabies.

Many skin conditions, such as dermatitis or eczema, are associated with itching and small bumps on the skin. Your doctor can help determine the exact cause and ensure you receive proper treatment. Bathing and over-the-counter preparations won't eliminate scabies.

*Sarcoptes scabiei* undergoes four stages in its life cycle:

1. **Egg:** Females deposit 2-3 eggs per day as they burrow under the skin. Eggs are oval and 0.10 to 0.15 mm in length and hatch in 3 to 4 days.

2. **Larva:** After the eggs hatch, the larvae migrate to the skin surface and burrow into the intact stratum corneum to construct almost invisible, short burrows called molting pouches. The larval stage, which emerges from the eggs, has only 3 pairs of legs and lasts about 3 to 4 days.

3. **Nymph:** After the larvae molt, the resulting nymphs have 4 pairs of legs. This form molts into slightly larger nymphs before molting into adults. Larvae and nymphs may often be found in molting pouches or in hair follicles and look similar to adults, only smaller.

4. **Adults:** Adults are round, sac-like eyeless mites. Females are 0.30 to 0.45 mm long and 0.25 to 0.35 mm wide, and males are slightly more than half that size. Mating occurs after the active male penetrates the molting pouch of the adult female.

Mating takes place only once and leaves the female fertile for the rest of her life. Impregnated females leave their molting pouches and wander on the surface of the skin until they find a suitable site for a permanent burrow. While on the skin’s surface, mites hold onto the skin using sucker-like pulvilli attached to the two most anterior pairs of legs.
When the impregnated female mite finds a suitable location, it begins to make its characteristic serpentine burrow, laying eggs in the process.

After the impregnated female burrows into the skin, she remains there and continues to lengthen her burrow and lay eggs for the rest of her life (1-2 months). Under the most favorable of conditions, about 10% of her eggs eventually give rise to adult mites. Males are rarely seen; they make temporary shallow pits in the skin to feed until they locate a female’s burrow and mate.

Transmission occurs primarily by the transfer of the impregnated females during person-to-person, skin-to-skin contact. Occasionally transmission may occur via bedding or clothing. Human scabies mites often are found between the fingers and on the wrists.
UNIT 1
DISORDERS OF THE SKIN
SECTION REVIEW

1. It is unlawful to provide a wrapping service to a person having a visible disease, pediculosis, or open sores.
   TRUE   FALSE

2. The integumentary system consists of the skin, which is made up of the epidermis, dermis, and the hypodermis, and its appendages
   TRUE   FALSE

4. One of the appendages of the integumentary system is the hair.
   TRUE   FALSE

5. It’s important to check your client’s skin for disorders or diseases before you begin any service.
   TRUE   FALSE

6. The skin serves as a protective shield against heat, light, injury, and infection.
   TRUE   FALSE

7. TEWL as it is related to water loss, is an acronym that stands for “trans epidermal water logged”.
   TRUE   FALSE

8. A parasitic disease is one that is caused by vegetable or animal parasites, such as pediculosis, or ringworm.
   TRUE   FALSE

9. A client that come to you for a wrapping service must be turned away if they have an excessive number of skin tags.
   TRUE   FALSE

10. As a Florida registered body wrapper, if you get sick with something that you could spread to others, you cannot continue to offer clients wrapping services until you are well.
    TRUE   FALSE
UNIT 2

HIV/AIDS and Communicable Diseases
(Three Credit Hours)

Unit Learning Objectives
The purpose of this unit and the outcome expected is for participants to develop:
- An understanding of current trends of the AIDS Epidemic per latest 2011 Global Report
- Knowledge of the Modes of HIV Transmission
- An increased understanding of the HIV virus and AIDS and related issues
- Recognize the four broad stages of AIDS
- Familiarity with current clinical management, testing and treatment of persons with HIV/AIDS
- Awareness about ground breaking clinical trials in the prevention of HIV/AIDS.
- An up to date perception of the attitudes people have towards HIV/AIDS and its effect on the epidemic
- The ability to choose appropriate behavior in dealing with persons living with HIV/AIDS
- The ability to recognize symptoms of the most recognized Sexually Transmitted Diseases (STD)
- Knowledge of the methods of treatment for most prevalent STD’s
- An awareness of the dangers associated with communicable diseases
- An understanding of principles of infection control and how it applies to body wrapping
- The practical skills needed to apply various infection prevention and control procedures

INTRODUCTION
The purpose of this unit is to provide the participant with knowledge about HIV/AIDS and other communicable diseases. Although there are concerns about many diseases, specific attention is being given to HIV infection and AIDS because of the varied and complicated issues they bring to our workplace and the community. Effective HIV and AIDS education can help prevent new infections by providing people with information about HIV and how it is passed on, and in doing so equipping individuals with the knowledge to protect themselves from becoming infected with the virus as well in the beauty industry to protect the spread from client to client. If you have been wondering what is going on with HIV/AIDS now days this unit is going to answer that question. There was a time in the past when HIV was the main subject of every evening news channel for years. Now you rarely hear anything on the news, you’d almost think HIV/AIDS just disappeared. Unfortunately nothing could be further from the truth. It is still a looming threat to anyone that is sexually active.

This unit takes a look at what HIV is, its origin, where it’s been and new trends that are emerging according to the latest available 2011 Global Report and other recent scientific data. Included in the unit training material is a review of why and how HIV infection ultimately results in AIDS, the modes of transmission, and how to prevent its spread. This unit also explores the various types of testing available for the virus and where the tests can be obtained. Other important information examined in this unit is methods of medical treatments commonly prescribed including the patient’s clinical management.

The ever-present issue of AIDS discrimination still acts to contribute to this dreaded disease. As a result, a special focus is given in this unit on the stigma of HIV/AIDS and how this has played a major role in the spread, which still as recent as 2011, has been found to obstruct the management of HIV/AIDS worldwide. Unit content includes some rather surprising changes in trends among nations and the causes of these changing trends. The negative issues that result from the stigma of HIV/AIDS are not just global, they also affects people on a personal level. For this reason laws have been passed to protect persons who are HIV positive, this unit looks at the rights and protections afforded by law and makes suggestions on work place programs that can be initated in the salon to protect the rights of those who may be infected and as such, reduce liability to salon professionals who otherwise may not be aware of how to appropriately deal with persons with the virus or syndrome. Due to the nature of HIV/AIDS co-infection with other diseases, particularly STD’s and STI’s have become problematic. Why this happens and how to prevent it is explored within the pages of this unit with an emphasis on new strands of TB.
Aside from sexually transmitted diseases and disorders there are disorders and other diseases causing bacteria that should always be a constant concern to salon professionals. This unit covers various other disorders and diseases that can affect the salon environment, as a salon professional it is important that you recognize them, and know the appropriate course of action when confronted with a situation involving them. In summation this unit features proper infection control practices to reduce and eliminate the spread of infection through the implementation of Universal/Standard controls and proper cleaning, disinfecting, sanitization and hand washing methods prescribed by the Florida Board of Cosmetology under the authority given by law.

Something’s have remained consistent regarding HIV/AIDS such as the modes of transmission, and the precautions that control the spread of HIV. Unfortunately the stigma attached to persons who have or may be infected with HIV or who are living with AIDS too is still prevalent. On the up side, HIV prevention works—new HIV infections are declining in many countries most affected by the epidemic In 33 countries, HIV incidence has fallen by more than 25% between 2001 and 2009. The epidemic continues to affect all groups; however, of the 40,000 Americans who will become infected with HIV this year, current research has indicated half will be under the age of 25. Infections among women and adolescents are increasing the fastest of all population groups. While men who have sex with men still remain the largest group in the US infected with the HIV virus, with a resent increase in this group in the 2011 report data. AIDS affects our children, our co-workers, our employees and our customers. Educating everyone about how to protect themselves and their loved ones is the only way that we can stop the spread of this needless threat to the public health and the world economy.

More than 5 million people are now receiving HIV treatment. In 2009 alone, 1.2 million people received HIV antiretroviral therapy for the first time—an increase in the number of people receiving treatment of 30% in a single year. Overall, the number of people receiving therapy has grown 13-fold, more than five million people in low- and middle-income countries, since 2004. From the beginning of the epidemic in the early 80’s deaths from AIDS gradually declined in the United States with the lowest approximation of deaths being around 2001.

However the most recent data available gathered by the World Health Organization does show that the estimated number of adults and children that have died due to HIV/AIDS in a specific year been gradually increasing since the 2001 low. Treatment programs in the United States now have waiting lists, with Florida’s the highest. There are 10 million people living with HIV who are eligible for treatment under the new WHO guidelines that are still in need of treatment. Although there has been progress in many countries its notable that several regions and countries do not fit the overall trend. In seven countries, five of them in Eastern Europe and Central Asia, HIV incidence increased by more than 25% between 2001 and 2009. Evidence indicates that the number of new HIV infections among men who have sex with men has increased in the past decade, while rates of new infections among injecting drug users have fallen.

These figures demonstrate that positive behavior change can alter the course of the epidemic—while stigma and discrimination, lack of access to services and bad laws can make epidemics worse. In both cases, the effects are often profound.

**AIDS Diagnoses by Top 10 States/Dependent Areas**
The 10 states or dependent areas reporting the highest over all number of AIDS:

<table>
<thead>
<tr>
<th>State/Dependent Area</th>
<th># of Cumulative AIDS Diagnoses Through 2009*</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adults or Adolescents</td>
<td>Children (&lt;13)</td>
</tr>
<tr>
<td>New York</td>
<td>199,433</td>
<td>2,438</td>
</tr>
<tr>
<td>California</td>
<td>160,998</td>
<td>696</td>
</tr>
<tr>
<td>Florida</td>
<td>120,701</td>
<td>1,577</td>
</tr>
<tr>
<td>Texas</td>
<td>79,568</td>
<td>399</td>
</tr>
<tr>
<td>New Jersey</td>
<td>54,483</td>
<td>809</td>
</tr>
<tr>
<td>Georgia</td>
<td>39,207</td>
<td>253</td>
</tr>
<tr>
<td>Illinois</td>
<td>38,886</td>
<td>289</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>38,282</td>
<td>375</td>
</tr>
<tr>
<td>Maryland</td>
<td>35,981</td>
<td>332</td>
</tr>
<tr>
<td>Puerto Rico</td>
<td>32,867</td>
<td>410</td>
</tr>
</tbody>
</table>

* From the beginning of the epidemic through 2009
Of the **estimated number** of AIDS diagnoses in the 50 states and the District of Columbia, the distribution of ages at time of diagnosis was as follows:

<table>
<thead>
<tr>
<th>Age (Years)</th>
<th>Estimated # of AIDS Diagnoses, 2009</th>
<th>Cumulative Estimated # of AIDS Diagnoses, through 2009*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 13</td>
<td>13</td>
<td>9,448</td>
</tr>
<tr>
<td>Ages 13-14</td>
<td>58</td>
<td>1,321</td>
</tr>
<tr>
<td>Ages 15-19</td>
<td>484</td>
<td>7,214</td>
</tr>
<tr>
<td>Ages 20-24</td>
<td>2,095</td>
<td>42,920</td>
</tr>
<tr>
<td>Ages 25-29</td>
<td>3,476</td>
<td>129,639</td>
</tr>
<tr>
<td>Ages 30-34</td>
<td>4,043</td>
<td>214,149</td>
</tr>
<tr>
<td>Ages 35-39</td>
<td>4,893</td>
<td>234,575</td>
</tr>
<tr>
<td>Ages 40-44</td>
<td>5,689</td>
<td>193,237</td>
</tr>
<tr>
<td>Ages 45-49</td>
<td>5,466</td>
<td>126,380</td>
</tr>
<tr>
<td>Ages 50-54</td>
<td>3,983</td>
<td>72,327</td>
</tr>
<tr>
<td>Ages 55-59</td>
<td>2,191</td>
<td>39,025</td>
</tr>
<tr>
<td>Ages 60-64</td>
<td>1,010</td>
<td>20,633</td>
</tr>
<tr>
<td>Ages 65 or older</td>
<td>846</td>
<td>17,743</td>
</tr>
</tbody>
</table>

* From the beginning of the epidemic through 2009

**Bloodborne Pathogens**

Bloodborne Pathogens means pathogenic microorganisms such as viruses or bacteria that are present in human blood and can cause disease in humans. There are many different bloodborne pathogens. These pathogens include, but are not limited to, malaria, syphilis, Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), and the Human Immunodeficiency Virus (HIV).

**A Virus Called HIV Causes AIDS**

HIV stands for human immunodeficiency virus. The term AIDS applies to the most advanced stages of HIV infection. It has been identified as the virus that causes AIDS (acquired immunodeficiency syndrome). Evidence indicates that AIDS is caused by the human immunodeficiency virus (HIV), which was discovered in 1983. HIV is spread from one person to another through sharing of needles, unprotected sexual contact, blood and body fluids. HIV infection could be described as having 3 stages: acute/early, middle and advanced (AIDS). The HIV virus attacks a person's immune system and, over time, destroys it. By the time an individual begins to experience diseases and infections as the consequence of the destructive process of HIV, his/her T-cell count is commonly below 200 per milliliter. An individual develops AIDS when his/her immune system can no longer successfully fight off disease and infection, and if not attended to, the person will die from complications. HIV does not discriminate and anybody can acquire the virus. People infected with HIV may seem and feel healthy for an extended period. Not uncommonly, it can take up to 10 years for a person infected with HIV to develop AIDS. Thus, infected people may spend a decade not knowing that they are infected, yet are all the while infecting others. Symptoms of infection differ from one person to another. Some people get fevers and diarrhea others get swollen glands. Commonly, people infected lose weight for no apparent reason while the virus cripples the body's defenses. At the time people develop AIDS, they might have illnesses that people not infected would usually resist. It is necessary to take a blood test in order to determine if an individual is infected with HIV.

However, the paradox is, most of the patients do not go for any test because they simply cannot perceive any symptoms of the disease, as this stage is apparently harmless.

**Stages of HIV**

AIDS can be classified into four broad stages. All these stages, determine the degree to which the T-cells and the central nervous system have been hampered. The T-cells play the biggest role in combating any disease. The more the T-cells get degenerated, the weaker our immune system becomes. This process of paralysis of the immunity system is a very gradual and slow process, taking about seven to ten years to reach the final stage.
COURSE UNIT 2 - HIV/AIDS AND OTHER COMMUNICABLE DISEASES

First Stage
This stage is called the primary stage or the period of seroconversion, as the HIV residing in the peripheral blood, starts generating cytotoxic lymphocytes and HIV antibodies. If an HIV test is conducted before the start of the seroconversion period, then the person may be diagnosed as negative due to the absence of HIV antibodies. Instead, the ailment is often misdiagnosed as flu or other viral fever. Unfortunately, this holds true for 20% of the patients. The doctors fail to diagnose them properly, because the HIV test is conducted before the antibodies get generated in the seroconversion period.

The first stage is marked with slight flu-like illness within a month or two after exposure to the virus. Lasting for just a few weeks, this stage of HIV often goes completely unnoticed. This illness may include:

- Fever
- Headache
- Tiredness
  - Body aches
- Sore throat

Early Symptoms of the HIV Virus
Enlarged lymph nodes (glands of the immune system easily felt in the neck and groin); these symptoms usually disappear within a week to a month and are often mistaken for those of another viral infection. During this period, people are very infectious, and HIV is present in large quantities in genital fluids.

Second Stage
This stage, known as the asymptomatic stage is the second of all the stages of HIV. As inferred by the name, this stage is lacks any apparent symptom, and is literally the chronic stage of HIV. However, technically, a very active process goes on in the lymph nodes. The viral load test is conducted at this stage of HIV, to find the amount of the virus that has escaped in from the lymph nodes.

Nevertheless, a few seemingly unimportant, ordinary and curable disorders and illness may occur in some cases:

- Slight weight loss
- Infections in the respiratory track
- Fungal infections in the nails
- Frequent oral ulcer

This period of "asymptomatic" infection varies greatly in each individual. Some people may begin to have symptoms within a few months, while others may be symptom-free for more than 10 years.

Even during the asymptomatic period, the virus is actively multiplying, infecting, and killing cells of the immune system. The virus can also hide within infected cells and lay dormant. The most obvious effect of HIV infection is a decline in the number of CD4 positive T (CD4+) cells found in the blood—the immune system's key infection fighters. The virus slowly disables or destroys these cells without causing symptoms. As the immune system worsens, a variety of complications start to take over. For many people, the first signs of infection are large lymph nodes or "swollen glands" that may be enlarged for more than 3 months.

The CDC Defines AIDS As:
The Centers of Disease Control and Prevention (CDC) are responsible for tracking the spread of AIDS in the United States. The CDC defines a person with AIDS as someone with:

- A positive HIV antibody or antigen test,
- A T-cell (CDR) count of fewer than 200 CD4+ T cells per cubic millimeter of blood. (Healthy adults usually have CD4+ T-cell counts of 1,000 or more.) and,
- A diagnosis of one or more opportunistic diseases or conditions associated with AIDS.

In addition, the definition includes 26 clinical conditions that affect people with advanced HIV disease, known as OI’s or opportunistic infections.
Third Stage
The second stage, in its own dormant way, badly damages the immune system, to transit into the third stage. The minor diseases, which a healthy immune system can easily fight, become irresistible in the third stage of HIV. Therefore, the body suffers from several infections in different parts of the body at the same time. At this stage of HIV,
- The Lymph nodes completely degenerate.
- The virus becomes stronger and intensifies its rate of T-cells destruction.
- The body loses its ability to regenerate the lost T-cells, at a fast pace.

This stage witnesses disease like meningitis, swelled glands and general malaise. Some people develop frequent and severe herpes infections that cause mouth, genital, or anal sores, or a painful nerve disease called shingles. Children may grow slowly or be sick a lot.

Other symptoms often experienced months to years before the onset of AIDS include:
- Lack of energy
- Weight loss
- Frequent fevers and sweats
- Persistent or frequent yeast infections (oral or vaginal)
- Persistent skin rashes or flaky skin
- Pelvic inflammatory disease in women that does not respond to treatment
- Short-term memory loss

Fourth Stage
The fourth stage is marked by more frequent occurrences of minor infections, subsequently leading to the deadliest phase of the stages of HIV, called AIDS. At this stage, the CD4 count drops down to less than 200, and the person loses the capability to fight any opportunistic disease. This stage is often too late for any further treatment. The generation of HIV antibodies becomes too fast for the body to combat it. The patient suffers from diseases like Kaposi Sarcoma and Pneumocystis Pneumonia.

Cancers
Health care providers use radiation, chemotherapy, or injections of alpha interferon—a genetically engineered protein that occurs naturally in the human body—to treat Kaposi’s Sarcoma or other cancers associated with HIV infection.

The final of the stages of HIV is incurable and deadly. Therefore, it is always better to diagnose the possibility of HIV within the first three stages. Proper medication and therapy, can somehow delay the arrival of the stage of AIDS.

Most of the opportunistic HIV infections can be treated with the help of strong retroviral drugs. Prophylaxis can prevent them from spawning further. These drugs simply help in retaining the CD4 count to above 300, so that the immune system remains strong enough to fight the opportunistic infections. However, it becomes fatal as the person moves towards the final stage of the infection, i.e. AIDS wherein no amount of effort to upgrade the CD4 count can meet the purpose of fighting these germs.

Most opportunistic infections generally do not affect healthy people. In people with AIDS, these infections are often severe and sometimes fatal because the immune system is so ravaged by HIV that the body cannot fight off certain bacteria, viruses, fungi, parasites, and other microbes.

Opportunistic Infections (OI’s)
HIV doesn’t kill anybody directly. Instead, it weakens the body’s ability to fight disease. Infections, which are rarely seen in those with normal immune systems, are deadly to those with HIV. In the United States, opportunistic infections continue to produce morbidity and mortality among the estimated 650,000-900,000 persons who are infected with HIV, especially among the estimated 200,000-250,000 persons who are severely immunosuppressed. People with HIV can get many infections (called opportunistic infections, or OIs), sometimes referred to as opportunistic diseases.
Types of OI's include:
- Bacterial and Mycobacterial
- Fungal Infections
- Malignancies
- Protozoal Infections
- Viral Infections
- Neurological Conditions

Symptoms of Opportunistic Infections
Common symptoms in people with AIDS include:
- Coughing and shortness of breath
- Seizures and lack of coordination
- Difficult or painful swallowing
- Mental symptoms such as confusion and forgetfulness
- Severe and persistent diarrhea
- Fever
- Vision loss
- Nausea, abdominal cramps, and vomiting
- Weight loss and extreme fatigue
- Severe headaches
- Coma

Children with AIDS may get the same opportunistic infections, as do adults with the disease. In addition, they also have severe forms of the typically common childhood bacterial infections, such as conjunctivitis (pink eye), ear infections, and tonsillitis.

<table>
<thead>
<tr>
<th>INFORMATION SOURCE</th>
<th>FLORIDA HIV/AIDS STATISTIC</th>
</tr>
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<tbody>
<tr>
<td>(Source: Centers for Disease Control, 2007)</td>
<td>Throughout the AIDS epidemic, Florida has consistently ranked third in the nation in the number of reported cases and second in the number of pediatric cases.</td>
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<tr>
<td>(Source: Centers for Disease Control, 2007)</td>
<td>The HIV/AIDS epidemic in Florida has disproportionately impacted minorities. An important issue common to all minorities is access to health care, including HIV diagnostic and treatment services.</td>
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<tr>
<td>(Source: Florida Department of Health, 2010)</td>
<td>The Florida Department of Health estimates that 45,729 Floridians are living with HIV. Males account for 68% and women account for 32% of cumulative reported HIV infections.</td>
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<tr>
<td>(Source: Florida Department of Health, 2010)</td>
<td>Of the over 45,000 cumulative HIV cases in Florida, 48% are among African Americans, 30% are among Caucasians, and 20% are among Hispanics.</td>
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<tr>
<td>(Source: Broward County Health Department, 2009)</td>
<td>HIV/AIDS is the leading cause of death in Florida for both black males and black females age 25-44.</td>
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Modes of HIV Transmission
For more than 25 years, scientists have made new discoveries about HIV infection and AIDS. But one piece of information has never changed – how the disease spreads. Scientists have confirmed and reconfirmed this for more than 25 years. The basic facts about HIV transmission and prevention are sound. They can be trusted. These are some of the common ways, in which HIV is spread. The most effective method of HIV transmission is blood to blood, however, a sufficient amount of HIV blood must gain entry into the bloodstream to cause infection. Records have shown that contact between infected blood and intact skin (i.e. no breaks in the skin, lesions, or open sores) cannot transfer the virus from one person to another. Conversely, having vaginal, anal, or oral sex without a latex condom, or sharing needles or syringes will. It should also be known that AIDS can be transmitted from an infected mother to her baby during pregnancy, childbirth, and, although rarely, also through breast-feeding.
**Risky Behavior**
HIV can infect anyone who practices risky behaviors such as:
- Sharing drug needles or syringes
- Having sexual contact, including oral, with an infected person without using a condom
- Having sexual contact with someone whose HIV status is unknown

**Infected Blood**
HIV also is spread through contact with infected blood. Before donated blood was screened for evidence of HIV infection and before heat-treating techniques to destroy HIV in blood products were introduced, HIV was transmitted through transfusions of contaminated blood or blood components. Today, because of blood screening and heat treatment, the risk of getting HIV from such transfusions is extremely small.

**Contaminated Needles**
HIV is frequently spread among injection drug users by the sharing of needles or syringes contaminated with very small quantities of blood from someone infected with the virus. It is rare, however, for a patient to give HIV to a health care worker or vice-versa by accidental sticks with contaminated needles or other medical instruments.

**Mother to Child**
Women can transmit HIV to their babies during pregnancy or birth. Approximately one-quarter to one-third of all untreated pregnant women infected with HIV will pass the infection to their babies. HIV also can be spread to babies through the breast milk of mothers infected with the virus. If the mother takes certain drugs during pregnancy, she can significantly reduce the chances that her baby will get infected with HIV. If health care providers treat HIV-infected pregnant women and deliver their babies by cesarean section, the chances of the baby being infected can be reduced to a rate of 1 percent. HIV infection of newborns has been almost eradicated in the United States due to appropriate treatment.

A study sponsored by the National Institute of Allergy and Infectious Diseases (NIAID) in Uganda found a highly effective and safe drug for preventing transmission of HIV from an infected mother to her newborn. Independent studies have also confirmed this finding. This regimen is more affordable and practical than any other examined to date. Results from the study show that a single oral dose of the antiretroviral drug nevirapine (NVP) given to an HIV-infected woman in labor and another to her baby within 3 days of birth reduces the transmission rate of HIV by half compared with a similar short course of AZT (Azidothymidine). For more information on preventing transmission from mother to child, you should visit their Web site at http://aidsinfo.nih.gov/guidelines.

**Sexually Transmitted Infections**
If you have a sexually transmitted infection (STI) such as syphilis, genital herpes, chlamydial infection, gonorrhea, or bacterial vaginosis appears, you may be more susceptible to getting HIV infection during sex with infected partners.

**Saliva**
Although researchers have found HIV in the saliva of infected people, there is no evidence that the virus is spread by contact with saliva. Laboratory studies reveal that saliva has natural properties that limit the power of HIV to infect, and the amount of virus in saliva appears to be very low. Research studies of people infected with HIV have found no evidence that the virus is spread to others through saliva by kissing. HIV, however, can infect the lining of the mouth, and instances of HIV transmission through oral intercourse have been reported. Scientists have found no evidence that HIV is spread through sweat, tears, urine, or feces.

**Casual Contact**
Studies of families of HIV-infected people have shown clearly that HIV is not spread through casual contact such as the sharing of food utensils, towels and bedding, swimming pools, telephones, or toilet seats. HIV is not spread by biting insects such as mosquitos or bedbugs.
Prevention and Safe Practices

HIV is a very dangerous disease, that you may have less of a chance of contracting if you follow some basic guidelines for prevention. The following facts about HIV and AIDS will educate you on how to protect yourself. If you are sexually active and want to avoid HIV, you must have sex only with a partner who does not use intravenous drugs, does not share needles or syringes, is not infected, and is monogamous.

Are you asking if this is even possible? Remember that these things are impossible to know for sure about someone unless they never leave your side. There is never a 100% guarantee that a partner will not participate in risky behavior unbeknownst to you. You can safeguard yourself from the virus. Some of the primary methods are:

- Do not use drugs or alcohol. They keep you from making wise decisions and thinking clearly.
- Do not have sex. You can get infected from one sexual experience.
- Never share any kind of needle or syringe.
- If you do have sex, learn and use safe sex practices.
- Realize that birth control pills and diaphragms will not protect you from HIV or other STD’s.

Syringe Services Programs (SSPs)

The term SSP is inclusive of syringe access, disposal, and needle exchange programs, as well as referral and linkage to HIV prevention services, substance abuse treatment, and medical and mental health care. These are programs developed by Department of Health and Human Services (HHS) funded by the Federal government. These programs battle back and forth for funding of federal tax dollars. The were banned for a period but in December 2009, the President signed the Consolidated Appropriations Act, 2010, which modified the ban on use of Federal funds for needle exchange programs (also known as syringe exchange programs [SEPs]) for many HHS programs. However, authorizations for some HHS programs may still contain partial or complete bans on the use of funds for needle exchange programs, and grantees should contact their relevant program office for additional information. The modified provision prohibits the use of funds for SEPs in any location that local public health or law enforcement agencies determine to be in appropriate. Accentually the local law enforcement agencies now play a roll in these programs, which can limit intravenous drug user’s [IDU’s] participation.

Effectiveness of Condoms

Condoms are classified as medical devices and are regulated by the Food and Drug Administration (FDA). There are many different types and brands of condoms available—however, only latex or polyurethane condoms provide a highly effective mechanical barrier to HIV. In laboratories, viruses occasionally have been shown to pass through natural membrane ("skin" or lambskin) condoms, which may contain natural pores and are therefore not recommended for disease prevention (they are documented to be effective for contraception). Condom manufacturers in the United States test each latex condom for defects, including holes, before it is packaged. The proper and consistent use of latex or polyurethane (a type of plastic) condoms when engaging in sexual intercourse—vaginal, anal, or oral—can greatly reduce a person’s risk of acquiring or transmitting sexually transmitted diseases, including HIV infection. For condoms to provide maximum protection, they must be put on prior to genital contact, they must be used consistently (every time) and correctly, from beginning to end, each time you have vaginal, anal, or oral sex.

There is no approved vaccine for HIV or a cure for AIDS. However, there are several medications that are now available to help treat the symptoms of AIDS and permit patients to live more comfortably. None of these medications can exclude a person from becoming infected with HIV, nor can they cure AIDS. On the other hand, people can take an active role in the prevention of HIV infection by understanding the facts and following the guidelines.

Diagnosis Through Blood Tests

The only way a person can know if he or she has been infected with HIV is to be tested. Specific blood tests are required to look for, and to verify the presence of HIV antibodies in the blood. In nearly all cases, the body develops antibodies to combat the virus that enters the blood stream. If it is possible that you may be infected with HIV, you should consider taking an antibody blood test and get counseling both before and after being tested.
Accepted blood tests are over 99% accurate. Still, there is usually a window period of a few weeks to a few months subsequent to a person becoming infected before enough antibodies develop to be detected. Get in touch with your local public health department, Red Cross chapter, AIDS service organization, or doctor's office for more information about testing and HIV counseling.

**How HIV Tests Work**
When HIV enters the body, it begins to attack certain white blood cells called T4 lymphocyte cells (helper cells). Your doctor may also call them CD4 cells. The immune system then produces antibodies to fight off the infection. Although these antibodies are ineffective in destroying HIV, their presence is used to confirm HIV infection. Therefore, the presence of antibodies to HIV results from HIV infection. HIV tests look for the presence of HIV antibodies; they do not test for the virus itself.

**Test Models for HIV**
HIV testing consists of an initial screening with two types of tests commonly used to detect HIV infection. The most commonly used initial test is an enzyme immunosorbant assay (EIA) or the enzyme-linked immunosorbant assay (ELISA). If EIA test results show a reaction, the test is repeated on the same blood sample. The ELISA and EIA tests take the time of one or two weeks to be completed. Moreover, these tests check for the existence of antibodies to HIV. They do not check for virus itself.

If the sample is repeatedly the same result or either duplicate test is reactive, the results are "confirmed" using a second test such as the Western blot. This more specific (and more expensive) test can tell the difference between HIV antibodies and other antibodies that can react to the EIA and cause false positive results. False positive EIA results are uncommon, but can occur. A person is considered infected following a repeatedly reactive result from the EIA, confirmed by the Western blot test.

In addition to the EIA or ELISA and Western blot, **Other tests now available include:**

- Radioimmunoprecipitation assay (RIPA): A confirmatory blood test that may be used when antibody levels are very low or difficult to detect, or when Western blot test results are uncertain. An expensive test, the RIPA requires time and expertise to perform.
- Dot-blot immunobinding assay: A rapid-screening blood test that is cost-effective and that may become an alternative to standard EIA and Western blot testing.
- Immunoflourescence assay: A less commonly used confirmatory blood test used on reactive ELISA samples or when Western blot test results are uncertain.
- Nucleic acid testing (e.g., viral RNA or proviral DNA amplification method): A less available blood test that can be used to resolve an initial indeterminate Western blot result in certain situations.
- Polymerase chain reaction (PCR): A specialized blood test that looks for HIV genetic information. Although expensive and labor-intensive, the test can detect the virus even in someone only recently infected.

**Alternatives Tests: Urine and Oral-fluid HIV Tests**
Urine and oral-fluid HIV tests offer alternatives for anyone reluctant to have blood drawn. Urine testing for HIV antibodies is not as sensitive or specific as blood testing.

Available urine tests include an EIA and a Western blot test that can confirm EIA results. A physician must order these tests, and the results are reported to the ordering physician or his or her assistant.

**Rapid HIV Tests**
A rapid HIV test is a test that usually produces results in up to 20 minutes. In comparison, results from the commonly used HIV-antibody screening test, the EIA, are not available for 1-2 weeks. There are currently four rapid HIV tests licensed for use in the United States:

- OraQuick Rapid HIV-1 and Advance HIV ½ Antibody Tests, manufactured by OraSure Technologies, Inc.
- Multispot, manufactured by Bio-Rad Laboratories
- Uni-Gold Recombigen, manufactured by Trinity Biotech
The availability of these tests may differ from one place to another. These rapid HIV blood tests are considered to be just as accurate as the EIA. As is true for all screening tests (including the EIA), a positive test result must be confirmed with an additional specific test before a diagnosis of infection can be given.

Detecting Infection
The HIV-antibody test is the only way to tell if you are infected. You cannot tell by looking at someone if he or she carries HIV. Someone can look and feel perfectly healthy and still be infected. In fact, an estimated one-third of those who are HIV positive do not know it. Neither do their sex partners.

When HIV enters the bloodstream, it begins to attack certain white blood cells called T4 lymphocyte cells (helper cells). The immune system then produces antibodies to fight off the infection. Therefore, the presence of antibodies to HIV result from HIV infection. Testing can tell you whether or not you have developed antibodies to HIV.

Exposure to HIV
To find out when you should be tested, discuss it with your testing site staff or personal physician. The tests commonly used to detect HIV infection actually look for antibodies produced by your body to fight HIV. Most people will develop detectable antibodies within 3 months after infection, the average being 20 days. In rare cases, it can take 6-12 months. During the time between exposure and the test, it is important to avoid any behavior that might result in exposure to blood, semen, or vaginal secretions.

HIV Infection Testing Locations
Many places offer HIV testing including local health departments, private doctors' offices, hospitals, and sites specifically set up to provide HIV testing. It is important to get tested at a place that also provides counseling about HIV and AIDS. Counselors can answer any questions you might have about risky behavior and ways you can protect yourself and others in the future. In addition, counselors can help you understand the meaning of the test results and tell you about AIDS-related resources in your area. Anonymous HIV testing is available through health departments and is not name based.

HIV Positive Test Results
If you test positive for HIV, immediate medical treatment and a healthy lifestyle can help you stay well. There are now many drugs that treat HIV infection and AIDS-related illnesses. Prompt medical care may help delay the onset of AIDS and prevent some life-threatening conditions. You can get prompt medical attention, allowing one to take a number of important steps to protect your health:

- See a doctor, even if you do not feel sick. Try to find a doctor who has experience in treating HIV.
- Have a TB (tuberculosis) test done. You may be infected with TB and not know it. Undetected TB can cause serious illness, but it can be successfully treated if caught early.
- Smoking cigarettes, drinking too much alcohol, or using illegal drugs (such as cocaine) can weaken your immune system. Cessation programs are available that can help you reduce or stop using these substances.
- Have a screening test for sexually transmitted diseases (STDs). Undetected STDs can cause serious health problems. It is also important to practice safe-sex behaviors so you can avoid getting STDs.

Recommended HIV Treatment Regimens
Medical science has made progress in the treatment of HIV infection and the associated opportunistic infections (OIs) that come along with HIV. Expanded use of medications for preventing toxoplasmosis, tuberculosis, Mycobacterium avium complex (MAC) and, Pneumocystis carinii pneumonia (PCP), for example, has facilitated with the reduction in the number of people with HIV who ultimately develop serious illness and die from AIDS.

Also, a number of new compounds in the latest class of drugs, called protease inhibitors, have been federally approved to treat HIV infection. These drugs, when taken in combination with previously approved drugs such as AZT, 3TC and ddI, reduce the level of HIV particles circulating in the blood to very low levels in infected individuals. Treatment results using these drugs have been hopeful, as these drug combinations are more effective than any previously available therapies.
The Food and Drug Administration (FDA) has approved a number of drugs for treating HIV infection. The first group of drugs used to treat HIV infection, called nucleoside reverse transcriptase inhibitors, interrupts an early stage of the virus making copies of it. These drugs may decelerate the spread of HIV in the body and slow down the onset of opportunistic infections. This class of drugs, is referred to as nucleoside.

**Nucleoside Reverse Transcriptase Inhibitors (NRTIs):**
NRTIs are faulty versions of building blocks that HIV needs to make more copies of its self. When HIV uses an NRTI instead of a normal building block, reproduction of the virus is stalled.

- AZT (Azidothymidine)
- ddC (zalcitabine)
- ddl (dideoxyinosine)
- d4T (stavudine)
- 3TC (lamivudine)
- Abacavir (ziagen)
- Tenofovir (viread)
- Emtriva (emtricitabine)

**Non-nucleoside Reverse Transcriptase Inhibitors (NNRTIs):**
NNRTIs bind to and disable reverse transcriptase, a protein that HIV needs to make more copies of its self.

- Delavirdine (Rescriptor)
- Nevirapine (Viramune)
- Efavirenz (Sustiva) (in combination with other antiretroviral drugs)

FDA also has approved a second class of drugs for treating HIV infection. These drugs, called protease inhibitors, PIs disable protease a protein that HIV needs to make more copies of itself, this interrupts the virus from making copies of itself at a later step in its life cycle.

**Protease inhibitors include:**

- Ritonavir (Norvir)
- Saquinivir (Invirase)
- Indinavir (Crixivan)
- Amprenivir (Agenerase)
- Nelfinavir (Viracept)
- Lopinavir (Kaletra)
- Atazanavir (Reyataz)
- Fosamprenavir (Lexiva)

FDA also has introduced a third new class of drugs, known at fusion inhibitors, to treat HIV infection. Fuzeon (enfuvirtide or T-20), the first approved fusion inhibitor, works by interfering with HIV-1's ability to enter into cells by blocking the merging of the virus with the cell membranes.

This inhibition blocks HIV's ability to enter and infect the human immune cells. Fuzeon is designed for use in combination with other anti-HIV treatment. It reduces the level of HIV infection in the blood and may be active against HIV that has become resistant to current antiviral treatment schedules.

**ARV**
ARV stands for antiretroviral. Antiretroviral medications are designed to inhibit the reproduction of HIV in the body. If ARV treatment is effective, the deterioration of the immune system and the onset of AIDS can be delayed for years. It is recommended that ARV drugs be used in combinations of at least three drugs.

**HAART**
Highly active antiretroviral therapy (HAART) is the recommended treatment for HIV. HAART means taking a combination (regimen) of three or more anti-HIV (also called antiretroviral) medications from at least two different classes. Anti-HIV medications fall into six classes: non-nucleoside reverse transcriptase inhibitors (NNRTIs),
nucleoside reverse transcriptase inhibitors (NRTIs), protease inhibitors (PIs), entry inhibitors, fusion inhibitors, and integrase inhibitors. Each class of medications blocks the virus in a different way. Taking a combination of medications from different classes makes treatment more effective at controlling the virus. It also reduces the risk of drug-resistance.

The Approved Medications to Treat HIV Infection fact sheet lists the Food and Drug Administration (FDA)-approved anti-HIV medications by class, generic and brand names, and FDA approval date. Some of the medications are available as a combination pill of two or more different anti-HIV medications from one or more classes.

**Appropriate behavior in dealing with HIV Positive People**
A discussion on the appropriate behavior in dealing with persons who are or who may be infected with the HIV virus or who have the AIDS syndrome is not complete, free of pointing out the laws that protect HIV positive individuals from discrimination. Appropriate behavior toward HIV positive people and the law are interconnected. Appropriate behavior is always better appreciated when in comes from the heart and with sensitivity. People with HIV infection or AIDS also feel anxious about their health and about how coworkers will treat them. They want to live and work without being singled out or harassed. They need your understanding and sensitivity.

Regrettably, not everyone is compassionate or caring. Realistically though … it’s no secret; some people are just downright rude, and some are even mean and hateful. An unfortunate by product made necessary by people who fit this group, are the many laws, which have been established to protect HIV positive people from unfair treatment. These laws, not unlike the disease itself, tend to be complicated and can be perplexing. They are designed to protect the rights of HIV positive people, by making certain conduct compulsory so as to compel certain behavior or face the risk of costly legal actions.

Because discrimination laws are complex and compound, without a complete understanding of them, people not intending to be malicious can inadvertently behave contrary to that of which is required by these laws. The only way to protect you from legal actions stemming from conduct contrary to the law is to understand what the laws call for. As always the information in this program is not intended as legal advice. The courts make decisions on a case-by-case basis. Before you get involved in anything that pertains to the information given here, to protect yourself from becoming subject to a court review it is best advised that you consult with an attorney about any questions you may have. This information is intended as a general overview of current laws that protect the rights of HIV positive people, with the expectation you will develop a better understanding of both voluntary behavior toward people with HIV/AIDS, and compulsory behavior toward people with HIV/AIDS, the latter of which if followed can help protect you from unwanted legal actions.

**HIV Positive Coworkers or Customers**
If someone you know has HIV infection or AIDS, you may feel anxious. That is a normal reaction. People with HIV infection or AIDS also feel anxious about their health and about how coworkers will treat them. Be supportive of coworkers with HIV infection or AIDS. If you have a close relationship, you can let the person know you are concerned and offer support.
1. Most people with HIV infection or AIDS are able to function normally and independently. They want to live and work without being singled out or harassed. They need your understanding and sensitivity.
2. Let the person with HIV infection or AIDS decide whom to tell about their situation. Do not spread rumors or gossip about someone with HIV infection or AIDS.
3. People infected with the virus have damaged immune systems. Be careful not to expose them to your colds or coughs. Even a minor cold can be dangerous to someone with HIV infection or AIDS.
4. Your coworkers may have a spouse, family member, life-partner or close friend with the virus. Be supportive of them.

**Discrimination**

**Forms of Discrimination to HIV Positive People**

- Denying a person with AIDS the opportunity to participate;
- Providing different or separate benefits or services;
- Continual harassment;

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Pre-employment inquiries about health status or disability;
Questions as to the nature of a disability in the sale or rental of housing;
Questions about sexual behavior or sexual orientation;
Denial of housing based on a disability;
Discrimination based on associating with a person with AIDS;
Failure to make reasonable changes for benefits;
Violating the confidentiality of a person with AIDS or HIV infection;
Failure to stop discrimination;
Retaliation for a complaint
Keeping medical examination records

Rules protecting HIV positive individuals
1. The ADA also requires employers to make "reasonable accommodations" or their disabled workers. "Reasonable accommodations" mean adapting the workplace to the employee's disability so that he/she can continue working.
2. The person with the disability must identify him or herself as having a disability and must request the accommodation.
3. In Ohio Any person who maliciously, or for monetary gain, breaches the confidentiality of sexually transmitted disease information commits a felony of the third degree.
4. HIV positive people cannot be fired for using health or disability benefits.
5. Plan participants and beneficiaries cannot be discharged, fined, suspended, expelled, disciplined, or discriminated against for exercising any right or prospective rights under a plan.
6. Treatment of employees with AIDS or who is HIV positive should be consistent with treatment of other employee medical conditions.
7. The Employee Retirement Income Security Act of 1974 (ERISA) prohibits forced retirement of an employee with AIDS or HIV infection; denial of short or long term disability payments; denial of disability pension, or discontinuation of health insurance.
8. The Americans with Disabilities Act does also prohibit discrimination in the terms and conditions of employment, including health and disability insurance benefits.
9. An employer may not ask or require a job applicant to take a medical examination before making a job offer. It cannot make any pre-offer inquiry about a disability or the nature or severity of a disability.

Attitudes in the US towards HIV/AIDS
AIDS-related stigma and discrimination refers to prejudice, negative attitudes, abuse and maltreatment directed at people living with HIV and AIDS. They can result in being shunned by family, peers and the wider community; poor treatment in healthcare and education settings; an erosion of rights; psychological damage; and can negatively affect the success of testing and treatment. Fear of contagion coupled with negative, value-based assumptions about people who are infected leads to high levels of stigma surrounding HIV and AIDS are key reasons that there is stigma related to HIV and AIDS.

Stigma not only makes it more difficult for people trying to come to terms with HIV and manage their illness on a personal level, but it also interferes with attempts to fight the AIDS epidemic as a whole. On a national level, the stigma associated with HIV can deter governments from taking fast, effective action against the epidemic, whilst on a personal level it can make individuals reluctant to access HIV testing, treatment and care.

AIDS stigma and discrimination exist worldwide, although they manifest themselves differently across countries, communities, religious groups and individuals. They occur alongside other forms of stigma and discrimination, such as racism, homophobia or misogyny and can be directed towards those involved in what are considered socially unacceptable activities such as prostitution or drug use. HIV/AIDS-related stigma is not a straightforward phenomenon as attitudes towards the epidemic and those affected vary massively. Even within one country reactions to HIV/AIDS will vary between individuals and groups of people. Religion, gender, sexuality, age and levels of AIDS education can all affect how somebody feels about the disease
World Health Organization (WHO) claimed that: “As HIV/AIDS becomes a disease that can be both prevented and treated, attitudes will change, and denial, stigma and discrimination will rapidly be reduced.” It is difficult to assess the accuracy of this statement, as levels of stigma are hard to measure. The fact that stigma remains in developed countries such as America, where treatment has been widely available for over a decade, also indicates that the relationship between HIV treatment and stigma is not straightforward. An estimated 27% of Americans would prefer not to work closely with a woman living with HIV. Moreover, preliminary results from the People Living with HIV Stigma Index found that 17 percent of respondents living with HIV in the UK had been denied health care and that verbal harassment or assault had been experienced by 21 percent of respondents. This data lends to the reality that despite the positive trends toward a reduction in the number of people infected annually, and the advancement in the drug treatments and clinical management of HIV/AIDS what hasn't progressed is the understanding and attitudes toward people who are infected with the HIV virus or who are living with AIDS.

The Effects of Stigma
AIDS-related stigma has had a profound effect on the epidemic’s course. The WHO cites fear of stigma and discrimination as the main reason why people are reluctant to be tested, to disclose HIV status or to take antiretroviral drugs. Fear of being stigmatized and the negative treatment and abuse that can result contribute to the expansion of the epidemic and a higher number of AIDS-related deaths. Fear of being stigmatized leads to an unwillingness to take an HIV test, failure to test means that more people are diagnosed late, when the virus has already progressed to AIDS, making treatment less effective and causing early death.

Government
A country’s laws, rules and policies regarding HIV can have a significant effect on the lives of people living with the virus. Discriminatory practices can alienate and ostracize people living with HIV, reinforcing the stigma surrounding the disease.

In 2010, UNAIDS reported that 71% of countries now have some form of legislation in place to protect people living with HIV from discrimination16. However, Ban Ki-moon, Secretary-General of the United Nations, believes that ‘almost all permit at least some form of discrimination’.

Unfortunately there are still a substantial number of countries that support the stigma through government level discrimination. Not all governments in all countries have enacted laws to protect persons who have or may have become infected with the HIV virus. There are many ways that governments can actively discriminate against people or communities with (or suspected of having) HIV/AIDS. Moreover, some countries have passed legislations that penalize persons living with HIV. Many of these laws have been justified on the grounds that the disease poses a public health risk.

Basic Facts About HIV and the Law
As more effective drug therapies are extending the lives of HIV-positive people—and improving their quality of life—more workers are returning to the workforce and staying productive. Lawsuits filed by HIV-infected workers continue under the ADA. Most of these lawsuits are preventable through training and education.

The majority of people in 2010 who are infected with HIV are between the ages of 25-40 and are employed. The increase in the number of people with HIV means that in time there will be more employees with HIV on the job. That could mean that you, someone you know or employ, or an employee's family member or close friend is already coping with HIV or AIDS. It is important that you know the laws surrounding HIV/AIDS and how they affect labor leaders, managers, and you.

Laws Protecting People Living With HIV/AIDS
AIDS has generated more individual lawsuits across a broad range of health issues than any other disease in history. The following laws must be kept in mind when making decisions that affect any staff/worker with HIV/AIDS:

Which Laws Affect You?
✓ The Americans with Disabilities Act of 1990 (ADA) prohibits employment discrimination on the basis of disability. The ADA, which covers employers of 15 or more people, applies to employment decisions at all stages. Court decisions have found that an individual with even asymptomatic HIV is protected under this law.
The mission of the Occupational Safety and Health Administration (OSHA) is to save lives, prevent injuries, and protect the health of America's workers. To accomplish this, Federal and state governments work in partnership with the more than 100 million working men and women and their six-and-one-half million employers who are covered by the Occupational Safety and Health Act of 1970.

The Family Medical Leave Act of 1993 (FMLA) applies to private-sector employers with 50 or more employees within 75 miles of the work site. Eligible employees may take leave for serious medical conditions or to provide care for an immediate family member with a serious medical condition, including HIV/AIDS. Eligible employees are entitled to a total of 12 weeks of job-protected, unpaid leave during any 12-month period.

The Health Insurance Portability and Accountability Act of 1996 (HIPAA) addresses some of the barriers to health care facing people with HIV as well as other vulnerable populations. HIPAA gives persons with group coverage new protections from discriminatory treatment, makes it easier for small groups (such as businesses with a small number of employees) to obtain and keep health insurance coverage, and gives persons losing/leaving group coverage new options for obtaining individual coverage.

The Consolidated Omnibus Budget Reconciliation Act of 1986 (COBRA) allows employees to continue their health insurance coverage at their own expense for a period of time after their employment ends. For most employees ceasing work for health reasons, the period of time to which benefits may be extended ranges from 18 to 36 months.

Sexually Transmitted Diseases and Infections (STD's) and (STI's)
Sexually transmitted diseases (STD) are also referred to as sexually transmitted infections (STI). More than 300 million new cases of curable sexually transmitted infections (STI) occur each year, with a global distribution that closely mirrors that of HIV. Each new infection not only increases HIV transmission risk but also carries the potential of other serious complications including fetal loss, stillbirths, infertility, ectopic pregnancy and severe congenital infections. Syphilis alone, when present during pregnancy, results in fetal loss in a third of cases, and half the surviving infants suffer congenital disability.

Tuberculosis
Tuberculosis (TB) is a contagious disease, caused by a bacterium called Mycobacterium tuberculosis. TB usually attacks the lungs (pulmonary TB), or vocal cords (laryngeal TB), but can also affect other parts of the body such as the lymph nodes, kidneys, bones, joints, etc. (extra-pulmonary TB).

In 2005 the total number of new cases of tuberculosis in the United States was (14,097), and was the tenth consecutive year the number of reported TB cases has decreased. However, as recently as April 2007 it is reported that Tuberculosis infection is present in 1.8 billion people worldwide. It can affect anyone of any age, and can be fatal.

The disease can now be treated, cured, and prevented. Antibiotic treatment for infectious TB disease will kill the bacteria in the sputum, usually after a few weeks of taking the pills. The person is no longer infectious to others, and can usually go back to their normal routine as soon as they feel up to it. However, scientists have never come close to wiping it out and TB remains one of the most serious diseases worldwide.

Tuberculosis is not transmitted by contact with a person's,
  - clothing,
  - bed linens,
  - dishes and cooking utensils,
  - sitting on a toilet seat, or
  - handshakes with someone who has TB.
TB bacteria are spread the same way that cold and flu viruses are spread: through the air. Tuberculosis infection may result after close contact with a person who has infectious TB disease. The greatest risk of TB transmission occurs when TB bacteria are found in the person’s sputum (phlegm). A person with infectious TB disease, who is not taking tuberculosis medication, has the bacteria in their nose, throat, and lung secretions and they are propelled into the air whenever they cough, sneeze, laugh, talk, or spit. If another person breathes in these germs, there is a chance they will become infected by the TB germ.

A person with TB infection has breathed TB bacteria into his/her lungs. The tubercle bacilli a person inhales may or may not cause tuberculosis. The human immune system has a variety of ways to capture and kill these bacteria. If the immune system is successful in doing so, the person will not become ill with TB. Many people who have TB infection never develop TB disease. In these people, the TB bacteria remain inactive for a lifetime without causing disease. But in other people, especially people who have weak immune systems, the bacteria become active and cause TB disease.

If the immune system doesn’t kill the TB bacteria, the bacteria can remain alive but inactive in the body. This is called TB infection. A person with TB infection is not and does not feel sick and cannot spread TB to others. However, they may progress to TB disease in the future, especially if their immune system weakens. Treatment of TB infection can prevent TB disease. Adults with TB infection have about a 10 % chance of developing TB disease during their lifetime. Adults whose immune system is weakened (serious illness, diabetes, poor eating habits, heavy drinking), the TB bacteria may become active and cause TB disease. People with both TB and HIV infection have a much greater chance of developing TB disease.

Inhaled bacilli, however, may survive the immune system. They may travel throughout the body to organs other than the lungs. In some cases, the bacilli remain active enough to cause tuberculosis. In about 5 percent of all cases, a person develops tuberculosis within twelve to twenty-four months of being exposed to TB bacteria.

**Emerging Strains of TB: MDR-TB and XDR-TB**

The World Health Organization (WHO) has expressed concern over the emergence of virulent drug-resistant strains of tuberculosis (TB) and is calling for measures to be strengthened and implemented to prevent the global spread of the deadly TB strains. This follows research showing the extent of XDR-TB, a newly identified TB threat that leaves patients (including many people living with HIV) virtually untreatable using currently available anti-TB drugs.

**What is MDR-TB and XDR-TB**

TB can usually be treated with a course of four standard, or first-line, anti-TB drugs. If these are misused or mismanaged, multidrugresistant TB (MDR-TB) can develop. MDR-TB takes longer to treat with second-line drugs, which are more expensive and have more side-effects. If these drugs are also misused or mismanaged, extensively drug-resistant TB (XDR-TB) can develop. Because XDR-TB is resistant to first- and second-line drugs, treatment options are seriously limited and so are the chances of cure.

The description of XDR-TB was first used earlier in 2006, following a joint survey by WHO and the US Centers for Disease Control and Prevention (CDC). Resistance to anti-TB drugs in populations is a phenomenon that occurs primarily due to poorly managed TB care. Problems include incorrect drug prescribing practices by providers, poor quality drugs or erratic supply of drugs, and also patient non-adherence.

**People at Risk**

- You have spent time with a person known to have active TB disease or suspected to have active TB disease; or
- You have HIV infection or another condition that puts you at high risk for active TB disease; or
- You have signs and symptoms of active TB disease; or
- You are from a country where active TB disease is very common (most countries in Latin America and the Caribbean, Africa, Asia, Eastern Europe, and Russia); or
- You live somewhere in the United States that active TB disease is more common, such as a homeless shelter, migrant farm camp, prison or jail, and some nursing homes); or
- You inject illegal drugs.

**TB and HIV Co-infection**
HIV is a virus that weakens the cells in the immune system required to fight TB infection. A person who has TB and HIV infection is at a very high risk of TB infection progressing to TB disease. Adults with TB infection have about a 10% chance of developing TB disease in their lifetime. Adults with TB and HIV infection have a 10% risk of developing TB disease every year. TB infection also makes HIV infection progress to AIDS faster. Because their immune system is weak, people with TB and HIV infection may not respond to TB skin tests and their chest x-ray may look normal even if they have TB disease. A person with HIV infection is more likely to develop TB outside the lungs. TB disease may spread from the lungs to the lymph nodes or even to the brain. The symptoms may not be typical, delaying the diagnosis of TB disease and the treatment of TB disease.

**Early Detection of Co-infection**

People with TB and HIV infection need to know about both diseases as soon as possible. They also need to be seen by a doctor who is an expert in this area to find out if they have TB disease. Treatment of TB infection and treatment of TB disease by an expert could save their life!

**Symptoms of TB Disease**

People with TB disease of the lungs or vocal cords feel sick. They usually have symptoms such those listed below and may cause the following:

- a bad cough that lasts longer than 2 weeks
- pain in the chest
- coughing up blood or sputum (phlegm)
- weakness or feeling very tired
- weight loss
- no appetite
- chills
- fever
- night sweats

By the time they see a doctor, they may need to be hospitalized. In the hospital they are kept in a special isolation room to protect other patients and health-care workers from becoming infected with TB. They are asked to wear a mask if they have to leave this room.

**Extrapulmonary Tuberculosis**

TB disease outside the lungs is most often found in the lymph.

Most people with TB disease outside the lungs feel sick or weak, lose weight, and have fever and night sweats. In addition, they may have symptoms from the affected area. Some of the tissues and organs in which extrapulmonary tuberculosis may appear are the following:

- **Bones** (the spine and the ends of the long bones)
- **Kidneys** (kidneys, bladder, the prostate gland (in men), and other nearby organs and tissues)
- **Female reproductive organs** (infection of the ovaries)
- **Abdominal cavity** (membrane lining the abdominal cavity)
- **Joints** (hips and knees. Less commonly, the wrist, hand, and elbow joints) may become painful and inflamed.
- **Meninges** (tissues that cover the brain and the spinal cord. causes tubercular meningitis)
- **Skin, intestines, adrenal glands, and blood vessels** aorta infection
- **Miliary tuberculosis** (when very large numbers of tubercle bacilli spread throughout the body).

**TB Testing**

Because people with TB infection do not feel sick and may not know they have been exposed to TB. Having a TB skin test is the best way to find out if you have been infected. Not all people need a TB test. You should get a TB test if you are at increased risk. See below for conditions or activities that place persons at increased risk.

**The TB Skin Test**

The TB skin test is a way to find out if a person has TB infection. Although there is more than one TB skin test, the preferred method of testing is to use the Mantoux test. A significant reaction to the Mantoux skin test indicates the
presence of Tuberculosis. This test can prove the presence of TB, even when there are no symptoms of tuberculosis or the presence TB organisms in the sputum (the expectorated material coughed up from the respiratory tree). The disease itself is characterized by the appearance of symptoms, the presence of organisms in the sputum, as well as a significant reaction to a Mantoux skin test.

QuantiFERON-TB Gold Test
The QuantiFERON-TB Gold test (QFT-G) is a whole-blood test for use as an aid in diagnosing TB infection, including latent tuberculosis infection (LTBI) and tuberculosis (TB) disease. This test was approved by the U.S. Food and Drug Administration (FDA) in 2005. In order to spread the TB germs, a person must have TB disease. Having TB infection is not enough to spread the germ. Tuberculosis may last for a lifetime as an infection, never developing into the disease. The symptoms of TB disease include a low-grade fever, night sweats, fatigue, weight loss, and a persistent cough. Some people may not have obvious symptoms.

Most people infected with the germ that causes TB never develop active TB. If active TB does develop, it can occur anytime from 2 months after infection to many years later. The risk of active disease lessens as time passes. A person with TB disease may remain contagious until he/she has been on appropriate treatment for several weeks. However, a person with TB infection, but not disease, cannot spread the infection to others, since there are no TB germs in the sputum.

Treatment for TB
In the past, treatment of tuberculosis was primarily supportive. Patients were kept in isolation, away from the healthy population. They were encouraged to rest and to eat well. If these measures failed, surgery was used. Today, surgical procedures are used much less often. Instead, drug therapy has become the primary means of treatment. Patients with TB can now safely rest at home; they pose no threat to other members of the household.

Directly Observed Therapy
Directly observed therapy (DOT) is a component of case management that helps to ensure that clients adhere to therapy. DOT means that a health care worker personally watches the client swallow each dose of TB medication. DOT ensures an accurate account of how much medication the client took. It also provides a mechanism for the early detection of medication adverse reactions or non-adherence.

Drug Therapy
People with active TB disease must complete a course of curative therapy. Initial treatment includes at least four anti-TB drugs for a minimum of 6 months. Medications may be altered based on laboratory test results. A physician must determine the exact medication plan. People with medical risk factors should be skin tested for TB, and their skin test results should be noted in their medical record.

Drugs provide the most effective treatment for TB patients. Three principles govern the use of drug treatment for tuberculosis:

- First, the number of bacilli must be lowered as quickly as possible. By so doing, the risk of transmitting the disease to other people is reduced.
- Second, efforts must be made to prevent the development of drug resistance. If a person develops a resistance to a drug, it will no longer be helpful in curing the disease. As a result, most patients are given a combination of two or three different drugs at first.
- Third, drug treatment must be continued to prevent reoccurrence of the disease.

Five drugs are used today to treat tuberculosis are:

- isoniazid(INH);
- rifampin
- pyrazinamide
- streptomycin and
- ethambutol
Surgery

Treatment for TB can require surgery. Surgery is sometimes used to treat tuberculosis when medication is not effective. One form of surgery involves the introduction of air into the chest. This procedure causes the lung to collapse. In a second procedure, one or more ribs may be removed. A third procedure involves the removal of all or part of a diseased lung. Other forms of surgery may be used in cases of extrapulmonary tuberculosis.

It is VERY IMPORTANT to keep taking TB drugs to complete treatment, otherwise drug-resistant TB may develop. Contact tracing is done to find and skin test family, friends and coworkers to look for the spread of TB infection. Some parts of the population are at higher risk of getting TB than others. The high-risk groups are:

- Elderly people
- Minorities including:
- African Americans
- Hispanics,
- Asians, and people from the
- Pacific Islands
- People who are infected with HIV/AIDS

Prevention of TB

People infected with TB should be evaluated for a course of preventative therapy, which usually includes treatments of an anti-tuberculosis medication for 6 to 12 months. A physician must determine the exact preventive therapy plan. Because HIV infection weakens the immune system, persons with TB infection and HIV infection have a very high risk of getting TB disease. HIV infection strongly increases the risk for tuberculosis infection. TB disease occurs in 7%–10% of patients with HIV infection each year. The increase in numbers of patients with both HIV infection and TB has raised the potential for increasing transmission of drug-resistant tuberculosis strains.

HIV infection, when it occurs in tandem with TB infection, without treatment, can work together to shorten the life of an infected person. Other medical risk factors, which increase the chance of developing TB disease, include diabetes mellitus, prolonged corticosteroid therapy, Immuno-suppressive therapy, cancer, silicosis, as well as being 10 percent or more below ideal body weight.

Seek treatment if TB infection has occurred. It should be noted that TB is one of the few diseases related to HIV infection that is easily prevented and cured with medication. People that are immune-compromised are currently being treated with drug combinations containing three and four different drugs simultaneously. Conversely, in addition to spreading the disease to others, an untreated person will become severely ill or die.

The most important way to stop the spread of tuberculosis is to cover the mouth and nose when coughing, and to take all the TB medication exactly as prescribed by the physician. Some strains of TB have the ability to grow and multiply even in the presence of certain drugs that would normally kill them. There have been some studies that found strongly increased risks for multidrug-resistant TB (MDR TB) among patients coinfected with TB and HIV.

Other people who may develop drug-resistant tuberculosis include TB patients who have failed to take anti-tuberculosis medications as prescribed, TB patients who have been prescribed an ineffective treatment plan, and people who have been treated previously for TB. For patients with disease due to multi-drug-resistant organisms, expert consultation from a specialist in treating multi-drug-resistant TB should be obtained. Patients with multi-drug-resistant disease should be treated with a minimum of two or three drugs to which their organisms are susceptible.

It is currently unknown whether preventive therapy can effectively prevent the development of active TB disease in people who are infected with MDR-TB strains. Nevertheless, recommendations concerning preventive therapy for people who have been infected with MDR-TB are being developed by the Centers for Disease Control (CDC).

The most important ways to stop the spread of MDR-TB remain the same— to cover the mouth and nose when coughing, and to seek adequate treatment. It is also essential that health officials directly oversee the administration of TB medications to people who, due to mental illness or incapacity, are unable to follow the prescribed regimens themselves.
The STDs, HIV Co-infection Connection

Sexually Transmitted Diseases (STDs), also known as sexually transmitted infections or STI, come in a variety of types. There are fungi, bacteria, parasites, and viruses. As explained in the previous section on the subject of Tuberculosis, HIV can affect persons carrying the virus with an increase of multiple medical conditions. Carriers stand an increase chance of contracting many airborne diseases. Germs in their environment can become increasingly troublesome, much more so than for persons not infected. As time continues persons with the HIV virus experience a break down in their immune system, followed by a break down in their health. The continued weakening of the infected individuals’ ability to fight off sicknesses eventually progresses to an accelerated rate. As persons infected with the HIV virus are more susceptible to all types of infections, and illness from the environment, they are equally more susceptible to infections from fungi, bacteria, parasites, and viruses they may come in contact with during a sexual encounter. For this reason it is fitting to review the subject of STDs. Several STDs cause lesions or open sores to occur which may serve as portals of entry directly into the blood stream and better facilitate HIV infection.

1. Some STDs are considered to be co-factors, which assist in the immune system malfunction leading to AIDS.
2. People who leave themselves open to STD infections also leave themselves open to eventual HIV infection.

Prevention and Treatment of STD’s and STI’s

Sexually active individuals should get routine checkups. Some STD’s do not produces immediate symptoms. A long time may pass before signs that there is something wrong appear, alerting the infected individual. Moreover, the sexually active should use every precaution to protect from contracting any one of the many STD’s from their sexual partner. This should be a given, but it is not always the case. Fidelity and loyalty are a valued part of a relationship, however statistics show infidelity occurs in some relationships.

Overall, if you are remotely unsure about your sexual partners’ faithfulness, and you are not using protection, you are gambling your life; it’s as simple as that. Because there are so many different STD’s/STI’s to cover in the context of this unit the list here has been confined to STD’s/STI’s which are prevalent and pose an accelerated threat when compounded with HIV infection the list is of the STD’s that are not uncommonly found in sexually active people that either did not use protection or the protection used failed.

Getting Tested For STDs

For those, which are fungal or bacterial infections, you can be tested as soon as two weeks after exposure. For the viral infections, you will have to wait for your body to produce enough antibodies to that specific virus to take what is called a "titer" blood test. That time is generally 3 months after exposure. An important rule of thumb: should you experience any symptoms after sexual contact, it is advisable to seek the advice of a physician as soon as possible.

Letting symptoms get worse or putting off STD testing can result in severe illness, sterility, Pelvic Inflammatory Disease, passing an infection to your next partner, irreversible damage to your nervous system, or even death. Currently Within the state of Ohio, all Public Health Departments offer STD testing. The Ohio HIV/AIDS Hotline has a listing of STD test sites throughout the state of Ohio. Contact information for a state run test site could be found on the Internet by doing a search.

STDs and STI’s Index

Acquired Immunodeficiency Syndrome (AIDS)
Hepatitis A
Hepatitis B
Hepatitis C
Syphilis
Gonorrhea
Genital Herpes
Genital Warts
Chlamydia
Trichomoniasis (Trich)
Candida/Vaginal Thrush
HEPATITIS
The word *hepatitis* simply means inflammation of the liver. Hepatitis is characterized as a severe inflammation of the liver. It can result from medications, alcohol, or other means including the viruses that cause herpes, mumps, measles, and infectious mononucleosis. Those infected will usually develop liver disease, according to the national Centers for Disease Control and Prevention.

**Viral Hepatitis**
Hepatitis A (HAV), Hepatitis B (HBV), or Hepatitis C (HCV), are the forms of hepatitis commonly referred to by health professionals when they speak of viral hepatitis.

**The Differences between Hepatitis A, B and C**
Although hepatitis A, B and C have some similarities, the viruses are significantly different. Hepatitis A (HAV) is found in the stool (feces) of persons with hepatitis A. HAV is usually spread from person to person by putting something in the mouth (even though it may look clean) that has been contaminated with the stool of a person with hepatitis A.

Symptoms usually appear within 2-6 weeks, but are not followed by the chronic problems that hepatitis B and C viruses can cause. The hepatitis B and C viruses can infect a person if his/her mucous membranes or blood is exposed to an infected person's blood, saliva, wound exudates, semen or vaginal secretions. Symptoms appear more gradually than in hepatitis A. Unlike the hepatitis A virus, the hepatitis B and C viruses can stay in the body sometimes for a lifetime, and may eventually cause chronic and serious liver diseases.

**Infection Control**
Because the different viruses that cause hepatitis enter the body in different ways, there are several steps you can take to protect yourself from infection.

Practicing Universal Precautions, proper hand washing, and good personal hygiene are good first steps in the prevention and spread on many infectious diseases as you read on steps and practices you can follow to help control the spread of infection are included for you.

**The Symptoms of Viral Hepatitis**
The list of signs and symptoms mentioned in various sources for Viral Hepatitis includes the symptoms listed below:

**Initial Infection:**
- No symptoms - in some cases
- Mild symptoms - in some cases

**Early Symptoms of Hepatitis Include:**
- fatigue
- headache
- tenderness in the upper right abdomen
- sore muscles & joints
- loss of appetite
- an altered sense of taste & smell
- nausea,
- vomiting
- diarrhea
- low-grade fever
- malaise
Later symptoms of Hepatitis Include:
- jaundice - abnormally yellow skin & eyes caused by bile entering the blood
- darkened urine;
- light-colored or gray stool
- yellowing skin
- yellowing eyes
- foamy urine

**Diagnosis of Hepatitis**

Although health providers use information about a person's symptoms, health history and behaviors to help make a diagnosis, only blood tests can confirm the diagnosis and pinpoint which type of hepatitis a person has.

**Treatments for Viral Hepatitis**

Since there's no medication that can treat the initial illness that viral hepatitis causes, health professionals manage symptoms as they occur and try to help the body's immune system fight the infection. If you have viral hepatitis, your health care provider may tell you to:

- Avoid alcohol and other drugs, large doses of vitamins, and prescription drugs metabolized by the liver (sometimes including birth control pills)
- Drink high-calorie fluids such as fruit juices and eat a balanced diet that includes dairy products; meat, poultry or seafood; breads and cereals; and fruits and vegetables (To control nausea, try eating several smaller meals)
- Limit activity if your hepatitis is symptomatic; this typically means bed rest at first, progressing to normal activity as symptoms disappear.

Your health professional may recommend hospitalization if you experience severe vomiting or do not feel better after several weeks. You should know that researchers are making gains in treating the chronic liver disease associated with both hepatitis B and C. There is not much available for treatment. Interferon has been approved in chronic hepatitis B and C cases for those aged 18 or older. Prevention is still the best option. The list of treatments mentioned in various sources for Viral Hepatitis includes the following list. Always seek professional medical advice about any treatment or change in treatment plans.

**HEPATITIS A (HAV)**

Hepatitis A is a liver disease caused by the hepatitis A virus (HAV). Hepatitis A can affect anyone. In the United States, hepatitis A can occur in situations ranging from isolated cases of disease to widespread epidemics. Hepatitis A infects 125,000 - 200,000 people each year and can be easily transmitted. Hepatitis A is passed in the stool of infected persons.

Transmission is from person-to-person contact or through contaminated food and water. You can become infected by eating or drinking something that has been contaminated by someone who has the disease.

**Symptoms of HAV**

Symptoms occur 2-6 weeks after infection and can persist from several days to six months. The virus typically causes some illness and has been known to be mistaken for a stomach virus, although occasionally symptoms are more serious. It is seldom fatal and does not cause permanent liver damage. A person with hepatitis A is considered infectious, which means they can transmit the virus to others as early as two weeks before symptoms appear. The hepatitis A virus does not cause the permanent, chronic symptoms that other hepatitis viruses can cause.

**Behavior Practices Associated with Hepatitis A Infection**

- Eating contaminated food, such as undercooked shellfish from contaminated water or food handled by someone who has hepatitis A.
- Using silverware, cups or glasses that an infected person touched with unwashed hands.
- Changing diapers or linens that contain stool from someone with hepatitis A and neglecting to wash your hands.
- Sharing food with an infected person or drinking water contaminated with sewage.
- Oral or anal sexual contact with an infected person.
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- Traveling to developing countries where the disease is common.
- Sharing needles can also put you at risk. The hepatitis A virus can be transmitted through blood if needles are shared. However, poor hygiene, amongst drug users, may account for the high prevalence seen in the drug community.

Preventive Practices: Monitor Your Meals
Practice good personal hygiene. Always wash your hands after any contact with blood, when cleaning or after using the toilet, and before preparing or eating food. Avoid foods that could be contaminated, such as uncooked shellfish or food that's been prepared by someone who has the virus. When traveling to developing countries, drink only bottled or boiled water, don't use ice, which can expose you to hepatitis A, and don't eat raw fruits or vegetables unless they've been peeled. Foods should be washed thoroughly, and then cooked at temperatures high enough to kill germs.

Hepatitis A Vaccine - Two-Dose Schedules
It is also a good idea to get the hepatitis A vaccine. Several inactivated and attenuated hepatitis A vaccines have been developed and evaluated in human clinical trials and in nonhuman primate models of HAV infection; however, only inactivated vaccines have been evaluated for efficacy in controlled clinical trials (36,109). The vaccines currently licensed in the United States are HAVRIX and VAQTA. Both are inactivated vaccines.

Exposure to Hepatitis A
If you think you've been directly exposed to the hepatitis A virus, visit your health care provider immediately for treatment. Some treatments can help ward off the infection if administered in time (hepatitis A vaccine and IgG). All people who have close household or sexual contact with an infected person also need treatment.

Preventing the Spread of Hepatitis A
If you think you may be infected with hepatitis A.
- Always wash your hands well after using the toilet.
- Don't prepare or handle food for others while you are infectious.
- Avoid sexual contact with other people until you have fully recovered

HEPATITIS B (HBV)
More than 400 million people worldwide are chronically infected with hepatitis B virus (HBV). Effective therapy is necessary to prevent the progression of chronic hepatitis B to cirrhosis, hepatocellular carcinoma, and death. In the United States, approximately 300,000 people are infected with HBV annually, from which some cases become fatal. "Hepatitis" means "inflammation of the liver," and its name implies, Hepatitis B is a virus that infects the liver. Hepatitis B is transmitted through 'blood-to-blood' contact.

Hepatitis B initially causes inflammation of the liver, but it can lead to more serious conditions, the virus can cause lifelong infection, cirrhosis (scarring) of the liver and liver cancer, liver failure, and death.

The Hepatitis B virus is very resilient, and it can survive in dried blood for as many as seven days. Because of this fact, this virus tends to be of primary concern for employees such as custodians, laundry personnel, housekeepers, funeral directors, and not uncommonly salon professionals, along with other employees who may come in contact with blood or potentially infectious materials.

Symptoms of HBV
With both forms of hepatitis, an infected person may experience different degrees of symptoms. Some may exhibit no signs of the disease, while others may suffer months of severe symptoms. The symptoms of HBV are like a mild "flu". Initially there is a sense of fatigue, possible stomach pain, loss of appetite, and even nausea. As the disease continues to develop, jaundice (a distinct yellowing of the skin and eyes), and darkened urine often develop.

Prevention of Hepatitis B by HBV Vaccine
Just as the human immunodeficiency virus (HIV), is a bloodborne pathogen of primary concern so it the hepatitis B virus (HBV), and hepatitis C virus (HCV). Hepatitis B it is one of the fastest-spreading sexually transmitted
infections (STI), and also can be spread by sharing needles or by any behavior in which a person's mucus membranes are exposed to an infected person's blood, semen, vaginal secretions, or saliva. Although seldom fatal, 10 percent of people who get hepatitis B are infected for life and run a high risk of developing serious, long-term liver diseases such as cirrhosis of the liver or liver cancer which can cause serious complications or death. A safe, effective vaccine that prevents hepatitis B is available. If you or someone you know practices behaviors that can spread hepatitis B, ask a medical professional about the vaccine.

Risk Behaviors for Contracting HBV
1) Practicing unsafe sex. The more partners with whom you have vaginal, anal or oral contact, the higher your risk of becoming infected with hepatitis B. Abstinence is the most effective way to prevent sex-related transmission. If you have vaginal, anal or oral contact, always use barrier protection. People who have sex with multiple partners should ask their health provider about getting vaccinated for hepatitis B.

2) Sharing needles. No matter what drug is injected, whether its crack, heroin or steroids, sharing needles is extremely risky. In fact, an estimated 60-80 percent of the people who share needles is or has been infected with hepatitis B. Similarly, beware of needles that could be contaminated when getting tattoos, having acupuncture or your ears pierced. Select a reputable professional for these services.

3) Close, frequent contact with the blood, semen, vaginal secretions or saliva of infected persons. Occasionally, people who share living quarters for a long time with others who have hepatitis B have gotten infected. Receiving a blood transfusion or other blood products no longer carries the threat of hepatitis B that it once did. Today, all blood is screened for hepatitis B before it is used.

If you are at risk of contracting hepatitis B, get vaccinated. The hepatitis B vaccine is an inactivated antigen (genetically engineered; not a live or killed virus). It is administered in a series of three injections over a six-month period. Approximately 95% of persons who receive the three injections obtain full immunity after receiving the vaccine.

You are asked to report side effects (rash, nausea, joint pain, and/or fatigue) to your health care provider. Also, avoid high-risk behaviors and practice good personal hygiene when sharing food and using bathrooms. Don't share razors, toothbrushes or pierced earrings with others.

Exposure to Hepatitis B
If you have not been vaccinated against hepatitis B but are exposed to the virus, your health professional can treat you with hepatitis B immune globulin (HBIG), combined with the hepatitis B vaccination. Don't delay, get immunized and vaccinated as soon as possible after exposure.

Safe Practices for Preventing Hepatitis B
- Don't engage in sexual contact without a condom
- Don't donate blood. Bandage all cuts and open sores
- Don't share anything that could be contaminated with your blood, semen, vaginal secretions or saliva – such as needles, razors or toothbrushes
- Wash your hands well after using the toilet
- If you have hepatitis B and you're pregnant, your baby must be immunized at birth. All pregnant women should be screened for hepatitis B

HEPATITIS C (HCV)
HCV is widely viewed as one of the most serious of the five hepatitis viruses. The Hepatitis C virus is spread primarily through contact with infected blood and can cause cirrhosis (irreversible and potentially fatal liver scarring), liver cancer, or liver failure. Hepatitis C is the major reason for liver transplants in the United States, accounting for 1,000 of the procedures annually. The disease is responsible for between 8,000 and 10,000 deaths yearly. Some estimates say the number of HCV-infected people may be four times the number of those infected with the AIDS virus. Hepatitis C is less likely than the other hepatitis viruses to cause serious illness at first (only one
quarter of the people infected actually develops symptoms); about 70% of those infected develop chronic liver disease. Like hepatitis B, hepatitis C can be spread by contact with infected blood, and possibly semen, vaginal secretions and saliva. Hepatitis C infects about 150,000 Americans each year.

Risk Behaviors for Contracting HCV
Risk behaviors follow the same fundamentals, as does HIV, as hepatitis B and hepatitis C are also bloodborne pathogens, and transmission occurs in almost the exact same ways. You are at risk if you share needles; or have sexual contact without barrier protection with infected partners.

Symptoms of hepatitis C include:
- Loss of appetite
- Dark yellow urine or light-colored stools
- Persistent nausea or pains in the stomach
- Lingering fever
- Yellowish eyes or skin know as jaundice
- Fatigue, or tiredness
- Diarrhea

If you have reason to believe that you may be infected or have these symptoms, see a doctor for testing.

Prevention of Hepatitis C
Since hepatitis C is transmitted in much the same way as hepatitis B, you can help avoid infection by using some of the same precautions. Always use barrier protection during sexual contact; practice good personal hygiene; and never share needles, razors, toothbrushes or pierced earrings with anyone.

All donated blood is screened for the virus. Drugs are licensed for treatment of persons with chronic infection, though they are only about 15-30% effective. Currently, there is no vaccine available.

Hepatitis C Treatment
Some patients learn they have hepatitis through a routine physical or when they donate blood and a blood test shows elevated liver enzymes. Once diagnosed, health professionals recommend the following:
- See a doctor regularly
- If liver damage is present, get vaccinated against hepatitis A, a food- and water-borne virus.
- Don’t start any new medicines or use over-the-counter, herbal, or other drugs without consulting with a doctor.
- Stop using alcohol

Co-infection with HIV and Hepatitis C Virus
About one quarter of HIV-infected persons in the United States are also infected with hepatitis C virus (HCV). HCV is one of the most important causes of chronic liver disease in the United States and HCV infection progresses more rapidly to liver damage in HIV infected persons. HCV infection may also impact the course and management of HIV infection. The latest U.S. Public Health Service/ Infectious Diseases Society of America (USPHS/IDSA) guidelines recommend that all HIV-infected persons should be screened for HCV infection. Prevention of HCV infection for those not already infected and reducing chronic liver disease in those who are infected are important concerns for HIV-infected individuals and their health care providers.

SYPHILIS
Syphilis, a bacterial infection, is primarily a sexually transmitted disease (STD). Any person that is sexually active can be infected with syphilis, although there is a greater incidence among young people between the ages of 15 and 30 years. It is more prevalent in urban areas.
Transmission of Syphilis
Syphilis is spread by sexual contact with an infected individual, with the exception of congenital syphilis, which is spread from mother to fetus. Transmission by sexual contact requires exposure to moist lesions of skin or mucous membranes.

Symptoms of Syphilis
The first sign of syphilis is generally one or more painless sores that become visible at the site of initial contact. It might be accompanied by swollen glands, which develop within a week after the appearance of the first sore. The sore will persist for 1 to 5 weeks and will vanish by itself, even if no medical care is obtained. Roughly 6 weeks after the sore first appears, a person will enter the second stage of the disease. The most likely symptom during this stage is a rash, which might appear on any part of the body: trunk, arms, legs, palms, soles, etc. Other, more generalized symptoms include fatigue, swollen glands, fever, headaches, loss of appetite, and sore throat. These symptoms will last 2 to 6 weeks and will disappear with or without medical care.

After the second stage of the disease, the only way syphilis can be detected is through a blood test, although secondary symptoms might sporadically occur again. Persons having syphilis for over four years may suffer from illness in the skin, bones, central nervous system, and heart, and may experience a reduced life expectancy, impaired health, and eventually can limit occupational efficiency.

Symptoms can emerge from 10 to 90 days after an individual becomes infected, though usually within 3 to 4 weeks. Symptoms often go unnoticed or are thought to be minor abrasions or heat rash, thus treatment is not sought. When, and for how long is a person able to spread syphilis? Syphilis is considered contagious for a duration of up to 2 years, perhaps more. The extent of communicability depends on the existence of infectious lesions (sores), which may or may not be visible. There is no natural immunity to syphilis and prior infection lends no defense to the patient.

Treatment of Syphilis
Syphilis is treated with penicillin or tetracycline. The amount of medication a patient must take and treatment depends on the stage of syphilis. Expectant women with a history of allergic reaction to penicillin should undergo penicillin desensitization, followed by appropriate penicillin therapy. Untreated syphilis can lead to destruction of soft tissue and bone, heart failure, insanity, blindness, and a variety of other conditions, which may be mild to incapacitating.

Equally as important, a pregnant woman with untreated syphilis will transmit the disease to her unborn child, which may result in death or deformity of the child. Physicians and hospitals are required to test pregnant women for syphilis at prenatal visits. Tests of newborns or their mothers are required at the time of delivery.

Prevention of Syphilis
There are a number of ways to prevent the spread of syphilis:
- Limit your number of sex partners.
- Use a condom.
- Carefully wash genitals after sexual relations.
- If you think you are infected, avoid any sexual contact and visit your local STD clinic, a hospital, or your doctor.
- Notify all sexual contacts immediately so they can obtain examination and treatment.
- All pregnant women should receive at least one prenatal blood test for syphilis.

THE FLU VIRUS – Influenza
If you don’t think of the flu as life threatening it may surprise you to know that The CDC estimates that 43 million to 89 million people had H1N1 between April 2009 and April 2010. They estimate between 8,870 and 18,300 H1N1 related deaths. If you have the flu don’t go to work, and if you have a client with the flu, cancel there appointment and reschedule it when they are well. Brining someone into the salon, or your work area that has the flu is guaranteed to end with bad results. The flu is a very serious illness.
The History of Flu Pandemic
A pandemic is a global disease outbreak. It is determined by how the disease spreads, not how many deaths it causes. When a new influenza virus emerges, a flu pandemic can occur. Because the virus is new, the human population has little to no immunity against it. With no immunity in the population, the virus spreads quickly from person-to-person worldwide.

Flu pandemics have occurred throughout history. There have been four since 1918, each with different characteristics. Illness from the 1918 flu pandemic, also known as the Spanish flu, came on quickly. Some people felt fine in the morning but died by nightfall. People who caught the Spanish Flu but did not die from it often died from complications caused by bacteria, such as pneumonia.

1918 – 1919
During the 1918 pandemic:
• Approximately 20% to 40% of the worldwide population became ill
• An estimated 50 million people died
• Nearly 675,000 people died in the United States

And it’s not just the old, the young or the sick that suffered. Unlike earlier pandemics and seasonal flu outbreaks, the 1918 pandemic flu saw high mortality rates among healthy adults. In fact, the illness and mortality rates were highest among adults 20 to 50 years old. The reasons for this remain unknown.

1957 – 1958
However, another wave of illness came in January and February of 1958. This is an example of the potential "second wave" of infections that can happen during a pandemic. Although the 1957 pandemic was not as devastating as the 1918 pandemic, about 69,800 people in the United States died.

1968 – 1969
In early 1968, a new flu virus was detected in Hong Kong. Deaths from this virus peaked in December 1968 and January 1969. The number of deaths between September 1968 and March 1969 was 33,800, making it the mildest flu pandemic in the 20th century. The same virus returned in 1970 and 1972.

H1N1 2009 – 2010
In the spring of 2009, a new flu virus spread quickly across the United States and the world. The first U.S. case of H1N1 (swine flu) was diagnosed on April 15, 2009. By April 21, the Centers for Disease Control and Prevention (CDC) was working to develop a vaccine for this new virus. On April 26, the U.S. government declared H1N1 a public health emergency.

By June, 18,000 cases of H1N1 had been reported in the United States. A total of 74 countries were affected by the pandemic. H1N1 vaccine supply was limited in the beginning. People at the highest risk of complications got the vaccine first.

By November 2009, 48 states had reported cases of H1N1, mostly in young people. That same month, over 61 million vaccine doses were ready. Reports of flu activity began to decline in parts of the country, which gave the medical community a chance to vaccinate more people. 80 million people were vaccinated against H1N1, which minimized the impact of the illness.

The CDC estimates that 43 million to 89 million people had H1N1 between April 2009 and April 2010. They estimate between 8,870 and 18,300 H1N1 related deaths.

The world is now in the post-pandemic period. Based on knowledge about past pandemics, the H1N1 (2009) virus is expected to continue to circulate as a seasonal virus for some years to come. While the level of concern is now greatly diminished, vigilance on the part of national health authorities remains important. Such vigilance is
especially critical in the immediate post-pandemic period, when the behavior of the H1N1 (2009) virus as a seasonal virus cannot be reliably predicted.

National health authorities are reminded that cases and local outbreaks of H1N1 (2009) infection will continue to occur, and in some locations, such outbreaks could have a substantial impact on communities.

A small proportion of people infected during the pandemic developed a severe form of primary viral pneumonia that is not commonly seen during seasonal epidemics and is especially difficult to treat. It is not known whether this pattern will continue during the post-pandemic period, further emphasizing the need for vigilance.

Groups at increased risk of severe illness from the pandemic H1N1 virus included young children, pregnant women, and people with underlying respiratory or other chronic conditions, including asthma and diabetes. Patients who have severe or deteriorating influenza should be treated as soon as possible with Anti-viral drugs. Patients who are at higher risk of severe or complicated influenza should be treated with Anti-viral drugs soon as possible.

When H1N1 was first detected in 2009, it was called “swine flu” because the virus was similar to those found in pigs.

**H5N1 (Avian Flu)**
H5N1 (avian flu) is a highly contagious virus found in wild aquatic birds, domestic poultry, and other animal species. Although avian flu viruses do not usually infect humans, nearly 600 cases of human H5N1 have been reported worldwide since 2003.

1. Most human cases of H5N1 occur in people who are directly exposed to infected poultry.
2. There have been no reported cases on H5N1 flu viruses in birds, poultry, or people in the United States.
3. You cannot get H5N1 from properly handled and cooked poultry or eggs.
4. Unlike other types of flu, the H5N1 flu virus usually does not spread between people.

**What is H5N1 flu?**
H5N1 (avian flu) is a highly contagious virus found in wild aquatic birds. It can also infect domestic poultry and other bird and animal species. Avian flu viruses do not normally infect humans. Rare cases of H5N1 in humans have been reported. Most human cases of H5N1 occur in people directly exposed to infected poultry. You cannot get H5N1 from properly handled and cooked poultry or eggs.

**Is H5N1 still a threat?**
Since 2003, nearly 600 cases of human infection with H5N1 flu have been reported by 15 countries in Asia, Africa, the Pacific, Europe, and the Near East. There have been no reported cases of H5N1 flu viruses in birds, poultry, or people in the United States. The World Health Organization (WHO) maintains records of human H5N1 cases around the world (PDF - 26 KB).

**The symptoms of H5N1 include:**
- Seasonal flu symptoms
- Eye infections
- Severe respiratory illness:
  - Shortness of breath/difficulty breathing
  - Pneumonia
- Acute respiratory distress
- Viral pneumonia
- Nausea and vomiting
- Abdominal pain
- Diarrhea
- Neurological changes:
  - Altered mental state
  - Seizures
How does H5N1 flu spread?
Unlike other types of flu, the H5N1 flu virus does not usually spread between people. Most cases of H5N1 occur in people exposed to infected poultry.

How can I prevent H5N1 flu?
Most people who get H5N1 come in direct contact with infected poultry. The best way to prevent H5N1 flu is to avoid infected poultry.

The United States government carefully controls domestic and imported food products. In 2004, they issued a ban on importing poultry from countries affected by avian influenza viruses, including H5N1. This ban is still in effect.

You cannot get H5N1 from properly handled and cooked poultry and eggs. When preparing poultry or eggs:
✧ Wash your hands with soap and warm water for at least 20 seconds before and after handling raw poultry or eggs
✧ Clean cutting boards and other utensils with soap and water to keep raw poultry from contaminating other foods.
✧ Use a food thermometer to make sure you cook poultry to a temperature of at least 165o F.
✧ Cook eggs until whites and yolks are firm.

Who monitors H5N1 in the United States?
WHO coordinates the global response to human cases of H5N1 flu and monitors the threat of an H5N1 flu pandemic.

MRSA
MRSA (Methicillin-Resistant Staphylococcus aureus) Infections
MRSA means methicillin-resistant Staphylococcus aureus bacteria.

What is methicillin-resistant Staphylococcus aureus (MRSA)?
MRSA stands for methicillin-resistant Staphylococcus aureus (S. aureus) bacteria. This organism is known for causing skin infections in addition to many other types of infections.

Unfortunately, MRSA strains of bacteria can be found worldwide. In general, healthy people with no cuts, abrasions, or breaks on their skin are at low risk for getting infected. However, the bacteria can be passed from person to person by direct contact with infected skin, mucus, or droplets spread by coughs in both adults and children. Indirect contact also can spread the bacteria; for example, touching items like towels, utensils, clothing, or other objects that have been in contact with an infected person can spread the bacteria to other uninfected individuals. Investigators estimate that about one out of every 100 people in the U.S. are colonized with MRSA (have the organisms in or on their body but not causing infection), and these individuals may transmit MRSA bacteria to others by the same methods listed above. Another term for people colonized with MRSA is "carrier" which means the person carries the organism in or on the body and may transfer the organism to another person who subsequently may become infected. A common place for carriers to harbor MRSA organisms is the nose.

On the skin, MRSA infection may begin as a reddish rash with lesion(s) that looks like a pimple or small boil. Often it progresses to an open, inflamed area of skin (as pictured below) that may weep pus or drain other similar fluid. In some instances, it may appear as an abscess, a swollen, tender area, often with reddish skin covering. When the abscess is cut open or spontaneously bursts open, pus drains from the area (see Figure 2). See the first web citation for more clinical MRSA pictures, or see the MRSA slideshow listed above.

What are the signs and symptoms of MRSA infection?
Most MRSA infections are skin infections that produce the following signs and symptoms:

✧ Cellulitis (infection of the skin or the fat and tissues that lie immediately beneath the skin, usually starting as small red bumps in the skin),
✧ Boils (pus-filled infections of hair follicles),
Abscesses (collections of pus in under the skin),
Sty (infection of eyelid gland),
Carbuncles (infections larger than an abscess, usually with several openings to the skin), and
Impetigo (a skin infection with pus-filled blisters).

One major problem with MRSA is that occasionally the skin infection can spread to almost any other organ in the body. When this happens, more severe symptoms develop.

Transmission
MRSA infections can be contagious from person to person; occasionally direct contact with a MRSA-infected person is not necessary because the bacteria can also be spread by people who touch materials or surfaces contaminated with MRSA organisms.

There are two major ways people become infected with MRSA. The first is physical contact with someone who is either infected or is a carrier (people who are not infected but are colonized with the bacteria on their body) of MRSA.

The second way is for people to physically contact MRSA on any objects such as door handles, floors, sinks, or towels that have been touched by a MRSA-infected person or carrier.

Normal skin tissue in people usually does not allow MRSA infection to develop; however, if there are cuts, abrasions, or other skin flaws such as psoriasis (a chronic inflammatory skin disease with dry patches, redness, and scaly skin), MRSA may proliferate.

Many otherwise healthy individuals, especially children and young adults, do not notice small skin imperfections or scrapes and may be lax in taking precautions about skin contacts. This is the likely reason MRSA outbreaks occur in diverse types of people such as school team players (like football players or wrestlers), dormitory residents, and armed-services personnel in constant close contact.

People with higher risk of MRSA infection are those with obvious skin breaks (for example, patients with surgical or traumatic wounds or hospital patients with intravenous lines, burns, or skin ulcers) and people with depressed immune systems (infants, the elderly, or HIV-infected individuals) or those with chronic diseases (diabetes or cancer).

As long as people, including carriers, have MRSA organisms in wounds or droplets that are shed into the environment, they are contagious. Carriers must be very careful about personal hygiene (especially coughs, itching or scratching skin, and sneezing) as they may be contagious indefinitely.

Diagnosis
Most doctors start with a complete history and physical exam of the patient to identify any skin changes that may be due to MRSA, especially if the patient or caretaker mentions a close association with a person who has been diagnosed with MRSA.

A skin sample, sample of pus from a wound, or blood, urine, or biopsy material (tissue sample) is sent to a microbiology lab and cultured for S. aureus. If S. aureus is isolated (grown on a Petri plate), the bacteria are then exposed to different antibiotics, including methicillin. S. aureus bacteria that grow well when methicillin is in the culture are termed MRSA, and the patient is diagnosed as MRSA infected.

The same procedure is done to determine if someone is a MRSA carrier (screening for a carrier), but sample skin or mucous membrane sites are only swabbed, not biopsied. These tests help distinguish MRSA infections from other skin changes that often appear initially similar to MRSA, such as spider bites and skin changes that occur with Lyme disease. These tests are very important; misidentification of a MRSA infection may cause the patient to be treated with other agents like dapsone (used for spider bites). This can result in progression of the MRSA infection and even other complications due to the dapsone.

Rapid Test – StaphSR Assay
In 2008, the U.S. Food and Drug Administration (FDA) approved a rapid blood test (StaphSR assay) that can detect the presence of MRSA genetic material in a blood sample in as little as two hours. The test is also able to determine whether the genetic material is from MRSA or from less dangerous forms of Staph bacteria. The test (PCR based) is not recommended for use in monitoring treatment of MRSA infections and should not be used as the only basis for the diagnosis of a MRSA infection. In addition, there are new screening tests that report detecting or ruling out MRSA infections in about five hours.

Prevention
Not making direct contact with skin, clothing, and any items that come in contact with either MRSA patients or MRSA carriers is the best way to avoid MRSA infection. In many instances, this situation is simply not practical because such infected individuals or carriers are not immediately identifiable. What people can do is to treat and cover (for example, antiseptic cream and a Band-Aid) any skin breaks or wounds and use excellent hygiene practices, such as hand washing with soap after personal contact or toilet use, washing clothes that potentially came in contact with MRSA patients or carriers, and using disposable items when treating MRSA patients. Also available at most stores are antiseptic solutions and wipes to both clean hands and surfaces that may contact MRSA. These measures help control the spread of MRSA.

In the salon or your work area you should always be aware that when a client touches anything there is the potential for MRSA. You can’t see it with the naked eye so you can’t know if it is there or not. This is where Universal Precautions and good sanitation and disinfecting practices are most helpful. Keep a spray handy and wipe down everything in your work area between clients.

In 2007, the first incidence of MRSA in a pet was recorded. Although relatively rare, MRSA can be transferred between pets and humans. MRSA has been documented in dogs, cats, and horses but may be found in other animals in the future. Care and treatments are similar to those in humans, but a veterinarian should be consulted on all potential cases.

MRSA has been isolated from the environment (for example, beach sand and water), but there is no good documentation that people have become infected from these sources. Most authors suggest prevention methods should consist of a good soap and water shower after visiting the beach.

What you can do to protect yourself against becoming infected with MRSA
① The CDC guidelines; you are unlikely to become infected while providing body wrapping services if they do the following:
② Wash your hands with soap and water after physical contact with a client before leaving the work area.
③ Towels used for drying hands after contact should be used only once.
④ Disposable gloves should be worn if contact with body fluids are expected, and hands should be washed after removing the gloves.
⑥ Always use clean linens and towels on every client, never share capes and smocks with your clients.
⑦ The work environment should be cleaned routinely and when soiled or when a client’s skin comes in contact.
⑧ Do not provide services for anyone that you know is infected with or colonized with MRSA.

MRSA infections facts
The majority of MRSA infections are classified as CA-MRSA (community acquired) or HA-MRSA (hospital- or health-care-acquired).

MRSA infections are transmitted from person to person by direct contact with the skin, clothing, or area (for example, sink, bench, bed, and utensil) that had recent physical contact with a MRSA-infected person.

The majority of CA-MRSA starts as skin infections; HA-MRSA can begin an infection of the skin, a wound (often a surgical site), or a location where medical devices are placed (catheters, IV lines, or other devices). Cellulitis, abscess, or draining pus is often one of the first signs and symptoms of MRSA infections.

Most MRSA infections are diagnosed by culture and antibiotic sensitivity testing of Staphylococcus aureus bacteria isolated from an infected site; a PCR test is also available.
Currently, MRSA bacteria are almost always found to be resistant to multiple antibiotics. All isolated MRSA strains need to have antibiotic susceptibility determined to choose the correct or appropriate antibiotic therapy.

Prevention of MRSA is possible by excellent hygiene practices, avoiding skin contact with infected people or items they have touched, and by wearing disposable gloves, gowns, and masks when treating or visiting hospitalized MRSA patients. Covering skin abrasions and minor lacerations immediately may also help prevent MRSA infections, especially in children and in people involved in group sports activities.

Statistical data suggest that as many as 19,000 people per year have died from MRSA in the U.S.; data supplied by the CDC in 2010 suggest this number has declined by about 28% from 2005 to 2008, in part, because of prevention practices at hospitals and home care.

Although S. aureus has been causing infections (Staph infections) probably as long as the human race has existed, MRSA has a relatively short history. MRSA was first noted in 1961, about two years after the antibiotic methicillin was initially used to treat S. aureus and other infectious bacteria.

In 2009, research showed that many antibiotic-resistant genes and toxins are bundled and transferred together to other bacteria, which speed the development of toxic and resistant strains of MRSA. S. aureus is sometimes termed a "superbug" because of its ability to be resistant to several antibiotics.

What does a MRSA infection look like?
In addition, these organisms have been termed "flesh-eating bacteria" because of their occasional rapid spread and destruction of human skin. Additionally, a number of older (2004-2008) web and popular press articles are titled or include the erroneous term "MRSA virus." This is a misnomer that has confused many people; there is no contagious MRSA virus, and if readers examine these articles, they may realize the content is usually about MRSA bacteria.
UNIT 2
HIV/AIDS and Communicable Diseases
SECTION REVIEW

11. Anonymous HIV testing is available through health departments and is not name based.
   TRUE      FALSE

12. Latex condoms can prevent the transfer of AIDS.
   TRUE      FALSE

13. People with HIV are easy to identify.
   TRUE      FALSE

14. HIV is spread from one person to another through sharing of needles, unprotected sexual contact, and blood and body fluid.
   TRUE      FALSE

15. The first sign of syphilis is generally a sore(s) that is painless and becomes visible at the site of initial contact.
   TRUE      FALSE

16. Female with untreated syphilis will transmit the disease to her unborn child. TRUE FALSE

17. Tuberculosis is spread through the air.
   TRUE      FALSE

18. MRSA infections are transmitted from person to person by direct contact with the skin of a MRSA-infected person or something that had recent physical contact with a MRSA-infected person.
   TRUE      FALSE
UNIT 3
Sanitation, Sterilization and Infection Control for the Florida Body wrapper
(Four Credit Hours)

Unit Learning Objectives
After completing this unit, you should be able to:
- List the types and classifications of bacteria.
- Discuss bacteria and its role in the spread of disease.
- List the ways pathogens can enter the body.
- Define viruses and how they spread, are treated, and how to prevent them.
- Understand the difference between bacterial infection and a viral infection.
- Know what a bloodborne pathogen is and name several types.
- Understand immunity and the difference between natural and acquired immunity.
- Describe vegetable and animal parasites that may be seen in the salon.
- Discuss the principles of infection control and prevention.
- Distinguish between sterilization and sanitation.
- Distinguish between disinfectants and antiseptics.
- Discuss the different types of disinfectants and how they are used.
- Explain the purpose of the EPA.
- Explain the purpose of the Occupational Safety and Health Administration.
- List the sections of a material safety data sheet.
- Identify disinfectants that can be and those that cannot be used in Florida salons.
- Safely sanitize and disinfect various salon tools and surfaces.
- Understand the importance of handwashing as a primary component of infection control.
- Follow the steps for proper handwashing and how to use hand sanitzers to sanitize hands.
- Discuss Universal Precautions and your responsibilities as a salon professional.
- List personal protection equipment and the reason to use barriers.
- Describe the guidelines to present a professional body Wrapper image
- Follow 61G5-20.002. Florida Administrative Code on salon requirements

INTRODUCTION
This unit covers the subjects that deal with proper sterilization to protect both you and the public. The subjects discussed in this unit are sanitation and sterilization, of the different types of infectious agents. It defines what bacteria are and reviews the different types of bacteria. The unit outlines the growth and reproduction of bacteria, and how bacteria can cause infection. Attention is given to how a person can be a carrier of disease, how to sterile implements, procedures for sterilizing manicure implements, and the different ways to sterilize with chemical agents. It concludes with the basic rules to follow for a safe salon and, finally, rule 61G5-20.002: Salon Requirements.

Sanitation and Sterilization
While we typically note how our doctors and dentists maintain a sterile environment, most of us do not consider that the same standards should be set for those who are digging, filing, and clipping away at our feet and fingernails. Yet, the consequences of an unsanitary salon can be the same as those at any medical facility.

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Body Wrap Specialist

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As a body wrapper serving the public, you will come in close contact with many clients. To avoid the spread of disease-producing bacteria, it is necessary for you to follow good sanitation and sterilization practices. You should understand the rules and the regulations, as well as the facts pertaining to this subject, for your own protection and for the protection of your clients.

The Responsibility is Yours
Before AIDS and hepatitis became household names, the cosmetology and barbering industry were under little scrutiny as risks for spreading infectious diseases. However, since the 1980s, an epidemic of bloodborne diseases has forced a reexamination of the beauty industry. As a professional cosmetologist, you have responsibilities to the state, your clients, and your profession to learn and to use appropriate precautionary measures and cleaning procedures. You must follow these procedures to protect both you and your clients; reduce the incidence of bacterial, viral, and fungal infection; and prevent the spread of disease. You, your instruments, and workstation by law, must be kept clean and sanitary.

The sanitation and sterilization of equipment and surroundings are very important and, in order for you, the body Wrapper to be professional, you must first study bacteria. It is vital you understand how the spread of disease can be prevented and become familiar with the precautions that must be taken to protect you and your clients’ health.

It is the responsibility of the salon staff as a team to keep the salon clean and sanitary. It is the responsibility of the individual to keep their instruments and work area clean, sanitary and germ free.

A growing number of states are beginning to use electronic complaint forms. The Florida Board of Cosmetology now have consumer complaint forms available online. These forms are quick and convenient to use. They allow the public to communicate possible infractions to the regulating board. Keeping a clean and sanitary salon will not only protect the client and the salon professional, but it will also ensure the salon professional will not run into troubles resulting from non-compliance of the sanitation laws.

The Florida law governing salon sanitation will be discussed later in this unit. For now let’s take a look at bacteria, the growth of bacteria, and how they reproduce.

Contagious Diseases
The transfer of infectious material causes skin infections, as well as blood poisoning, from one individual to another. Another way which infectious material can transfer is by unsanitary implements (such as combs, hairpins, brushes, etc.). These tools of the trade can act as a vehicle, being used first on an infected person, and then on another without having been cleaned or sterilized properly.

Bacteria
Bacteria are tiny. They consist of one-celled microorganisms found roughly everyplace. Bacteria are particularly abundant in dust, dirt, refuse, and diseased tissues. Commonly, bacteria are not perceptible except with the aid of a microscope. Just to give you an idea of the size, fifteen hundred rod-shaped bacteria can fit on the head of a pinhead. They will become noticeable when thousands of them grow to form a "colony" and can be seen as a mass.

Bacteria are classified as to their harmful or beneficial qualities. It must be kept in mind that not all bacteria are harmful to us. In fact, a great majority of bacteria are helpful and useful. There are two classifications of bacteria:

1. Non-pathogenic organisms constitute the majority of all bacteria and perform many useful functions, such as decomposing refuse and improving the fertility of the soil. To this group belongs the saprophyte, which lives on dead matter.

2. Pathogenic organisms (microbes or germs), although in the minority, produce considerable damage by invading plant or animal tissues. Pathogenic bacteria are harmful because they produce disease. To this group belong the parasites, which require living material for their growth.

BHi.edu  Body Wrap Specialist
Harmful Bacteria
Bacteria are responsible for a large percentage of illness and suffering. For this reason, the practice of sterilization and sanitation is necessary in a salon, barbershop or specialty salon, or anywhere that services are provided to a client for compensation.

Pathogenic Bacteria Classification
As to form or general appearance, there are three major groups of bacteria.
1. **Cocci** (singular, coccus) are round shaped organisms, which appear singly or in groups:
   (a) *Staphylococci* (singular, staphylococcus)—pus-forming organisms which grow in bunches or clusters, and are present in abscesses, pustules and boils.
   (b) *Streptococci* (singular, streptococcus)—pus-forming organisms which grow in chains, as found in blood poisoning.
   (c) *Diplococci* (singular, diplococcus)—grow in pairs and cause pneumonia.
   (d) *Gonococci* (singular, gonococcus)—cause gonorrhea.
   (e) *Meningococci* (singular, Meningococci)—cause meningitis.

2. **Bacilli** (singular, bacillus) are rod-shaped organisms, which vary greatly in thickness. They are the most common and produce such diseases as tetanus (lockjaw), influenza, typhoid, tuberculosis, and diphtheria. Many bacilli are spore forming.

3. **Spirilla** (singular, spirillum) are curved or corkscrew-shaped organisms. They are further subdivided into several groups. The sub-group of chief importance is that of spirochaete organisms. The spirochaete called *Treponema pallida* is the causative agent in syphilis.

**MOVEMENT OF BACTERIA**
Half of all bacteria are capable of directed movement.

1. **Cocci**: rarely show active motility (self-movement). They are transmitted in the air, in dust, or within the substance in which they settle.

2. **Bacilli and spirilla**: motile; use slender, hairlike extensions known as flagella or cilia for locomotion. Flagella are whip-structures that beat their way through the water. Spiral bacteria types also spiral through the water like a corkscrew.

**Growth and Reproduction**
Bacteria consist of an outer cell wall and internal protoplasm. They manufacture their own food from the surrounding environment, give off waste products, and are capable of growth and reproduction. Bacteria may exhibit two distinct phases in their life cycles — the active stage and the inactive or spore-forming stage.

**Active Stage**
Bacteria grow and reproduce. These microorganisms live and multiply in warm, dark, damp, and dirty places where sufficient food is present. Many parts of the human anatomy offer suitable breeding places for bacteria. When conditions are as mentioned above, bacteria reproduce at an unbelievable rate. As food is absorbed and converted into protoplasm, the bacterial cell increases in size. When the limit of growth is reached, it divides crossways in half, forming two daughter cells. From as little as one bacterium, as many as sixteen million more may develop in half a day.

**Spore-Forming Stage**
When favorable conditions cease to exist, bacteria either die or cease to multiply. Some bacteria can form spherical spores, which have a tough outer covering and are able to withstand long periods of dryness, periods of lacking food, or unsuitable temperature. Examples of bacteria that are capable of such action would be the anthrax and tetanus bacilli. In the spore stage, the spore can be blown about in...
the dust and is not harmed by disinfectants, heat or cold. When favorable conditions are restored, the spore changes back into the active, vegetative form and again starts to grow and reproduce.

**Bacterial Infections**

Pathogenic bacteria become dangerous to health only when they successfully invade the body. An infection occurs when disease-causing or pathogenic bacteria invade body tissues and the body is unable to cope with the bacteria or their harmful toxins. There can be no bacterial infection without the presence of pathogenic bacteria.

An infection may be localized, as in a boil, or a general infection (the most dangerous) may result when the blood stream carries the bacteria and their toxins to all parts of the body, which is what occurs in blood poisoning or syphilis. The presence of pus is a sign of infection. Pus contains bacteria, body cells and blood cells, both living and dead. An infection is considered contagious when it tends to spread more or less readily from one person to another by direct or indirect contact. Precautions must be followed to prevent the spread of infection when it is in this contagious stage.

The three types of infections in review are:

1. **Local infection:** confined to a single area such as a pimple, boil, or infected cut.

2. **General infection:** when pathogenic bacteria and their toxins are carried to all parts of the body by the bloodstream; examples are blood poisoning and syphilis. This is very dangerous type of infection requiring immediate medical attention.

3. **Contagious or communicable diseases:** spread from one person to another by direct or indirect contact such as coughing, sneezing, unclean hands, unclean implements, open sores, common drinking cups, common towels, etc.

**How Bacteria Enter Our Bodies**

- Bacteria and other infectious agents can enter the body through any of the following routes —
- Through the mouth, by food, drinking liquids, or items placed in the mouth
- Through the nose and mouth when we breathe
- Through the eyes via dirt, dirty hands, or unclean objects such as poorly maintained contact lenses; or the ears by way of swimming in untreated water and
- Through breaks or wounds in the skin
- From unprotected sex

**Sources of Contagious Bacteria**

Unclean hands and unsterilized instruments can be sources of contagious bacteria. Open sores and pus, mouth and nose discharges, and the common use of drinking cups and towels are a few other examples. Uncovered coughing or sneezing, and spitting in public can also spread germs.

Personal hygiene and public sanitation can prevent and control many infections. The body attempts to fight infections by mobilizing its defensive forces. The first line of defense is unbroken skin. In a healthy person bodily secretions such as sweating and digestive juices discourage bacteria growth. Within the blood, there are white corpuscles to devour bacteria, and anti-toxins to counteract the toxins produced by the bacteria. We also host helpful bacteria in our bodies that help keep other bacteria entering the body in check.

**Viruses**

One difference between viruses and bacteria is that a virus can live and reproduce only by penetrating other cells and becoming part of them, while bacteria can live and reproduce on their own. Bacterial
Infections can usually be treated with specific antibiotics, while viruses are hard to kill without harming the body in the process. Antibiotics do not affect viruses.

A virus is a microorganism capable of infecting almost all plants and animals, including bacteria. They are so small that they can only be seen under powerful microscopes available. They cause common colds and other respiratory and gastrointestinal infections.

**Examples of some human viruses include:**

<table>
<thead>
<tr>
<th>Virus</th>
<th>Disease</th>
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<tbody>
<tr>
<td>Measles</td>
<td>Yellow fever,</td>
</tr>
<tr>
<td>Mumps</td>
<td>Polio</td>
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<tr>
<td>Chicken Pox</td>
<td>Influenza,</td>
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<tr>
<td>Smallpox</td>
<td>Hepatitis A</td>
</tr>
<tr>
<td>Rabies</td>
<td>Hepatitis B</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>Hepatitis C</td>
</tr>
<tr>
<td>HINI</td>
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</tbody>
</table>

Vaccinations are not effective unless taken before being infected. Vaccinations cannot cure an individuals infected with a virus, it is for prevention only.

**Fungi**

Fungi are not plants. Living things are organized for study into large, basic groups called kingdoms. Fungi were listed in the “Plant Kingdom” for many years. Then scientists learned that fungi show a closer relation to animals, but are unique and separate life forms. Now, Fungi are placed in their own Kingdom. Fungi are microscopic and consist of many cells. In this group are included the molds, mildews, and yeast’s. Fungi are incapable of manufacturing their own food. Some behave as parasites. These fungi cause diseases by using living organisms for food. These fungi infect plants, animals and even other fungi. Athlete’s foot and ringworm are two fungal diseases in humans.

**Bloodborne Pathogens**

Bloodborne Pathogens means pathogenic microorganisms that can cause disease in humans, which are present in human blood and are carried through the body in the blood or body fluids. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV). Bloodborne pathogens are transmitted when contaminated blood or body fluids enter the body of another person.

This can happen in a number of ways. However the ways we are most concerned with are those that can occur in the work place. Anytime blood is introduced into your environment it puts you at risk if it is not handled properly.

As a body Wrapper, your biggest risk of exposure is most likely to occur from contaminated blood introduced into the workplace by a client of another salon worker who they accidentally cut with shears.

Unbroken skin forms an impervious barrier against bloodborne pathogens. However, infected blood can enter your body through:

- Open sores
- Open cuts or skin abrasions coming in contact with contaminated blood or body fluids
- Acne
- Any sort of damaged or broken skin such as sunburn or blisters

**Parasites**

A parasite is an organism that lives on or in a host and gets its food from or at the expense of its host. Parasites can cause disease in humans. Some parasitic diseases are easily treated and some are not.
Parasitic diseases are found to be a problem in all areas of the world. There are three main classes of parasites that can cause disease in humans: protozoa, helminths, and ectoparasites.

**Parasites are:**
1. **Parasites**: vegetable or animal organisms that live in or on other living organisms. Examples are head and body lice.

2. **Vegetable parasites or fungi**: produce contagious diseases such as ringworm or favus (a disease of the scalp).

3. **Animal parasites**: parasites carried by mosquitoes cause malaria; itch mite burrows under skin and causes scabies. Infestation with head lice is pediculosis capitis.

Protozoa are one celled animal organisms characterized by their distinct nuclei. There are various kinds of protozoa, among which are parasites. Animal parasites consisting of many cells and belonging to the insect class. They are responsible for such contagious infections as scabies, which are due to the itch mite.

It is not uncommon to see an unknowing client in the salon that is infected with either type of parasite, but you must know how to recognize the contagious diseases caused by parasites and you must know that you are never to treat such an infection or provide a service for an infected person. Should you encounter a client that is infected they should be referred to a physician.

**Immunity**

Immunity is the ability of the body to resist and destroy bacteria once they have entered the body. Immunity against disease is a sign of good health. It may be natural or acquired.

1. **Natural immunity**: is the inborn ability to resist certain diseases, partly inherited and partly developed through hygienic living.

2. **Acquired immunity**: is immunity that has developed after the body has overcome a disease or through inoculation. An example of this would be chicken pox; once a person is infected and the infection runs its course the individual is immune to subsequent infections of chicken pox.

**The Body’s Roll in Fighting Infection**

Human bodies have a number of strategies to fight infections or prevent them. The whole of our infection fighting apparatus is called the “immune system.” The human body’s immune system doesn’t just include white blood cells, which attempt to catch and destroy germs, but a variety of mechanisms that stop germs from creating infection.

In most cases, humans have certain properties in their bodies that are called innate immunities, allowing bodies to fight infections at virtually all times. For example, the skin, our largest organ, is constantly fighting infection, or warding off infection by acting as a barrier against foreign, non-human cells. Other parts of our bodies, or contents in our bodies are always on guard to fight infections.

The gut and stomach contain mucus that can trap small numbers of foreign bacterial cells, keeping the body from becoming infected. Human bodies use a variety of acids in organs that create hostile environments for foreign cells. We also host helpful bacteria in our bodies that help keep other bacteria from entering the body in check.

- Unbroken skin
- Body secretions such as perspiration and digestive juices
- White blood cells
- Antitoxins
Human Carrier
A person may be immune to a disease and still carry germs that can infect others. Such a person is called a human disease carrier. The diseases most frequently transmitted in this manner are typhoid fever and diphtheria. Physical agents such as heat (boiling, steaming, baking, or burning), and chemical agents such as antiseptics, disinfectants or germicides can accomplish destruction of bacteria.

Salon Sanitation and the Body wrapper
As we will study in the last section of this program Florida law is different for registered body wrapper than for any of the other license types regulated by the Florida Board of Cosmetology in several aspects. The primary difference in the laws that regulate body wrapper from the other licensees governed by the cosmetology board is that, but for a narrow band of exceptions, no other license type is permitted to provide personal services outside of a licensed salon. Florida law doesn’t require that body wrapping services be always performed within the confines of a salon.

However if you are not in a salon you will have to put a major amount of personal time into networking, client building and client retention, to build and keep a client base sufficient to earn a decent wage. Which is nearly a full time job in itself. Most body wrapping services are done in a salon generally because that is where the clients gravitate. When you offer your services in a salon the customers for the most part come to you. For that reason most body wrapper will eventually be providing services in a salon at one time or another in their career.

Most body wrappers at some time will be working in a salon they should know proper sanitation procedures and the Florida salon requirements for the salon as a whole, and not just for the limited number and type of tools and implements that are used to provide the body wrapping services.

To be safe in the work place everyone needs to be following the rules. It only takes one person cutting corners to put everyone at risk. Since it is likely that you will be working in a location with others who are practicing cosmetology according to their license type. When you are working in a salon you should know if the people you are working around are following proper salon sanitation procedures.

In the following section you will see how salon sanitation is properly carried out, even if for articles that you don’t use directly in the services that you offer. All the same when you provide body wrapping services in a salon you will observe these items being used by other licensed professionals working there so you should know and recognize when proper sanitation procedures are being practiced in the salon you are working in.

You may even own a salon one day. In the state of Florida you are permitted to be a salon owner without being required to hold a cosmetology license, and you can be sure that the owner of a salon is responsible to know the proper sanitation methods under the law. The salon owner is accountable for everyone in the salon, and how the salon requirements are being carried out. When the inspector gives a ticket in the salon one goes to the licensee that violated the rule and another is given to the salon owner for the same violation, with little exception. So sanitation and sterilization is everybody’s business.

PRINCIPLES OF PREVENTION

CONTAMINATION
Contaminated means the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface. Bacterial contamination is a situation, which occurs when bacteria end up in a location where they are not supposed to be. It is often used to refer to contamination of food by bacteria, which can cause disease, but bacterial contamination can also occur in any setting. We are concerned with the salon and any area that body wrapper services are given.
Contamination is not a desirable situation, because it can pose a health threat and cause other problems. As a result, steps are taken to avoid bacterial contamination in settings where it can become an issue. A contaminant is any substance that causes contamination.

DECONTAMINATION
The process of decontamination is the removal of pathogens and other substances from tools or surfaces. There are three levels of decontamination. As a body wrapper the two levels that you will be responsible to follow within the location that you shall offer services and with the implements and tools you use in the process or providing services are disinfection and sanitation are required in the salon. However to best understand decontamination we will look at all three levels of decontamination here.

The following are the three levels of decontamination:

1. Sterilization
2. Disinfection
3. Sanitation

STERILIZATION
Sterilization is the highest level of decontamination; destroys every organism on surface whether beneficial or harmful. Kills bacterial spores--the most resistant form of life on earth. Includes the steam autoclave and dry heat.

Typically sterilization is impractical and is not a requirement for tools and implements used to provide most salon services, primarily because the services are non-invasive and do not break the skin. Therefore the implements do not come in contact with blood or body fluid. As you can imagine sterilization is not required for the tools and implements used by body wrapper when providing body wrapping services, so for the most part you are not going to need to follow sterilization procedures in the course of your daily routine.

Although it should be pointed out here that in some salons where there are body piercing, tattooed body art or permanent makeup services performed, sterilization of tools used for those type services are required for any tools that are not disposable. The rule of thumb is any non-disposable implement that comes in contact with blood or body fluid during the process of its use must be sterilized before it can be used again. OSHA’s policy is to identify, primarily on the basis of the item’s intended use, whether cleaning, disinfection, or sterilization is necessary. Many modern salons that offer these type services have gone the way of disposable needles and piercing implements for these type services.

The Florida Board of Cosmetology does not regulate body piercing, body art, or permanent makeup services, although such services are sometimes offered in salons that are under the regulation of the Florida Board of Cosmetology. Individuals that offer these type services are nonetheless required to follow sanitation and sterilization laws for the salon and they must also meet OSHA requirements and regulations under the Florida Board of Environmental Health, among other regulations.

Individuals that provide these type services are mentioned here because in recent years these services have become popular with the public and as they have more salons are bringing in qualified individuals that can meet the public demand. As a result it is becoming more and more common to find the need for sterilization procedures in salons. You may encounter others offering these type services if you will be operating out of a salon at some point in time.

Antiseptics vs. Disinfectants
Antiseptic solutions are weaker than disinfectant solutions. Antiseptics retard the growth of bacteria. They may not kill all the germs, but will prevent them from multiplying. They are gentle enough to be used on the skin. Antiseptics should only be used as sanitizers and are inappropriate to be used to disinfect salon
instruments. Disinfectants on the other hand are much stronger and have the ability to destroy bacteria and prevent their multiplication.

A germicide is a chemical agent that kills bacteria. The reason it is required that we sterilize is to destroy bacteria. It is a necessity to destroy bacteria in order to prevent the spread of diseases. This is the way we protect the public and ourselves.

Disinfectants and germicides are also antiseptic because they kill germs and retard the growth of more germs. Disinfectants are used to destroy bacteria and are used to sanitize equipment and implements but they should not be used on the skin. Disinfectants must be able to kill viruses, fungus, and dangerous bacteria.

Antiseptics, on the other hand, are not as powerful as germicides or disinfectants. Therefore, they cannot be used as a germicide or disinfectant because they are not able to perform the necessary degree of germ killing. Always exercise caution when using any chemical on the skin. Many of the disinfectants and germicides are not manufactured with the intention of being placed on the skin and for this reason should not make contact with the skin. Read the manufacturer’s directions and the section on cautions posted on the label or the container, before you use any chemical product.

**DISINFECTION**

Disinfection controls microorganisms on nonporous surfaces such as instruments or implements. It is a higher level of decontamination than sanitation. It is second only to sterilization. Disinfection cannot kill bacterial spores. Disinfection cannot be used on human skin, hair, or nails.

When using a disinfectant you are required to always read and follow the manufacturer’s directions.

**Hospital Level Disinfectants Registered With the EPA**

The Environmental Protection Agency (EPA) over sees the approval of disinfectants. To find an appropriate disinfectant look for an EPA registration number before making a selection. If you do not see an EPA registration number, chances are that is not an approved disinfectant. When choosing a disinfectant for use in your salon, you must choose one that is of hospital quality, so it is capable of killing viruses, dangerous bacteria, and harmful fungus.

In the past and still in some states both bleach and alcohol have been used as disinfectants. However, both of these agents have many disadvantages and they should no longer be used as a disinfectant in the state of Florida. Alcohols are not EPA-registered as disinfectants therefore they are not permitted for use with implements in states requiring hospital-level disinfection. Remember the state of Florida requires that you use a hospital level disinfectant.

Many common germicides are extremely poisonous, and therefore should not be used in beauty culture practice. These germicides act differently on different types of bacteria. Each one has been standardized for the concentration that is most effective. Certain germicides, when concentrated enough to be deadly to bacteria, cannot be used safely on the skin. Phenol, or carbolic acid, is a dangerous germicide. You should always wear protective barriers such as gloves when handling it.

Also, be aware that Formalin is no longer an accepted disinfectant. This type of disinfectant contains formaldehyde, which may be a cancer-causing agent. In addition, Formalin is hazardous to inhale, and may cause various skin irritations.

**Environmental Protection Agency**

The Environmental Protection Agency or EPA approves over 300 separate disinfecting products that are approved for sanitizing surfaces and implements used in and around body wrapping services. To be expectable for use under the cosmetology laws of Florida a disinfectant must first gain EPA approval.
1. Product label must contain EPA registration number.
2. Label lists organisms the product has been tested for.
3. Label gives directions for use.
4. Label lists safety precautions.
5. Label lists active ingredients.

**High-level disinfection:** High-level disinfection processes destroy vegetative bacteria, mycobacteria, fungi and enveloped (lipid) and non-enveloped (non lipid) viruses, but not necessarily bacterial spores. High-level disinfectant chemicals (also called chemical sterilants) must be capable of sterilization when contact time is extended. Items must be thoroughly cleaned prior to high-level disinfection.

**Material Safety Data Sheet** or **MSDS** sheets provide pertinent information such as product content, hazards, and combustion levels, storage requirements and are required to be maintained on the premises of the location that services are provided.

You will not be providing services that require chemicals but you will be using chemicals to properly sanitize and disinfect your work area and the tools and implements you use on each client. Therefore you need to understand what a MSDS sheet is, what it contains and that you are required to maintain MSDS sheets for each chemical substance that you use in your workplace, regardless of where you are providing the services.

Be it in a salon or other legal location you need to maintain the sanitation and sterilization of the area to be in compliance with the state sanitation and sterilization laws.

**MSDS Sheets for Disinfectants**

Some chemical disinfectants may have qualities that require the manufacture of the disinfectant to follow federal labeling requirements and the law regarding MSDS sheets. Chemical manufacturers and importers must evaluate the hazards of the chemicals they produce or import. Using that information, they must then prepare labels for containers, and more detailed technical bulletins called material safety data sheets.

Material Safety Data Sheets (MSDS) are mandatory and must be supplied to you by all manufacturers. You are required to keep these sheets on location. So the information contained on the sheet is readily available to you if an accident happens or if a reaction to the substance occurs.

These sheets have vital information and facts to ensure the safety of you and your clients. Chemical manufacturers of hazardous chemicals are all required to provide the appropriate labels and material safety data sheets to the employers to which they ship the chemicals. The information is to be provided automatically. Some of the common yet important information located on the MSDS is as follows:

- **Chemical Product & Company Identification**
- **Composition/Information on Ingredients**
- **Hazards Identification**
- **First-aid measures**
- **Fire Fighting Measures**
- **Accidental Release Measures**
- **Handling and Storage**
- **Exposure Controls/Personal Protection**

<table>
<thead>
<tr>
<th>Chemicals &amp; Company Identification</th>
<th>Stability and Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composition/Information on Ingredients</td>
<td>Toxicological Information</td>
</tr>
<tr>
<td>Hazards Identification</td>
<td>Ecological Information</td>
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<tr>
<td>First-aid measures</td>
<td>Disposal Considerations</td>
</tr>
<tr>
<td>Fire Fighting Measures</td>
<td>Transport Information</td>
</tr>
<tr>
<td>Accidental Release Measures</td>
<td>Preparation Data</td>
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<tr>
<td>Handling and Storage</td>
<td>Regulatory Information</td>
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<tr>
<td>Exposure Controls/Personal Protection</td>
<td>Other Information</td>
</tr>
<tr>
<td>Physical and Chemical Characteristics</td>
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</tbody>
</table>
COURSE UNIT 3 - SANITATION, STERILIZATION, AND INFECTION CONTROL FOR THE FLORIDA BODY WRAPER

<table>
<thead>
<tr>
<th>SECTION I: CHEMICAL PRODUCT COMPANY IDENTIFICATION</th>
</tr>
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<tbody>
<tr>
<td><strong>BHI.edu</strong> Body Wrap Specialist</td>
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<table>
<thead>
<tr>
<th>SECTION II: COMPOSITION INFORMATION CHAIN OF RECIPIENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chemical Name</strong>: Sodium Hypochlorite (NaClO) 70%</td>
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<tr>
<td><strong>Chemical Form</strong>: Liquid</td>
</tr>
<tr>
<td><strong>CAS No.</strong>: 7778-50-9</td>
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<thead>
<tr>
<th>SECTION III: HAZARDOUS IDENTIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inhalation</strong>: Clear, colorless liquid</td>
</tr>
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<thead>
<tr>
<th>SECTION IV: FIRE AND EXPLOSION PROPERTIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flash Point</strong>: Nil</td>
</tr>
<tr>
<td><strong>Flammable Limits</strong>: LEL: Nil, UEL:</td>
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<table>
<thead>
<tr>
<th>SECTION V: FIRST AID AND EMERGENCY PROCEDURES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inhalation</strong>: Clear, colorless liquid</td>
</tr>
<tr>
<td><strong>Eye</strong>: May cause burns to the eyes.</td>
</tr>
<tr>
<td><strong>Skin</strong>: May cause burns to the skin.</td>
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</tbody>
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<table>
<thead>
<tr>
<th>SECTION VI: FIRE FIGHTING MEASURES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flammability</strong>: No</td>
</tr>
<tr>
<td><strong>Extinguishing Agent</strong>: Water</td>
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<table>
<thead>
<tr>
<th>SECTION VII: TOXICITY INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environmental Considerations</strong>:</td>
</tr>
<tr>
<td><strong>Acute Oral Toxicity</strong>: Oral LD50: 410 mg/kg</td>
</tr>
<tr>
<td><strong>Acute Inhaling Toxicity</strong>:</td>
</tr>
<tr>
<td><strong>Acute Skin Irritation</strong>:</td>
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<tr>
<th>SECTION VIII: DISPOSAL CONSIDERATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Waste Disposal</strong>: Performed by the user.</td>
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<tr>
<th>SECTION IX: TRANSPORT INFORMATION</th>
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<tbody>
<tr>
<td><strong>Country of Registration</strong>:</td>
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<table>
<thead>
<tr>
<th>SECTION X: REGULATORY INFORMATION</th>
</tr>
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<tbody>
<tr>
<td><strong>Federal Regulations</strong>:</td>
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<table>
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<tr>
<th>SECTION XI: OTHER INFORMATION</th>
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<tbody>
<tr>
<td><strong>NFPA SYSTEM</strong>:</td>
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BHI.edu

Body Wrap Specialist
OSHA - Occupational Safety and Health Administration

As a salon professional you need to understand what the Occupational Safety and Health Administration or OSHA is and how OSHA affects the way you practice your trade as a body wrapper. OSHA was created as part of the U. S. Department of Labor to enforce safety and health standards in the workplace.

December 29, 1970 President Richard M. Nixon signed the Occupational Safety and Health Act of 1970. In May of the following year the first standards were adopted to provide a baseline for safety and health protection in American workplaces.

This regulation created the Hazard Communication Act, which requires that chemical manufacturers and suppliers assess the hazards associated with their products. Material Safety Data Sheets (MSDS sheets) are a result of this law. Regulating employee exposure to potentially toxic substances and informing employees about possible hazards of materials used in the workplace are part of the mission and purpose of OSHA.

OSHA’s mission is to assure the safety and health of America’s workers by setting and enforcing standards; providing training, outreach, and education; establishing partnerships; and encouraging continual improvement in workplace safety and health.

Since the agency was created in 1971, workplace fatalities have been cut in half and occupational injury and illness rates have declined 40 percent. OSHA is focusing on three strategies:
1) Strong, fair, and effective enforcement;
2) Outreach, education, and compliance assistance; and
3) Partnerships and voluntary programs.

While no rules have been developed by OSHA specifically for the salon, individuals engaged in the practice of cosmetology are expected to abide by all OSHA rules contained within the Code of Federal Regulations (29 CFR) that deal with workplace safety and health.

These rules describe the responsibilities of employers and employees in dealing with hazardous chemicals, personal protective devices, proper ventilation, and prevention from over exposure to dusts, and overall health and safety plans. As well as bloodborne pathogens, universal precautions and handling of blood spills.

OHSARegulation

OSHA regulates the chemical materials decided to be hazardous, ensuring appropriate warnings, proper labels, emergency planning, precautions for safe handling and use, and other health related issues. The Food and Drug Administration has the responsibility and authority to ensure that all chemicals and cosmetics used in a salon are deemed safe.

Chemicals and cosmetics will not cause harm if used properly, and there are many precautions to help ensure that the products you use daily are safe. As a cosmetology professional, you should become educated on the safety rules for proper use and disposal of all chemicals and cosmetics used in the cosmetology profession, as well as, their health hazards, warnings and emergency procedures.

Choosing A Disinfectant

A disinfectant is a chemical or physical agent that is applied to inanimate objects to kill microbes. It is important that you choose the correct disinfectant according to the task. The Disinfectant you choose will depend on several factors. In cases of accidents when someone is cut and blood spills or in the work area you cannot use the same type disinfectant that you use to typically clean the work area.

When an area has been exposed to blood you are required to follow specific steps and use specific type of disinfectants to clean and disinfect the area so that it is safe. Bloodborne Pathogens Standard: requires
use of EPA-registered tuberculocidal disinfectant or an EPA-registered disinfectant labeled as effective against HIV and HBV.

1. Correct efficacy (effectiveness) to be used against bacteria, fungi, and viruses.
2. Hospital level disinfectant: must be pseudomonacidal, bactericidal, fungicidal, and virucidal.
3. OSHA’s Bloodborne Pathogens Standard: requires use of EPA-registered tuberculocidal disinfectant or an EPA-registered disinfectant labeled as effective against HIV and HBV.

PROPER USE OF CHEMICAL DISINFECTANTS

- Disinfect or discard: this refers to the infection control practice applied to items that have been used in the process of providing a service where it has come in contact with that client. You must either disinfect the tool before it can be used again, or if it is a disposable item it should be properly discarded.
- Always pre-cleaned the surface with soap and water before applying a disinfectant.
- Dilute the disinfectant solution according to the manufactures instructions.
- Leave the solution on the surface for the prescribed “contact time”, contact time, meaning the required time the disinfectant is required to be in contact with the surface it is intended to disinfect.
- Spray on contact time per directions if the product is one that is applied by spraying.
- Always wash all implements thoroughly with warm soapy water before immersing them in a disinfectant.
- Use final plain water rinse to remove all traces of soap.
- If instructions require that the object to be disinfected be immersed the object must be completely submerged in the disinfectant for the required time per directions.
- Immerse implements into wet sterilizer filled with hospital level disinfectant.
- Remove implements from wet sterilizer, rinse in water, and wipe dry with clean towel.
- Store sterilized implements in individually Wrapped cellophane envelopes or keep them in a cabinet sterilizer until ready to be used.
- Always read the directions for all disinfectants used and follow the directions precisely.

TYPES OF DISINFECTANTS

Florida law requires that disinfectants used must be EPA-registered.

Sodium Hypochlorite
Sodium Hypochlorite is commonly called household bleach is effective as a disinfectant for many uses but has not been tested and is not approved for disinfection of salon implements. Nor does household bleach meet requirements for blood spills. Bleach is effective as a laundering additive. Bleach can cause skin irritation. Some individuals are allergic to bleach and can have adverse reactions when they breath in the vapors.

Alcohols
Florida is one of the states that do not permit alcohol to be used to disinfect tools and implements in the salon. The CDC Guideline for Environmental Control indicates that isopropyl alcohol and ethyl alcohol
have been excluded as high-level disinfectants because of their inability to inactivate bacterial spores and because of the inability of isopropyl alcohol to inactivate hydrophilic viruses. Alcohols are not EPA-registered as disinfectants therefore your tools or implements used to provide services cannot be disinfected with alcohol, an appropriate hospital-level disinfectant must be purchased and always be available for you to use to disinfect your tools and implements.

**Fumigants**

In the past formalin tablets were used as fumigants in dry cabinet "sanitizers". This was prior to the availability of EPA approved disinfectants, and before the research was in on how formaldehyde vapors are carcinogenic with high levels of exposure. Another danger of using fumigant tablets is the possibility of developing allergic sensitivity in persons who persistently inhale these vapors. Fumigants are no longer required in the salon for a number of reasons. One is that fumigant tablets to be effective must be kept in an airtight container; even then it takes 24 hours to kill a single fungus while liquid disinfectants kill all fungi in 10 minutes.

Another real good reason is fumigant vapors are poisonous, and are particularly irritating to the eyes, nose, throat, and lungs, and can cause skin allergies, irritation, dryness, and rash. Moreover, federal law requires that the label instructions be followed to the letter; and lastly, long-term exposure to formaldehyde vapors can aggravate existing lung problems, and may create other symptoms similar to those seen in people with chronic bronchitis or asthma.

Disinfectants may cause serious skin and eye damage. Some disinfectants appear clear, while others are a little cloudy, especially phenolics. A good rule to remember is always use caution when handling these products and.

**DISINFECTANT SAFETY**

Disinfectants are hazardous if used incorrectly. Some are poisonous if ingested; some cause skin and eye damage. It is important to be safe when using disinfectants, and always avoid skin contact. Here are some guidelines:

1. Wear gloves and safety glasses.
2. Add disinfectant to water. Never add water to disinfectant.
3. Use tongs, gloves, or draining basket when removing implements from disinfectants.
4. Keep away from children.
5. Don’t pour strong disinfectants over hands. Wash your hands with soap and warm water and dry thoroughly.
6. Carefully weigh and measure products.
7. Never place in unmarked container.
8. Always follow manufacturer’s directions.

**WET SANITIZERS**

One of the legal requirements for Florida salons is that “wet sanitizers” must be available and used to disinfect tools and implements between clients. In the Florida Administrative Code the law is:

**Salon Requirements**

61G5-20.002 (2) (d)

(d) Sanitizers: All salons shall be equipped with and utilize wet sanitizers with hospital level disinfectant or EPA approved disinfectant, sufficient to allow for disinfecting practices.
1. A wet sanitizer is any receptacle containing a disinfectant solution and large enough to allow for a complete immersion of the articles. A cover shall be provided.

So what is a “wet sanitizer”? The law says it is any receptacle large enough to allow for a complete immersion of the articles, and it shall have a cover. A wet sanitizer is a container that you select at your local store that is large enough to hold enough liquid that will cover your salon tools and implements when you place them in it to sanitize them. How big that will need to be depends on how many items you want to disinfect at a time. If you are going to disinfect a large number of items at one time you will want to get a container that is bigger. Keep in mind of course that the bigger your container the heavier it is for you to pick up when you need to discard the solution.

Containers that are frequently used in salons as wet sanitizers are plastic storage containers that come with tight lids. You know the type; they are those plastic boxes that we purchase for our home to store all kinds of things in. A container the size of a doublewide shoebox or a boot box is great to use as a wet sanitizer.

These type plastic containers can be found in grocery stores, and department stores as well as value stores. It is important that the lid is always kept on the wet sanitizer to keep dust and dirt out of the disinfecting solution. Dust and dirt in the wet sanitizer makes the disinfecting solution less effective at killing bacteria. Ultimately a wet sanitizer is a good-sized plastic container with a lid that you buy down at the store.

When state salon inspectors visit your location one thing they will ask is for you to show them your wet sanitizer. Another thing you can expect they are going to want is for you to show them the disinfectant that you use in the wet sanitizer. They will require that you show them an EPA-registered hospital level disinfectant. Make sure you always have it on hand and that you are using it in your wet sanitizer in compliance with the manufacture instructions.

**DISINFECTING TOOLS, EQUIPMENT, AND YOUR WORK AREA**

For the body Wrapper these include work surfaces, robes, capes, smocks, towels, and any other implements that you use to provide body Wrapping services.

1. Clean tools and equipment to remove all visible matter and residue.

2. Rinse thoroughly and pat dry with a clean towel.

3. Completely immerse implements in a properly mixed disinfecting solution of 10 minutes or per the manufacturer’s directions.

5. Rinse and dry tools thoroughly.

6. Store disinfected implements. Store disinfected implements in a clean container and in a sanitary manner between uses. A clean drawer can be used for storage of tools if only clean items are in it. Never seal tools inside a closed airtight container; they may not be completely dry, which can promote bacterial growth.

**TOWELS, LINENS, SMOCKS AND CAPEs**

As a body wrapper you are required to follow salon sanitation and disinfection rules. Use disposable neck strips or clean towels to keep capes body wrapping services from touching the client’s skin. Properly drape clients with a clean cape to protect their clothing during the service. If a cape touches skin, do not use it again until it has been cleaned.

Clean towels and linens must be used for each client. Once a towel or linen has been used on a client, it must not be used again until it has been properly laundered. Store soiled linens and towels in a closed container separate from clean linens and towels.
Make sure that the top of the container for soiled towels remains secure and closed at all times. This way if any germs, bacteria or other unseen contaminants that may have transferred to the towel or linens remain in the container and are not spread in the salon or work area.

Florida law requires that you store clean towels in a closed linen cabinet so that dust and airborne particles and debris don’t settle on towels that are intended for use on a client. Also linen cabinets should not contain other items; the linen cabinet should be dedicated for clean linens. Placing items in a linen cabinet introduces bacteria and contaminants to the clean towels and linens.

Towels that are used for cleaning do not need to be kept in a closed cabinet but should be kept separate from towels that are intended for use on clients. Whenever possible, use disposable towels, especially in restrooms.

**WORK SURFACES**
Keep in mind that bacteria live on human skin, when you have a client that comes into the work area it is a natural process for them to put their hands on things in your work area. Just taking a seat often includes the client holding the counter area to balance as the take a seat. Some are curious and pick things up to look at them.

When you use an item on a client and then sit it down on the counter or on the top of your tool cart whatever was on that client is now on that counter.

Before beginning a service for each client, all work surfaces, (counter, chairs, tool carts, etc.) must be cleaned by wiping with a clean disposable towel. Clean tables and chairs frequently and disinfect them whenever a client touches them with their skin. Clean doorknobs and handles daily to reduce germs on hands.

**Cleaning Combs and Brushes**
Remove the hair from combs and brushes. Immerse combs and brushes completely into a bowl of soapy water for several minutes. Clean each comb separately with a small brush. Clean the brushes two at a time by rubbing the bristles against each other. When thoroughly cleaned, rinse combs and brushes in bowl of clear, warm water. Drain off water and remove any adhering hairs.

**Sanitizing Combs and Brushes**
How to prepare a chemical sterilization: Clean sterilized receptacle, add soapy water and fill with a sufficient quantity of hospital level disinfectant. Now prepare a bowl of warm water for rinsing purposes. Immerse combs and brushes into hospital level disinfectant no less than 20 minutes. Remove combs and brushes, rinse in clear clean water, and dry them thoroughly with a clean towel. When thoroughly dry place the combs and brushes on a clean towel in a dust free place.

**Sterilizing Metallic Implements with Chemical Solutions**
Prepare a bowl of warm soapy water. Prepare hospital level disinfectant in wet sterilizer or use any other type of disinfectant approved by the State Board. Immerse implements complete in disinfectant solution. If necessary, replace chemical in dry sterilizer. Have ready, a supply of clean towels and individual envelopes.

**How to Sterilize**
Sterilization is the process of destroying all bacteria, whether they are harmful or beneficial. Here is a list of the most common ways:
- **Boiling**- requires the immersing of towels, linens, or instruments in water heated to 212 degrees Fahrenheit.
- **Steaming**- requires an airtight chamber in which steam is generated from water by the application of heat.
- **Baking**- A method of sterilization rarely used in beauty shops, but employed in hospitals.
Sterilizing with Chemical Agents
- Liquid Disinfectant Mixing a disinfectant with water and immersing the article in the solution, as specified by your State Board of Cosmetology or Board of Health, is the most practical method of sterilization in salons.
- Fumigation Fumigants in a closed cabinet are used to keep sterilized articles sterile.

Ultraviolet Ray Sanitizers
Ultraviolet Sanitizers are permitted to be used to store implements but only after they have been properly disinfected using a hospital grade disinfectant approved by the EPA; however, ultraviolet ray sanitizers cannot be used to disinfect implements because they are not effective against viruses and therefore do not meet the required standards for disinfecting. As a result, you should never use ultraviolet ray sanitizers intending it to sanitize.

There has been some confusion about ultraviolet ray sanitizers because they are permitted for use to store objects that are already disinfected when the disinfecting was done using a hospital level disinfectant approved by the EPA. Don’t be confused about ultraviolet ray sanitizers; they are not acceptable for anything other than storage. That includes any implements or tools used by body wrappers as well.

Cleaning Metallic Implements
Clean shear blades, wipe razor blades, and clean the prongs of tweezers and ends of clippers. Instruments with a cutting edge should be wiped with hospital level or EPA disinfectant or be immersed in the disinfectant

Sterilizing Metallic Implements
Immerse implements in disinfectant solution for 10 minutes. Caution: In sterilizing razors or shears, dip only the blade into the solution. Remove implements and dry thoroughly with clean towel.

Storing Metallic Implements
Place sterilized implements in dry sterilizer or wrap them in individual envelopes until ready for use. As previously, covered, ultraviolet sanitizers can be used as storage for your implements but they cannot disinfect your tools.

Anything exposed to blood, including skincare treatment debris, must be double-bagged and marked with a biohazard sticker or disposed of according to OSHA standards (separated from other waste and disposed of according to federal, state, and local regulations). Puncture-proof containers should be used for disposal of all sharps. Sharps are any item with a sharp point or edge.

Steam Sterilization
To use steam sterilization in the salon requires special equipment. Follow the manufacturer's instructions for the particular steamer being used.

Sanitation
Sanitation is the application of measures to promote public health and prevent the spread of infectious diseases. Various governmental agencies protect community health by providing for a wholesome food and water supply and the quick disposal of refuse. These steps are only a few of the ways in which the public health is safeguarded.

The State Board of Cosmetology and Board of Health, in each state or locality have formulated sanitary regulations governing beauty shops. Every cosmetologist must be familiar with these regulations in order to obey them.
A person with an infectious disease can be contagious to others. It is for this reason that a cosmetologist having a communicable disease or illness must not be permitted to handle clients. At the same time, clients having a communicable disease or infectious condition also must not be serviced in the salon. Following this practice protects the cosmetologist, the client, and the other clients as well, from exposure. In this way the best interests of everyone will be served.

**Sanitizing Hands**
As a licensed professional dealing with multiple clients per day, it is necessary to sanitize your hands as much as it is your implements, especially in the nail and facial industries.

**Cleaning Agents for Hands**
Cleaning agents assist in the process of removing substances from surfaces. Soaps and detergents are two common cleaning agents that are often confused for one-another, but are composed of very different ingredients and have different cleaning properties.

Soaps are the product of a chemical reaction, formed by vegetable oil reacting with lye, for example, and the addition of chemicals that add a desirable smell or quality to the soap, such as glycerin, to make it milder. While soap does not kill microorganisms, soap and water will help remove them from surfaces.

Detergents are manufactured for the express purpose of cleaning specific substances off specific items, and are created using chemicals that can be very harsh to skin. In contrast to detergents that do not leave a residue or require rinsing, soaps leave a coating or residue on the body; typically one designed to make skin smoother or more attractive.

Soaps also remove less fat from the skin than detergents, which have a drying quality and may strip the skin. Be sure to use the appropriate cleaning agent for the job. Different cleaning and disinfecting agents have many different properties. Always read the ingredients, instructions, and recommendations for use on the item's label.

**Hand washing and Drying —Prevents Infection**
Hand washing is a simple habit — one that requires minimal training and no special equipment. Yet it is one of the best ways to avoid getting sick. This simple habit requires only soap and warm water or an alcohol-based hand sanitizer — a cleanser that does not require water. Do you know the benefits of good hand hygiene and when and how to wash your hands properly?

Hand washing is defined as the vigorous, brief rubbing together of all surfaces of lathered hands, followed by rinsing under a stream of water.

Hand washing suspends microorganisms and mechanically removes them by rinsing with water. The fundamental principle of hand washing is removal, not killing.

The amount of time spent washing hands is important to reduce the transmission of pathogens to other food, water, other people and inanimate objects (fomites), such as doorknobs, hand railings and other frequently touched surfaces. Proper hand hygiene involves the use of soap and warm, running water, rubbing hands vigorously for at least 20 seconds. The use of a nailbrush is not necessary or desired, but close attention should be paid to the nail areas, as well as the area between the fingers.

Wet hands have been known to transfer pathogens much more readily than dry hands or hands not washed at all. The residual moisture determines the level of bacterial and viral transfer following hand washing. Careful hand drying is a critical factor for bacterial transfer to skin, food and environmental surfaces.

The drying times required to reduce the transfer of these pathogens varies with drying methods. Repeated drying of hands with reusable cloth towels should be avoided. Recommended hand drying methods and drying times are outlined below:

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The dangers of not washing your hands

Despite the proven health benefits of hand washing, many people do not practice this habit as often as they should — even after using the bathroom. Throughout the day, you accumulate germs on your hands from a variety of sources, such as direct contact with people, contaminated surfaces, foods, even animals and animal waste.

If you do not wash your hands frequently enough, you can infect yourself with these germs by touching your eyes, nose or mouth. In addition, you can spread these germs to others by touching them or by touching surfaces that they also touch, such as doorknobs.

Infectious diseases commonly spread through hand-to-hand contact include the common cold, flu and infectious diarrhea. While most people will get over a cold, the flu is much more serious. Some people with the flu, particularly older adults and people with chronic medical problems, such as HIV/AIDS, can develop pneumonia. The combination of the flu and pneumonia, in fact, is the seventh leading cause of death among Americans.

Proper hand-washing techniques

Good hand-washing techniques include washing your hands with soap and water or using an alcohol-based hand sanitizer. Antimicrobial wipes or towelettes are just as effective as soap and water in cleaning your hands but are not as good as alcohol-based sanitizers.

Antibacterial soaps have become increasingly popular in recent years. However, these soaps are no more effective at killing germs than are regular soap and water. Using these soaps may lead to the development of bacteria that are resistant to the products' antimicrobial agents — making it even harder to kill these germs in the future.

In general, regular soap is fine. The combination of scrubbing your hands with soap — antibacterial or not — and rinsing them with water loosens and removes bacteria from your hands.

Proper hand washing with soap and water

Before servicing any client, the following process of sanitizing your hands should be followed: First, you must have an antibacterial/hospital recommended cleanser. You must use tepid water with a generous amount of cleanser. Place the cleanser in the palm of your hand and rub vigorously to lather cleanser from inside to outside of hands and fingers.

Once the surfaces of your hands and fingers have been cleansed thoroughly, rub the tips of your fingers and nails in the palm of the opposite hand to enable cleansing of the underside of the nails. Then repeat this same process a second time. Be sure to rinse thoroughly after each process. Dry your hands with a paper towel, and be sure to use a paper towel to turn off the water.

Hand washing Review

• Wet your hands with warm, running water and apply liquid or clean bar soap. Lather well.
• Rub your hands vigorously together for at least 15 seconds.
• Scrub all surfaces, including the backs of your hands, wrists, between your fingers and under your fingernails.
• Rinse well.
• Dry your hands with a clean or disposable towel.
• Use a towel to turn off the faucet.
Proper use of an alcohol-based hand sanitizer
Alcohol-based hand sanitizers — which don't require water — are an excellent alternative to hand washing, particularly when soap and water aren't available. They are actually more effective than soap and water in killing bacteria and viruses that cause disease. Commercially prepared hand sanitizers contain ingredients that help prevent skin dryness. Use only the alcohol-based products.

To use an alcohol-based hand sanitizer:
• Apply about 1/2 tsp of the product to the palm of your hand.
• Rub your hands together, covering all surfaces of your hands, until they are dry.

If your hands are visibly dirty, however, wash with soap and water rather than a sanitizer.

When should you wash your hands?
Although it is impossible to keep your bare hands germ-free, times exist when it is critical to wash your hands to limit the transfer of bacteria, viruses and other microbes.

Always wash your hands:
• After using the bathroom
• After changing a diaper - wash the diaper-wearer's hands
• After touching animals or animal waste
• Before and after preparing food, especially before and immediately after handling raw meat, poultry or fish
• Before eating
• After blowing your nose
• After coughing or sneezing into your hands
• Before and after treating wounds or cuts
• Before and after touching a sick or injured person
• After handling garbage
• Before inserting or removing contact lenses
• When using public restrooms

Standard/Universal Precautions
Although less likely to pose the same degree of risk to exposure than that routinely encountered in a health care facility, the salon is known to have a measurably higher level of risk to exposure from bloodborne pathogens and infectious body fluids, than many other professions. Razors, scissors, neck trimmers, and cuticle nippers, just to name a few, are sharp tools used every day for cutting in the salon and spa environment.

Because of the physical contact with a large numbers of people, the use of sharp cutting tools and the consequential injuries resulting in blood spills, it is imperative that salon professionals learn and practice proper infection control procedures and biohazard practices so they are prepared to safely handle blood spills, and to competently protect against the spread of contaminants, bloodborne pathogens, and subsequent infectious disease.
In order to do this salon professionals use infection control procedures established by the CDC known as Universal Precautions and the newly established counter-part, Standard Precautions. In conjunction with the infection control standards set by the State of Florida approved for salons.

**Universal Precautions**

Universal Precautions are the Center for Disease Control's (CDC) recommendations for handling body fluids and blood in the workplace. The CDC’s position is that all body fluids and blood should be handled as if they were contaminated. "Universal Precautions" is the name used to describe a *prevention strategy* in which all blood and potentially infectious materials are treated as if they are, in fact, infectious, regardless of the perceived status of the source individual. In other words, whether or not you think the blood/body fluid is infected with bloodborne pathogens, you treat it as if it is.

This approach is used in all situations where exposure to blood or potentially infectious materials is possible. This also means that certain engineering and work practice controls shall always be utilized in situations where exposure may occur.

**Standard Precautions**

The relevance of universal precautions to other aspects of disease transmission was recognized, and in 1996, the Centers for Disease Control and Prevention expanded the concept and changed the term to *standard precautions*.

The terms are sometimes used in the same context; a likely cause for this is because OSHA’s Bloodborne pathogen standard retains the term universal precautions. However, under CDC’s definition, “Standard Precautions” integrates and expands the elements of universal precautions into a standard of care designed to protect health-care personnel and patients from pathogens that can be spread by blood or any other body fluid, excretion, or secretion.

*Standard precautions* apply to contact with 1) blood; 2) all body fluids, secretions, and excretions (except sweat), regardless of whether they contain blood; 3) non intact skin; and 4) mucous membranes. Saliva has always been considered a potentially infectious material in dental infection control; thus, no operational difference exists in clinical dental practice between universal precautions and standard precautions.

**Expanded or Transmission-Based Precautions**

Expanded or transmission-based precautions are used to interrupt the potential spread of those diseases that are transmitted by airborne, droplet, or contact transmission such as:

- Tuberculosis
- Influenza
- Chicken pox
- They can be spread by:
  - Sneezing,
  - Coughing
  - Contact

Expanded or transmission-based precautions are categorically precautions that are exclusive to the health care and emergency services industry, as the type illness that transmission-based precautions are intended to apply too are readily contagious and, pose a health risk to the public. Persons suffering with such an illness should isolate themselves to prevent others from becoming sick.

As a salon professional it is impossible to know to what degree a customer may be ill. However, there are sanitation laws that apply to the salon and in general, they require that no services be given by or to any person that is ill when the illness is contagious and can be spread to others through casual contact.
As a salon professional, you will never practice transmission-based precautions since law prohibits services is provided to anyone having those types of illness, because of their potential to spread. If you know that, a customer requesting salon services has an infectious illness you cannot perform the service, it is prohibited by law and is unsafe for you and your customers. Learn how to politely decline, and ask to reschedule the customer for another time.

Sanitation and Sterilization Recommendations
Universal Barrier protection, personal cleanliness, and proper disinfection are the three “precautions” that make up the meaning of “Universal Precautions.” All three methods must be used to be completely effective.

Barrier Protection - Puts a shield between you and your clients.

Personal Cleanliness - Includes washing your hands, keeping your work area clean, etc.

Disinfection - Refers to removing germs from your tools, equipment, and work area.

Hands should be washed before and after client contact, and washed immediately if hands become contaminated with blood or other body fluids. Hands should also be washed after removing gloves.

Gloves should be worn whenever there is a possibility of contact with body fluids. Personal service workers (e.g., hairdressers, barbers, cosmetologists, massage therapists) should wear gloves when waxing, giving manicures/pedicures, facials, tweezing or any other service that could possibly draw blood.

Masks should be worn whenever there is a possibility of splashing or splattering of body fluids.

Both clients and beauty professionals should wear smocks if soiling of clothing or splashing on exposed skin is likely.

To minimize the risks for exchange of body fluids during resuscitation procedures, pocket masks or mechanical ventilation devices should be readily available where these procedures are likely to be needed.

Spills of blood or blood-contaminated body fluids should be cleaned up using a hospital level disinfectant approved by the EPA for use on blood spills.

Beauty professionals, who have open lesions, dermatitis, or other skin irritations, should not participate in direct client contact and services and should never handle contaminated equipment or supplies, such as towels, smocks, capes, or even used cotton strips.

Sharp objects such as shears, razors, nippers, tweezers and needles tend to pose the greatest risk for exposure. Instruments that can penetrate the skin or become contaminated with blood, such as ear-piercing devices; needles used for electrolysis, tattooing, and acupuncture; and razors, cuticle scissors, and tweezers should be sterilized or thrown away after one use.

Use a hospital level disinfectant approved by the EPA to wipe implements with a cutting edge to disinfect contaminated reusable objects, such as shears, etc. The EPA has also listed “Lysol” as a killer of HIV. It can be used right out of the bottle to wipe salon surfaces and floors after they have been treated properly treated with a hospital grade disinfectant.

OSHA Steps In
The number of infected persons in the workplace is staggering, and continues to increase. In answer to the growing problem, OSHA issued a standard regarding bloodborne pathogens. This standard applies to any workplace in which workers face potential exposure to human blood or other body fluids that may carry disease.

- The Bloodborne Pathogens Standard is composed of:
  - A written plan, entitled the Exposure Control Plan,
  - Training requirements and
  - Record keeping guidelines

**Exposure Control Plan**

Each work area where employees may be exposed to blood or body fluids must formulate an Exposure Control Plan. This plan attempts to minimize the risks of infection by bloodborne pathogens.

It covers:

- Identification of employees who are covered by the plan and the tasks where there is a potential for exposure to blood
- Train employees who are at risk
- Specific measures the employer will take to minimize the risk of exposure; these will include:
  - Adhere to "Universal Precautions"
  - Engineering and work practice controls
  - Personal protective equipment
  - Housekeeping issues
  - Hepatitis B vaccine
  - Procedures to follow if there is an exposure

If you are an "affected" employee, that is, if you are working at a place where there is a potential for you to be exposed to human blood or body fluids, check with your employer to determine the employer's responsibilities and make certain that you understand your responsibilities. As a body wrapper it is not likely you would experience a high level of exposure unless other factors were involved. If you choose to offer body wrapping services at a location that frequently offers permanent makeup services or tattoo services, you may want to re-access your exposure level.

**Identifying Dangerous Tasks**

Some tasks are by their nature more apt to involve potential exposure to blood or body fluids. In the salon environment, these may include any tasks requiring the use of sharp implements (needles, razor blades, shears, nippers), tasks working directly with blood (permanent makeup, or tattooing), tasks that require a staff member to handle contaminated waste or trash, or tasks that have someone acting in the role of a first-aid responder. All these, as well as a myriad of other tasks which could result in exposure, would be covered under the Bloodborne Pathogens Standard.

**Minimizing Exposure**

The employer must minimize the exposure of employees to bloodborne pathogens whenever the potential for that exposure exists. OSHA has taken the position that there are no "risk-free" populations, and enforcement of OSHA's "general duty clause" implies that employers must be knowledgeable of and comply with the bloodborne pathogens standard. Risk is minimized through improved engineering design and work practices, through the use of protective equipment as appropriate and by addressing housekeeping issues in the following manner:
Engineering and work practice controls
- Use autoclaves to sterilize all equipment and to treat infectious waste.
- Use puncture resistant, labeled sharps containers for disposal of needles, razor blades, etc.
- Do not break, bend or recap needles - place them directly in the sharps container.
- Do not pick up broken glass with your hands - sweep it up.
- Wash hands immediately after removing gloves and after any hand contact with blood contaminated surfaces.
- Don't keep food or water in areas where blood is worked with.
- Don't eat, drink, smoke or apply make-up in areas where blood is worked with.
- Eliminate splashing of infectious materials when possible.
- Never pipette by mouth!
- Protect open wounds from infectious materials.

Personal protective equipment
- Employers must make available and employees must use personal protective equipment (PPE) when the possibility of exposure to blood or infectious materials exists.
- Employees must be trained in the use of PPE.
- PPE must be accessible and clean.
- Disposable gloves must be replaced as soon as they are torn or punctured.
- Eye protection must be worn if there is a chance for a splash to occur.
- The level of protection required is dependent upon the task at hand.

Housekeeping issues
- Clean up all blood or body fluid spills immediately.
- Clean and decontaminate all surfaces and equipment, which have been in contact with blood thoroughly.
- Contaminated laundry must be handled with extreme caution and contact minimized.

Hepatitis B vaccine
- Must be provided at no cost to at-risk personnel
- 85% to 97% effective

Exposure Response
Earlier, several scenarios were given that could occur in an academic environment. These are considered exposure incidents whenever the eyes, mouth, other mucous membrane or broken skin contacts blood or other infectious materials on the job. If an exposure occurs, arrange for an immediate medical evaluation that includes the following:

Document what happened
- Identify and test the source individual if feasible
- Test the exposed person's blood, if consent is obtained
- Provide counseling
- Evaluate any reported illness
In Case of Exposure do these things:

1. Use appropriate PPE when working with blood or infectious materials.
2. Check it first for damage.
3. Remove PPE carefully to avoid self-contamination.
4. Dispose of contaminated PPE correctly in leak proof containers for disposal or for decontamination.
5. Make sure you have been trained in the use of PPE and it is documented!
6. Use good personal hygiene
7. Wash exposed skin immediately with soap and water.
8. Wash thoroughly after removing PPE.
9. Flush exposed eyes, nose or mouth quickly and thoroughly with water.
10. Cover open cuts.
11. Use good work practices.
13. Clean up spills immediately.
14. Clean and decontaminate all equipment and surfaces in contact with blood or other infectious material.
15. Dispose of sharps in a puncture-proof, labeled container.
16. Know the proper response for accidental exposures.
17. Know the Bloodborne Pathogens Standard so you can respond without fear.

Don't do these things:

1. Don't have unprotected sex, use illicit drugs or share needles.
2. Don't worry about getting one of these diseases through casual contact.
3. Don't eat or drink, or keep food and drinks in areas where infectious materials are used.
4. Never pipette by mouth.
5. Never break, bend or recap contaminated needles.
6. Don't clean up broken glass by hand, use a broom and dustpan.

Emergency Response Guide
Salons that provide chemical and cutting services to the public should anticipate that accidents, which may involve blood, are likely to occur from time to time. Most the time the blood spill is limited to a small area, but occasionally spills can be medium or even large affecting more than immediate area of the client, or salon worker. Most salons have a first-aid kit and fire extinguishers on hand. A well-prepared salon should also have a management system in place for dealing with blood spills.

Spill Kits
A bloodborne pathogens spill kit, or “spill kit” is a combination of items selected for their cleaning and decontamination properties. They are packaged together in a plastic bag or a plastic hard case much like a first-aid kit. A blood spill kit contains all the items needed to properly handle a blood spill of medium to large size. Spill kits are kept on hand, in anticipation of an accident where it can be quickly accessed so that exposure to blood and body fluids can be minimized and controlled.
When you go to work in a salon it’s always a good idea to find out where the first-aid kit, the fire extinguishers, and the blood spill kit are located. If you choose to offer services in an alternate location it is less likely that you will encounter a blood spill but because accidents do happen it is still a good safety conscious idea to have these items on hand.

Complete Bloodborne Pathogen Protection Spill Kit

Bodily Fluid and Bloodborne Pathogen Spill Kits have all the essentials for cleanup, removal and disposal of bodily fluid and potentially infectious blood spills. Spill kits can be purchased or you can gather the items and make your own. Keep in mind that anytime a spill kit is used single-use items in the spills kit should be replaced after each use of the spills kit.

Spill Kits should contain a germicidal solidifier powder

Spill kits come with a powder product that is used to sprinkle on the spill. The type of powder included can vary depending on the supplier of the kit. In some spill kits the powder has disinfectant properties that kill any dangerous pathogens in the blood or fluid. While in other spill kits the product contains a granular substance that works only as an absorbent material; it solidify body fluids such as blood serum, vomitus, etc. so it can be scooped up and removed, but doesn’t have any germicidal properties.

And then there is a third type that is found in other kits which combines these two properties solidifying and neutralizing biohazards and infectious wastes in one step - cleanup is fast and the resulting waste material is safe for disposal. It is important that you read the instructions so you will know which type came in the kit.

When using a spill kit to clean and decontaminate an area that had a medium size blood spill you need to know which kind or powder or granular product that came in the spill kit. If the spill kit contains a product intended only to absorb the blood or body fluid, then once it is removed and the area is cleaned it is necessary for that area to be disinfected with the appropriate level disinfectant.

It is a good idea to check that the spill kit in your salon contains all of the necessary tools to protect you. If a spill kit has been used previously and the disposable items have not been replaced it becomes ineffective as an exposure control device.

Also some companies that supply these kits offer kits that have incomplete Personal Protective Equipment and inadequate tools for cleanup. In order to comply with Standard Precautions, and help protect employees from ALL body fluids during cleanup:

Face protection must be worn if there is a chance the person could splash or “flick” material into his eyes, nose or mouth during spill cleanup. This should also help protect from aerosols potentially created during the cleaning process.

① Skin must be protected.

② Employee work clothes must be protected as well from contamination

③ If material could splatter or flick up into the face, it could also land on an employee’s clothing.

Also, remember, hepatitis B can live in dried blood for 7 days – even on someone’s clothing or on their shoes that are worn home.

Antiseptic cleaning wipes, biohazard bags, cleanup towels, gown, eye shield, latex gloves, scooper/scaper, shoe covers, extra bags and guide.

Spills Kits should contain the following items:

① A large (10 L) reusable plastic container or bucket with fitted lid, containing the following items

② Appropriate leak proof bags and containers for disposal of waste material
COURSE UNIT 3 - SANITATION, STERILIZATION, AND INFECTION CONTROL FOR THE FLORIDA BODY WRAPER

A designated, sturdy scraper and pan for spills (similar to a ‘pooper scooper’)

About five sachets of a granular formulation containing 10,000 ppm available chlorine or equivalent
(each sachet should contain sufficient granules to cover a 10-cm diameter spill)

Disposable rubber gloves suitable for cleaning (vinyl gloves are not recommended for handling blood)

Eye protection (disposable or reusable)

A plastic apron, or smock

A respiratory protection device for protection against inhalation of powder from the disinfectant
granules, or aerosols, which may be generated from high-risk spills during the cleaning process.

Exposure Control Plan
An exposure control plan should be included in procedural manuals and emphasized in ongoing
education or training programs. The basic principles of blood spills management are:

Standard precautions apply, including use of personal protective equipment (PPE) as applicable

Spills should be cleared up before the area is cleaned (adding cleaning liquids to spills increases the size
of the spill and should be avoided)

Generation of aerosols from spilled material should be avoided. Don’t do anything to make it spread or to
make it fly into the air. You should avoid splashing, spraying, splattering, and generation of droplets
when performing any procedures involving blood or potentially infectious materials.

The Occupational Safety and Health Administration states that the personal protective equipment (PPE)
chosen should be based upon the type of exposure and quantity of these substances reasonably
anticipated to be encountered during the performance of a task or procedure. The employer must evaluate
the task and type of exposure expected and, based on the determination, select the appropriate personal
protective clothing.” Since non-healthcare businesses do not perform the tasks that cause the spill or
contamination, it is impossible to anticipate the volume or degree of a spill before it happens. How could
anyone predict that a customer would vomit completely into the toilet, or all over the floor? For this
reason, one should maintain a spill kit that contains the items that would prepare any salon professional
to be protected regardless of spill volume or degree. If, for example, shoe covers are needed, and not
included in the kit, it’s too late once the contamination occurs. For this reason the spill kit and its content
needs to anticipate a medium to large size spill to work effectively should one occur. The idea is being
prepared for either size spill in advance.

Small and Large Indoor Spills
The first thing you want to do when there is a blood spill is assess the size and severity of the spill. If the
spill is a small one it can be handled differently than if it is large. Spots or drops of blood or other small
spills (up to 10cms) can easily be managed by wiping the area immediately with paper toweling and then
cleaning with warm water and detergent followed by rinsing and drying the area. Dry the area as wet
areas attract contaminants. A hospital grade disinfectant can be used on the spill area after cleaning.

Small Spill Disinfection
1. Stop service and clean injured area.
2. Use finger guard or gloves as needed.
3. Apply antiseptic and/or liquid or spray styptic. Don’t contaminate container.
4. Cover injury with Band-Aid or other appropriate dressing.
5. Clean client and workstation.
6. Dispose of all disposable contaminated objects such as wipes or cotton balls by double bagging. Use biohazard sticker. Deposit sharp disposables in a box.
7. Wash hands with soap and warm water.
8. Disinfect all tools contaminated with blood or body fluids by complete immersion in an EPA-registered disinfectant that kills HIV-1 and Hepatitis B or in a tuberculocidal disinfectant.

OSHA HAZARD COMMUNICATION TRAINING
Before you ever take on the responsibility to clean up a medium to large blood spill make sure you have been trained in the use of PPE and it is documented. If you have not been properly trained or even it you have but you do not feel confident you should not take on the responsibility. We cover the process in this section but the information given here is not a substitute for proper OSHA Hazards Communication training. It is for general knowledge and understanding of blood spill procedure.

Medium to Large Blood Spill Procedure
Large blood spills that have occurred in ‘dry’ areas should be contained and generation of aerosols should be avoided. Do not do anything that will cause the blood to be whisked into the air, for example, don't sweep it with a broom. Spills should be cleared up before the area is cleaned up (adding cleaning liquids to spills increases the size of the spill and should be avoided).

① Alert others in the area of the spill and ask that they exercise caution.
② Secure the area by having others move away from the spill. Have someone stand watch so no one tracks through. Normal clothing that becomes contaminated with blood should be removed as soon as possible because fluids can seep through the cloth to come into contact with skin. Contaminated laundry should be handled as little as possible, and it should be placed in an appropriately labeled bag or container until it is decontaminated, disposed of, or laundered. After removing contaminated clothing, wash any exposed skin.
③ To protect yourself, it is essential to have a barrier between you and the potentially infectious material. When cleaning up a blood spill always use Personal Protective Equipment. Wear gloves, lab coat or smock, and face protection. In some blood spill kits goggles and masks are included with the smock and powdered disinfectant.
④ Cover spill with paper towels and pour disinfectant, contained in emergency blood spill pack, around and over the spill.
⑤ Allow the powdered disinfectant suitable contact time according to the instructions, generally around 20 minutes.
⑥ If necessary pick up sharp items, e.g., broken glass or needles, with forceps or dustpan and brush and place in a sharps container.
⑦ Discard disposable materials used to clean up the spill in a bio waste bag and properly secure the bag.
⑧ Disinfect any non-disposable materials used with a high level disinfectant.
⑨ Wipe the surrounding area and the spill area again with an EPA-registered disinfectant that kills HIV-1 and Hepatitis B or in a tuberculocidal disinfectant.
⑩ Disinfect or autoclave any non-disposable materials used.
⑪ Never use an item that has been in contact with blood or body fluid until that item has been sterilized.
Disinfection of implements is sufficient with normal use; when implements have been in contact with blood or body fluid high level disinfecting is required.

**HANDLING DISPOSABLES**
- Place in closed container.
- If in contact with blood, double-bag and mark with biohazard sticker.
- Use puncture-proof containers for sharp instruments.

**THE PROFESSIONAL IMAGE**
Salon guidelines are:
1. Sweep floors after each client.
2. Deposit waste in self-closing receptacle.
4. Control dust.
5. Keep windows, screens, curtains clean.
6. Clean fans, vents, and humidifiers regularly.
7. Keep work areas well lit.
8. Keep rest rooms clean and tidy.
9. Provide toilet tissue, paper towels, and pump-type liquid soap.
10. Clean sinks and water fountain regularly.
11. Provide disposable drinking cups.
12. Keep salon free of insects and rodents.
13. Never use salon for cooking or living quarters.
15. Keep service areas free of food, drink, and smoking.
16. Empty waste receptacles daily.
17. Wear freshly laundered clothing.
18. Properly mark containers.
20. Don’t place tools in mouth or pockets.
21. Clean and disinfect all tools and implements after each use and store properly.
22. Avoid touching face, mouth, or eyes during services.
23. No pets or animals allowed except for trained service animals.
24. Disinfect all work surfaces, including neck of shampoo bowl, between client services.
25. Use only freshly laundered linens or new disposable linens on clients. Use neck strips. Add bleach when washing linens.
26. Monitor air quality in salon.
Ventilation
The air within a salon must be circulated and should have some degree of humidity and should not be dry nor should it be stagnant. The room temperature should remain approximately 70 degrees Fahrenheit. Salons may utilize fans, air conditioners, and exhaust fans or devices. The use of this type of equipment provides an increased quality, as well as an increased quantity of air in the salon. Air circulation and filtering can help keep odors down.

The Salons Drinking Water
The water supplied in the salon and intended for consumption must be odorless, colorless and free from any foreign matter. Crystal clear water may still be unsanitary because of the presence of pathogenic bacteria, which cannot be seen with the naked eye.

MORE FROM OSHA
Protecting Worker Health: Formaldehyde Levels Found in Hair Salons
OSHA recognized formaldehyde as a potential occupational carcinogen in 1981, OSHA has since and more recently found that some hair smoothing products contain formaldehyde and may release formaldehyde at levels above OSHA’s permissible limits during use. Some of these products have been labeled as “formaldehyde-free.”

An exposure simulation study was conducted to characterize potential formaldehyde exposures of salon workers and clients during keratin hair smoothing treatments. Four different hair treatment brands were used in the study.

The results of this study show that professional hair smoothing treatments—even those labeled “formaldehyde-free”—have the potential to produce formaldehyde concentrations that meet or exceed current occupational exposure limits.

This has become a growing problem in many modern salons. In response to these findings OSHA has posted a web site for hair salons that provides extensive information on these findings as well as procedures that should be followed by salon owners to protect the workers.

The HAIR SALON Web site discuss the various products that formaldehyde is used in and lists the name of the companies that uses this chemical in their products. The salons that these products are used most in are salons that do chemical hair straightening services. As a body wrapper you will not be using these products, however the problem is airborne. The chemicals are released in the air as part of the straightening process and once the chemicals are in the air it is a concern to anyone breathing that air.

Salon owners and other employers (e.g., beauty schools) must comply with OSHA’s formaldehyde and hazard communication standards if they choose to use products that contain or may release formaldehyde. The best way to control formaldehyde exposure is for the products used to be listed on the Formaldehyde in Your Products page on the OSHA HAIR SALON Web site in the ingredients on their label.

If products containing these substances are being used, salon owners must follow the requirements of OSHA’s Formaldehyde standard:

Test the air in your salon during product use to determine if workers may be exposed to formaldehyde levels at or above OSHA’s limits. Salon owners must also notify workers of the air testing results. If you work in a salon and you know that product that contain formaldehyde are being used, you could be at risk. In one salon, formaldehyde levels during the blow-drying phase of treatment were measured at five times the OSHA short term exposure limit or STEL.

The Food and Drug Administration has sent a warning letter to the manufacture of several companies that use formaldehyde in their hair straightening products letting them know that they cannot offer the
product in the same manner as they have previously. They were warned to correct the information on the label of the products.

As you recall in our earlier discussion about MSDS sheets the information about a product will be included on the MSDS sheet. MSDS sheets are required to be on the salon premises in an organized binder for every product and chemical used there. You should take a look at these sheets when you work in any salon, you should read and understand the information on a product's label and MSDS.

Every salon should have a first-aid kit, make sure the workplace has eye and skin washing equipment in the eye kit if you work near anyone that provides chemical services. As a body wrapper you choose where you offer your services, but as a businessperson sometimes that may take you were the clients are most available, and that could be a salon that offers chemical services.

Failure to follow OSHA regulations regarding formaldehyde and hazard communication can result in citations and fines.

Protect Yourself!
If you are working in a salon where products containing Formaldehyde are used you should take the following steps to protect yourself:

1. Use available ventilation systems, such as fans and/or windows.
2. Know the location of eye washing, skin washing, and other first aid equipment in your workplace.
3. Learn the hazards of the products you may be breathing in.
4. Alert your employer and get medical attention if you develop symptoms of formaldehyde exposure, or if you know you've been exposed directly to large amounts of formaldehyde (such as during a spill).

For more information on chemicals in salon products visit the OSHA HAIR SALONS Web pages. It is a good source of information about chemicals that you may encounter while working in a salon. OSHA’s HAIR SALONS Web pages can be accessed at: http://www.osha.gov/SLTC/hairsalons/index.html

Florida Administrative Code - Salon Rules
The salon must be well-lighted, heated, and ventilated, in order to keep the salon in a clean and sanitary condition. The walls, curtains, and the floor coverings in all work booths must be washable and kept clean.

All salons must be supplied with running hot and cold water. All plumbing fixtures should be sufficient in number and properly installed.

The premises should be kept free from rodents, vermin, flies or other similar insects through cleanliness, use of screens, and an exterminator.

All hair, cotton, or other waste material must be removed from the floor without delay, and deposited in a closed container.

Waste material should be removed from the premises at frequent intervals. Objects dropped on the floor are not to be used until sterilized.

Hairpins must not be placed in the mouth, combs must not be carried in the pockets of uniforms, and hairnets must not be carried in cuffs or pockets of the uniform.

When giving a manicure, provide finger bowls with individual paper cups for each client. Headrest coverings and neck strips must be changed for each client.

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Body Wrap Specialist
Clearly the salon requirement rules cover every aspect of the salon and each of the possible services that are offered there. As a body wrapper not all of these rules directly affect your practice but no man is an island. If you work in a salon what goes on in that salon does affect you and your clients particularly when it comes to sanitation and infection control. If the people in the salon where you are working are doing what they are required to do it is good to know, and if the people in the salon are not doing what they are required to be doing it is extremely important to know. For you and your clients to be safe everyone must be following the Florida Administrative Code Salon Rules. The most recent edition of these rules are as follows:

**Florida Administrative Code**
**61G5-COSMETOLOGY**
**61G5-20.002 Salon Requirements**

1. Ventilation and Cleanliness: Each salon shall be kept well ventilated. The walls, ceilings, furniture and equipment shall be kept clean and free from dust. Hair must not be allowed to accumulate on the floor of the salon. Hair must be deposited in a closed container. Each salon which provides services for the extending or sculpturing of nails shall provide such services in a separate area which is adequately ventilated for the safe dispersion of all fumes resulting from the services.

2. Toilet and Lavatory Facilities: Each salon shall provide – on the premises or in the same building as, and within 300 feet of, the salon – adequate toilet and lavatory facilities. To be adequate, such facilities shall have at least one toilet and one sink with running water. Such facilities shall be equipped with toilet tissue, soap dispenser with soap or other hand cleaning material, sanitary towels or other hand-drying device such as a wall-mounted electric blow dryer, and waste receptacle. Such facilities and all of the foregoing fixtures and components shall be kept clean, in good repair, well-lighted, and adequately ventilated to remove objectionable odors.

3. A salon, or specialty salon may be located at a place of residence. Salon facilities must be separated from the living quarters by a permanent wall construction. A separate entrance shall be provided to allow entry to the salon other than from the living quarters. Toilet and lavatory facilities shall comply with subparagraph (c)2. above and shall have an entrance from the salon other than the living quarters.

4. Animals: No animals or pets shall be allowed in a salon, with the exception of fish kept in closed aquariums, or trained animals to assist the hearing impaired, visually impaired, or the physically disabled.

5. Shampoo Bowls: Each salon shall have shampoo bowls equipped with hot and cold running water. The shampoo bowls shall be located in the area where cosmetology services are being performed. A specialty salon that exclusively provides specialty services, as defined in Section 477.013(6), F.S., need not have a shampoo bowl, but must have a sink or lavatory equipped with hot and cold running water on the premises of the salon.

(d) Comply with all local building and fire codes. These requirements shall continue in full force and effect for the life of the salon.

(2) Each salon shall comply with the following:

(a) Linens: Each salon shall keep clean linens in a closed, dustproof cabinet. All soiled linens must be kept in a closed receptacle. Soiled linens may be kept in open containers if entirely separated from the area in which cosmetology services are rendered to the public. A sanitary towel or neck strip shall be placed around the patron’s neck to avoid direct contact of the shampoo cape with a patron’s skin.
(b) Containers: Salons must use containers for waving lotions and other preparations of such type as will prevent contamination of the unused portion. All creams shall be removed from containers by spatulas.

(c) Sterilization and Disinfection: The use of a brush, comb or other article on more than one patron without being disinfected is prohibited. Each salon is required to have sufficient combs, brushes, and implements to allow for adequate disinfecting practices. Combs or other instruments shall not be carried in pockets.

(d) Sanitizers: All salons shall be equipped with and utilize wet sanitizers with hospital level disinfectant or EPA approved disinfectant, sufficient to allow for disinfecting practices.

1. A wet sanitizer is any receptacle containing a disinfectant solution and large enough to allow for a complete immersion of the articles. A cover shall be provided.

2. Disinfecting methods which are effective and approved for salons: First, clean articles with soap and water, completely immerse in a chemical solution that is hospital level or EPA approved disinfectant as follows:
   a. Combs and brushes, remove hair first and immerse in hospital level or EPA approved disinfectant;
   b. Metallic instrument, immerse in hospital level for EPA approved disinfectant;
   c. Instruments with cutting edge, wipe with a hospital level or EPA approved disinfectant; or
   d. Implements may be immersed in a hospital level or EPA approved disinfectant solution.

3. For purposes of this rule, a “hospital level disinfectant or EPA approved disinfectant” shall mean the following:
   a. For all combs, brushes, metallic instruments, instruments with a cutting edge, and implements that have not come into contact with blood or body fluids, a disinfectant that indicates on its label that it has been registered with the EPA as a hospital grade bacterial, virucidal and fungicidal disinfectant;
   b. For all combs, brushes, metallic instruments with a cutting edge, and implements that have come into contact with blood or body fluids, a disinfectant that indicates on its label that it has been registered with the EPA as a tuberculocidal disinfectant, in accordance with 29 C.F.R. 1910.1030.

4. All disinfectants shall be mixed and used according to the manufacturer’s directions.
   e) After cleaning and disinfecting, articles shall be stored in a clean, closed cabinet or container until used. Undisinfected articles such as pens, pencils, money, paper, mail, etc., shall not be kept in the same container or cabinet. For the purpose of recharging, rechargeable clippers may be stored in an area other than in a closed cabinet or container, provided such area is clean and provided the cutting edges of such clippers have been disinfected.

(f) Ultra Violet Irradiation may be used to store articles and instruments after they have been cleansed and disinfected.

(g) edicure Equipment Sterilization and Disinfection:
The following cleaning and disinfection procedures must be used for any pedicure equipment that holds water, including sinks, bowls, basins, pipe-less spas, and whirlpool spas:

1. After each client, all pedicure units must be cleaned with a low-foaming soap or detergent with water to remove all visible debris, then disinfected with an EPA registered hospital grade bacterial, fungicidal, virucidal, and pseudomonacidal disinfectant used according to manufacturer’s instructions for at least ten (10) minutes. If the pipe-free foot spa has a foot plate, it should be removed and the area beneath it cleaned, rinsed, and wiped dry.

2. At the end of each day of use, the following procedures shall be used:
   a. All filter screens in whirlpool pedicure spas or basins for all types of foot spas must be sanitized. All visible debris in the screen and the inlet must be removed and cleaned with a low-foaming soap or detergent and water. For pipe-free systems, the jet components or foot plate must be removed and

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cleaned and any debris removed. The screen, jet, or foot plate must be completely immersed in an EPA registered, hospital grade bactericidal, fungicidal, virucidal, and pseudomonacidal disinfectant that is used according to manufacturer’s instructions. The screen, jet, or foot plate must be replaced after disinfection is completed and the system is flushed with warm water and low-foaming soap for 5 minutes, rinsed, and drained.

b. After the above procedures are completed, the basin should be filled with clean water and the correct amount of EPA registered disinfectant. The solution must be circulated through foot spa system for 10 minutes and the unit then turned off. The solution should remain in the basin for at least 6 to 10 hours. Before using the equipment again, the basin system must be drained and flushed with clean water.

3. Once each week, subsequent to completing the required end-of-day cleaning procedures, the basin must be filled with a solution of water containing one teaspoon of 5.25% bleach for each gallon of water. The solution must be circulated through the spa system for 5 to 10 minutes and then the solution must sit in the basin for at least 6 hours. Before use, the system must be drained and flushed.

4. A record or log book containing the dates and times of all pedicure cleaning and disinfection procedures must be documented and kept in the pedicure area by the salon and made available for review upon request by a consumer or a Department inspector.

(3) No cosmetology or specialty salon shall be operated in the same licensed space allocation with any other business which adversely affects the sanitation of the salon, or in the same licensed space allocation with a school teaching cosmetology or a specialty licensed under Chapter 477, F.S., or in any other location, space, or environment which adversely affects the sanitation of the salon. In order to control the required space and maintain proper sanitation, where a salon adjoins such other business or school, or such other location, space or environment, there must be permanent walls separating the salon from the other business, school, location, space, or environment and there must be separate and distinctly marked entrances for each.

(4) Evidence that the full salon contains a minimum of 200 square feet of floor space. No more than two
(2) Cosmetologists or specialists may be employed in a salon which has only the minimum floor space.

(5) A specialty salon offering only one of the regulated specialties shall evidence a minimum of 100 square feet used in the performance of the specialty service and shall meet all the sanitation requirements stated in this section. No more than one specialist or cosmetologist may be employed in a specialty salon with only the minimum floor space. An additional 50 square feet will be required for each additional specialist or cosmetologist employed.

(6) For purposes of this rule, “permanent wall” means a vertical continuous structure of wood, plaster, masonry, or other similar building material, which is physically connected to a salon’s floor and ceiling, and which serves to delineate and protect the salon.
UNIT 3
Sanitation, Sterilization, and Infection Control
SECTION REVIEW

19. Salon professionals working in a salon are exposed to possible toxic chemicals every day.
   TRUE     FALSE

20. Air circulation and filtering can help keep odors down.
   TRUE     FALSE

21. It is a good idea to keep the MSDS sheet in a book that can be easily located.
   TRUE     FALSE

22. The body wrapper is ultimately responsible for providing safe wrapping services to their clients.
   TRUE     FALSE

23. Sterilization is the process of destroying all bacteria.
   TRUE     FALSE

24. It is required by law to use sanitary towels with each client to avoid spreading infectious material.
   TRUE     FALSE

25. It is required by law to use an EPA registered hospital grade disinfectant to sanitize your tools between clients.
   TRUE     FALSE

26. The “active stage” is when bacteria grow and reproduce.
   TRUE     FALSE

27. Universal Precautions is the name used to describe an infection control strategy in which all blood should be treated as if contaminated and could spread disease.
   TRUE     FALSE
UNIT 4

Laws and Rules for the Florida Body Wraper
(One Credit Hour)

Unit Learning Objectives
- To define the limitations of the authority of the Board of Cosmetology;
- To define the rulemaking authority of the Board of Cosmetology;
- To understand the qualifications for licensure;
- To understand the procedures and context of examinations;
- To comprehend the requirements for cosmetology salons and inspections;
- To be aware of the disciplinary proceedings and penalties for violations of Chapter 477, F.S.;
- To understand the complaint procedures for violations of Chapter 477, F.S., or the rules promulgated pursuant thereto;
- To understand the requirements through rules and regulations for license renewal; and
- To know the fees and their disposition.

INTRODUCTION
The purpose of this training material is to present the participant with an overview of the cosmetology laws and rules and regulations in relation to consumer protection for both health and economic matters. In this unit we take a look at the laws that govern the body wrapping registration as part of the Florida cosmetology industry. The purpose of this unit is to let participants know what laws and rules they will be held accountable to follow, so they can comfortably and confidently practice within the administrative guidelines. Your goal in completing this course unit is to learn the rules so you can follow them, thereby protecting the clients, coworkers, and themselves in a safe and professional manner while also avoiding expensive penalties and fines.

The areas of Florida law featured in this course unit are taken from two main divisions of Florida law. The two divisions of law are the Florida Statutes and the Florida Administrative Code. Of those two divisions this unit includes the following chapters:

A. Selected laws from the 2011 FLORIDA STATUES
   1. 2011 Florida Statutes Chapter 455 Business and Professional Regulation: General Provisions
   2. 2011 Florida Statutes Chapter 477 Cosmetology

B. Selected rules from the FLORIDA ADMINISTRATIVE CODE
   1. Florida Administrative Code Chapter 61G-5 Cosmetology
   2. Florida Administrative Code Chapter 61 Departmental.

Several areas of law govern the practice of body wrappers as a specialty registration in the State of Florida. The areas featured in this course have been carefully selected to meet the requirements set forth in: Rule 61G5-31.004 Hair Braiding and Hair wrapping Course Requirements, subsection (3) body wrapping registration course requirements, in which is described the mandatory subject matter for body wrapping registration education curricula as prescribed by Florida law. The rules and laws covered in this unit, in compliance with Rule 61G5-31.004 (3) area those related to the following subject areas:
   1. The laws and rules of the Board of Cosmetology that protect the health, safety, and welfare of the consumer;
2. The laws and rules of the Board of Cosmetology that determine where and when an individual may legally practice body wrapping;
3. The function of the Board of Cosmetology, how its members are appointed, and their duties;
4. The laws and rules of the Board of Cosmetology which specify prohibited conduct, and the penalties for failure to follow the laws and rules, and
5. The dates, fees, and requirements for renewal of a body wrapping registration.

The sections of law taken from the Florida Statutes are from the most recent version at the time the course was under development. Sections of law selected from the Florida Administrative Code the most current.

The sections of law that have been selected in the development of this course pertain to body wrappers either directly or indirectly as in some cases a clear line of division cannot be drawn because the rules apply to more than one license type. And many of the rules covered here refer to all persons holding a license regulated under the board of cosmetology while some refer specifically to body wrappers. The Specific Authority, Law Implemented, and History information for the laws listed have been omitted from the text but can be viewed online on the state website where the laws are posted. The link to these resources are: https://www.flrules.org/gateway/organization.asp?divid=275 and http://www.leg.state.fl.us/statutes/

INDEX OF RULES AND LAWS COVERED IN THIS TRAINING UNIT ARE AS FOLLOWS:

A. Selected FLORIDA STATUTES

1. 2011 Florida Statutes CHAPTER 455: BUSINESS AND PROFESSIONAL REGULATION
   GENERAL PROVISIONS
   455.2123 Continuing education.
   455.2177 Monitoring of compliance with continuing education requirements.
   455.2228 (1) Barbers and cosmetologists; instruction on HIV and AIDS.
   455.2235 Mediation
   455.224 Authority to issue citations
   455.227 Grounds for discipline; penalties; enforcement
   455.2273 Disciplinary guidelines
   455.2274 Criminal proceedings against licensees; appearances by department representatives

2. 2011 Professional Regulation and Chapter 477 Cosmetology
   477.0132 Hair braiding, hair wrapping, and body wrapping registration
   477.015 Board of Cosmetology
   477.16 Rulemaking.
   477.18 Investigative services
   477.28 Disciplinary proceedings
   477.29 Penalty

B. Selected FLORIDA ADMINISTRATIVE CODE

1. Florida Administrative Code Chapter 61G-5 Cosmetology
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A. Selected FLORIDA STATUTES

1. 2011 Florida Statutes CHAPTER 455: BUSINESS AND PROFESSIONAL REGULATION GENERAL PROVISIONS

455.2123  Continuing education.—A board, or the department when there is no board, may provide by rule that distance learning may be used to satisfy continuing education requirements. A board, or the department when there is no board, shall approve distance learning courses as an alternative to classroom courses to satisfy continuing education requirements provided for in part VIII, part XV, or part XVI of chapter 468 or part I or part II of chapter 475 and may not require centralized examinations for completion of continuing education requirements for the professions licensed under part VIII, part XV, or part XVI of chapter 468 or part I or part II of chapter 475.

455.2177  Monitoring of compliance with continuing education requirements.—(1) The department shall establish a system to monitor licensee compliance with applicable continuing education requirements and to determine each licensee’s continuing education status. As used in this section, the term “monitor” means the act of determining, for each licensee, whether the licensee was in full compliance with applicable continuing education requirements as of the time of the licensee’s license renewal.

(2) The department may refuse renewal of a licensee’s license until the licensee has satisfied all applicable continuing education requirements. This subsection does not preclude the department or boards from imposing additional penalties pursuant to the applicable practice act or rules adopted pursuant thereto.

(3) The department may waive the continuing education monitoring requirements of this section for any profession that demonstrates to the department that the monitoring system places an undue burden on the profession. The department shall waive the continuing education monitoring requirements of this section for any profession that has a program in place which measures compliance with continuing education requirements through statistical sampling techniques or other methods and can indicate that at least 95 percent of its licensees are in compliance.

(4) The department may adopt rules under ss. 120.53(1) and 120.54 to implement this section.

455.2228  Barbers and cosmetologists; instruction on HIV and AIDS.—(1) The board, or the department where there is no board, shall require each person licensed or certified under chapter 476 or chapter 477 to complete a continuing educational course approved by the board, or the department where there is no board, on human immunodeficiency virus and acquired immune deficiency syndrome as part of biennial relicensure or recertification. The course shall consist of education on modes of transmission, infection control procedures, clinical management, and prevention of human immunodeficiency virus and acquired immune deficiency syndrome, with an emphasis on appropriate behavior and attitude change.

455.2235  Mediation.—(1) Notwithstanding the provisions of s. 455.225, the board, or the department when there is no board, shall adopt rules to designate which violations of the applicable professional practice act are appropriate for mediation. The board, or the department when there is no board, may designate as mediation offenses those complaints where harm caused by the licensee is economic in nature or can be remedied by the licensee.
COURSE UNIT 4 - Laws and Rules for the Florida Body Wraper

(2) After the department determines a complaint is legally sufficient and the alleged violations are defined as mediation offenses, the department or any agent of the department may conduct informal mediation to resolve the complaint. If the complainant and the subject of the complaint agree to a resolution of a complaint within 14 days after contact by the mediator, the mediator shall notify the department of the terms of the resolution. The department or board shall take no further action unless the complainant and the subject each fail to record with the department an acknowledgment of satisfaction of the terms of mediation within 60 days of the mediator’s notification to the department. In the event the complainant and subject fail to reach settlement terms or to record the required acknowledgment, the department shall process the complaint according to the provisions of s. 455.225.

(3) Conduct or statements made during mediation are inadmissible in any proceeding pursuant to s. 455.225. Further, any information relating to the mediation of a case shall be subject to the confidentiality provisions of s. 455.225.

(4) No licensee shall go through the mediation process more than three times without approval of the department. The department may consider the subject and dates of the earlier complaints in rendering its decision. Such decision shall not be considered a final agency action for purposes of chapter 120.

(5) If any board fails to adopt rules designating which violations are appropriate for resolution by mediation by January 1, 1995, the department shall have exclusive authority to, and shall, adopt rules to designate the violations which are appropriate for mediation. Any board created on or after January 1, 1995, shall have 6 months to adopt rules designating which violations are appropriate for mediation, after which time the department shall have exclusive authority to adopt rules pursuant to this section. A board shall have continuing authority to amend its rules adopted pursuant to this section.

455.224 Authority to issue citations.—(1) notwithstanding s. 455.225, the board or the department shall adopt rules to permit the issuance of citations. The citation shall be issued to the subject and shall contain the subject’s name and address, the subject’s license number if applicable, a brief factual statement, the sections of the law allegedly violated, and the penalty imposed. The citation must clearly state that the subject may choose, in lieu of accepting the citation, to follow the procedure under s. 455.225. If the subject disputes the matter in the citation, the procedures set forth in s. 455.225 must be followed. However, if the subject does not dispute the matter in the citation with the department within 30 days after the citation is served, the citation becomes a final order and constitutes discipline. The penalty shall be a fine or other conditions as established by rule.

(2) The board, or the department when there is no board, shall adopt rules designating violations for which a citation may be issued. Such rules shall designate as citation violations those violations for which there is no substantial threat to the public health, safety, and welfare.

(3) The department shall be entitled to recover the costs of investigation, in addition to any penalty provided according to board or department rule, as part of the penalty levied pursuant to the citation.

(4) A citation must be issued within 6 months after the filing of the complaint that is the basis for the citation.

(5) Service of a citation may be made by personal service or certified mail, restricted delivery, to the subject at the subject’s last known address.

(6) Within its jurisdiction, the department has exclusive authority to, and shall adopt rules to, designate those violations for which the licensee is subject to the issuance of a citation and designate the penalties for those violations if any board fails to incorporate this section into rules by January 1, 1992. A board created on or after January 1, 1992, has 6 months in which to enact rules designating violations and penalties appropriate for citation offenses. Failure to enact such rules gives the department exclusive authority to adopt rules as required for implementing this section. A board has continuous authority to amend its rules adopted pursuant to this section.

455.2273 Disciplinary guidelines.—(1) Each board, or the department when there is no board, shall adopt, by rule, and periodically review the disciplinary guidelines applicable to each ground for disciplinary action which may be imposed by the board, or the department when there is no board, pursuant to this chapter, the respective practice acts, and any rule of the board or department.

(2) The disciplinary guidelines shall specify a meaningful range of designated penalties based upon the severity and repetition of specific offenses, it being the legislative intent that minor violations be distinguished from those which endanger the public health, safety, or welfare; that such guidelines provide reasonable and meaningful notice to the public of likely penalties which may be imposed for proscribed conduct; and that such penalties be consistently applied by the board.

(3) A specific finding of mitigating or aggravating circumstances shall allow the board to impose a penalty other than that provided for in such guidelines. If applicable, the board, or the department when there is no board, shall adopt by rule disciplinary guidelines to designate possible mitigating and aggravating circumstances and the variation and range of penalties permitted for such circumstances.
COURSE UNIT 4 - Laws and Rules for the Florida Body Wraper

(4) The department must review such disciplinary guidelines for compliance with the legislative intent as set forth herein to determine whether the guidelines establish a meaningful range of penalties and may also challenge such rules pursuant to s. 120.56.

(5) The administrative law judge, in recommending penalties in any recommended order, must follow the penalty guidelines established by the board or department and must state in writing the mitigating or aggravating circumstances upon which the recommended penalty is based.

(6) Notwithstanding s. 455.017, this section applies to disciplinary guidelines adopted by all boards or divisions within the department.

455.2274 Criminal proceedings against licensees; appearances by department representatives.—A representative of the department may voluntarily appear in a criminal proceeding brought against a person licensed by the department to practice a profession regulated by the state. The department’s representative is authorized to furnish pertinent information, make recommendations regarding specific conditions of probation, and provide other assistance to the court necessary to promote justice or protect the public. The court may order a representative of the department to appear in a criminal proceeding if the crime charged is substantially related to the qualifications, functions, or duties of a license regulated by the department.

A. Selected FLORIDA STATUTES

2. 2011 FLORIDA STATUTES Chapter 477 Cosmetology

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2011 FLORIDA STATUTES CHAPTER 477: COSMETOLOGY

477.0132 Hair braiding, hair wrapping, and body wrapping registration.—(1)(a) Persons whose occupation or practice is confined solely to hair braiding must register with the department, pay the applicable registration fee, and take a two-day 16-hour course. The course shall be board approved and consist of 5 hours of HIV/AIDS and other communicable diseases, 5 hours of sanitation and sterilization, 4 hours of disorders and diseases of the scalp, and 2 hours of studies regarding laws affecting hair braiding.

(b) Persons whose occupation or practice is confined solely to hair wrapping must register with the department, pay the applicable registration fee, and take a one-day 6-hour course. The course shall be board approved and consist of education in HIV/AIDS and other communicable diseases, sanitation and sterilization, disorders and diseases of the scalp, and studies regarding laws affecting hair wrapping.

(c) Unless otherwise licensed or exempted from licensure under this chapter, any person whose occupation or practice is body wrapping must register with the department, pay the applicable registration fee, and take a two-day 12-hour course. The course shall be board approved and consist of education in HIV/AIDS and other communicable diseases, sanitation and sterilization, disorders and diseases of the skin, and studies regarding laws affecting body wrapping.

(d) Only the board may review, evaluate, and approve a course required of an applicant for registration under this subsection in the occupation or practice of hair braiding, hair wrapping, or body wrapping. A provider of such a course is not required to hold a license under chapter 1005.

(2) Hair braiding, hair wrapping, and body wrapping are not required to be practiced in a cosmetology salon or specialty salon. When hair braiding, hair wrapping, or body wrapping is practiced outside a cosmetology salon or specialty salon, disposable implements must be used or all implements must be sanitized in a disinfectant approved for hospital use or approved by the federal Environmental Protection Agency.

(3) Pending issuance of registration, a person is eligible to practice hair braiding, hair wrapping, or body wrapping upon submission of a registration application that includes proof of successful completion of the education requirements and payment of the applicable fees required by this chapter.
477.15  

**Board of Cosmetology.**—(1) There is created within the department the Board of Cosmetology consisting of seven members, who shall be appointed by the Governor, subject to confirmation by the Senate, and whose function it shall be to carry out the provisions of this act.

(2) Five members of the board shall be licensed cosmetologists and shall have been engaged in the practice of cosmetology in this state for not less than 5 years. Two members of the board shall be laypersons. Each board member shall be a resident of this state and shall have been a resident of this state for not less than 5 continuous years.

(3) The Governor may at any time fill vacancies on the board for the remainder of unexpired terms. Each member of the board shall hold over after the expiration of his or her term until a successor is duly appointed and qualified. No board member shall serve more than two consecutive terms, whether full or partial.

(4) Before assuming his or her duties as a board member, each appointee shall take the constitutional oath of office and shall file it with the Department of State, which shall then issue to such member a certificate of his or her appointment.

(5) The board shall, in the month of January, elect from its number a chair and a vice chair.

(6) The board shall hold such meetings during the year as it may determine to be necessary, one of which shall be the annual meeting. The chair of the board shall have the authority to call other meetings at his or her discretion. A quorum of the board shall consist of not less than four members.

(7) Each member of the board shall receive $50 for each day spent in the performance of official board business, with the total annual compensation per member not to exceed $2,000. Additionally, board members shall receive per diem and mileage as provided in s. 112.061, from place of residence to place of meeting and return.

(8) Each board member shall be held accountable to the Governor for the proper performance of all his or her duties and obligations. The Governor shall investigate any complaints or unfavorable reports received concerning the actions of the board, or its members, and shall take appropriate action thereon, which action may include removal of any board member. The Governor may remove from office any board member for neglect of duty, incompetence, or unprofessional or dishonorable conduct.

477.16  

**Rulemaking.**—(1) The board may adopt rules pursuant to ss. 120.536(1) and 120.54 to implement the provisions of this chapter conferring duties upon it.

(2) The board may by rule adopt any restriction established by a regulation of the United States Food and Drug Administration related to the use of a cosmetic product or any substance used in the practice of cosmetology if the board finds that the product or substance poses a risk to the health, safety, and welfare of clients or persons providing cosmetology services.

477.018  

**Investigative services.**—The department shall provide all investigative services required by the board or the department in carrying out the provisions of this act.

477.28  

**Disciplinary proceedings.**—(1) The board shall have the power to revoke or suspend the license of a cosmetologist licensed under this chapter, or the registration of a specialist registered under this chapter, and to reprimand, censure, deny subsequent licensure or registration of, or otherwise discipline a cosmetologist or a specialist licensed or registered under this chapter in any of the following cases:

(a) Upon proof that a license or registration has been obtained by fraud or misrepresentation.

(b) Upon proof that the holder of a license or registration is guilty of fraud or deceit or of gross negligence, incompetency, or misconduct in the practice or instruction of cosmetology or a specialty.

(c) Upon proof that the holder of a license or registration is guilty of aiding, assisting, procuring, or advising any unlicensed person to practice as a cosmetologist.

(2) The board shall have the power to revoke or suspend the license of a cosmetology salon or a specialty salon licensed under this chapter, to deny subsequent licensure of such salon, or to reprimand, censure, or otherwise discipline the owner of such salon in either of the following cases:

(a) Upon proof that a license has been obtained by fraud or misrepresentation.

(b) Upon proof that the holder of a license is guilty of fraud or deceit or of gross negligence, incompetency, or misconduct in the operation of the salon so licensed.

(3) Disciplinary proceedings shall be conducted pursuant to the provisions of chapter 120.

(4) The department shall not issue or renew a license or certificate of registration under this chapter to any person against whom or salon against which the board has assessed a fine, interest, or costs associated with investigation and prosecution until the person or salon has paid in full such fine, interest, or costs associated with investigation and prosecution or until the person or salon complies with or satisfies all terms and conditions of the final order.
477.29  **Penalty.**—(1) It is unlawful for any person to:

(a) Hold himself or herself out as a cosmetologist, specialist, hair wrapper, hair braider, or body wrapper unless duly licensed or registered, or otherwise authorized, as provided in this chapter.

(b) Operate any cosmetology salon unless it has been duly licensed as provided in this chapter.

(c) Permit an employed person to practice cosmetology or a specialty unless duly licensed or registered, or otherwise authorized, as provided in this chapter.

(d) Present as his or her own the license of another.

(e) Give false or forged evidence to the department in obtaining any license provided for in this chapter.

(f) Impersonate any other license holder of like or different name.

(g) Use or attempt to use a license that has been revoked.

(h) Violate any provision of s. 455.227(1), s. 477.0265, or s. 477.028.

(i) Violate or refuse to comply with any provision of this chapter or chapter 455 or a rule or final order of the board or the department.

(2) Any person who violates the provisions of this section shall be subject to one or more of the following penalties, as determined by the board:

(a) Revocation or suspension of any license or registration issued pursuant to this chapter.

(b) Issuance of a reprimand or censure.

(c) Imposition of an administrative fine not to exceed $500 for each count or separate offense.

(d) Placement on probation for a period of time and subject to such reasonable conditions as the board may specify.

(e) Refusal to certify to the department an applicant for licensure.

**B. Selected FLORIDA ADMINISTRATIVE CODE**

1. **Florida Administrative Code Chapter 61G-5 Cosmetology**

**CHAPTER 61G5-17 ORGANIZATION, PURPOSE, MEETINGS, PROBABLE CAUSE DETERMINATION, PROCEDURES**

**61G5-17.006 General Information and Forms**

**61G5-17.008 Probable Cause Determination**

**61G5-17.009 Meetings and Election of Officers**

**61G5-17.0095 Unexcused Absences**

**61G5-17.010 Notice of Meetings**

**61G5-17.006 General Information and Forms.**

(1) The Board may be contacted through the Department of Business and Professional Regulation, Northwood Centre, 1940 N. Monroe Street, Tallahassee, Florida 32399-0790, Tel. (850) 488-5702. Office hours are 8:00 A.M. to 5:00 P.M., Monday through Friday, except for state holidays.

(2) The following forms are used by the Department and may be obtained by writing to the Board’s Office:

(a) Examination Applications for Cosmetologists and Specialty Registration Applications.

(b) Re-examination Applications for Cosmetologists.

(c) Application for Endorsement of Cosmetologists and Specialists.

(d) Salon and Specialty Salon Applications.

**61G5-17.008 Probable Cause Determination.**

The determination as to whether probable cause exists to believe that a violation of the provisions of Chapter 455 or 477, F.S., or of the rules promulgated thereunder has occurred, shall be made by the Department of Business and Professional Regulation.

**BHi.edu 12 - hour Florida Body Wrapper Registration Course**

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COURSE UNIT 4 - Laws and Rules for the Florida Body Wraper

61G5-17.009 Meetings and Election of Officers.
The Board shall hold such meetings during the year as it may deem necessary, one of which shall be the annual meeting. The Chairman or a quorum of the Board shall have the authority to call other meetings. The Chairman and Vice-Chairman shall be elected at the annual meeting in January.

61G5-17.0095 Unexcused Absences.
Unexcused absences shall include any absence other than: one caused by serious illness of a member preventing attendance; death or serious illness of a family member; unavoidable travel delays or cancellations preventing attendance; or any conflict, extraordinary circumstances or event approved by the chairperson of the board. Members shall communicate the reason for any absence to the Executive Director prior to the meeting and the reason for the absence shall be made part of the minutes of that meeting.

61G5-17.010 Notice of Meetings.
(1) Except in the case of emergencies, the Board shall give at least seven (7) days’ notice of any meeting or workshop to the public by publication in the Florida Administrative Weekly.
(2) The notice shall state the date, time and place of the meeting, a brief description of the purpose of the meeting, and the address where persons may write to obtain a copy of the agenda.

CHAPTER 61G5-20 COSMETOLOGY SALONS

61G5-20.001 Salon Defined
61G5-20.003 Inspections
61G5-20.004 Display of Documents

61G5-20.001 Salon Defined.
Salon means any establishment or place of business wherein cosmetology as defined in Section 477.013(4), F.S., or any specialty as defined in Section 477.013(6), F.S., is practiced for compensation, however this does not prevent the practice of cosmetology in a licensed barbershop, or the practice of barbering in a licensed cosmetology salon, provided the salon employs a licensed cosmetologist. Except as provided in Rule 61G5-20.010, F.A.C., a salon must be at a fixed location.

61G5-20.003 Inspections.
The Department of Business and Professional Regulation shall cause an inspection of all proposed salons to determine if all the requirements have been met. Each licensed salon shall be inspected at least biennially by the Department. No person shall, for any reason intentionally, or directly inhibit an authorized representative of the Department from performing said inspections.

61G5-20.004 Display of Documents.
(1) All holders of a cosmetology or specialty salon license shall display within their salons in a conspicuous place which is clearly visible to the general public upon entering the salon the following documents:
(a) The current salon license,
(b) A legible copy of the most recent inspection sheet for the salon.
(2) All holders of a cosmetology or specialty salon license shall require and ensure that all individuals engaged in the practice of cosmetology, any specialty, hair braiding, hair wrapping, or body wrapping display at the individual’s work station their current license or registration at all times when the individual is performing cosmetology, specialty, hair braiding, hair wrapping, or body wrapping services. The license or registration on display shall be the original certificate or a duplicate issued by the Department and shall have attached a 2” by 2” photograph taken within the previous two years of the individual whose name appears on the certificate. The certificate with photograph attached shall be permanently laminated as of July 1, 2007.
(3) By July 1, 2008, all holders of a cosmetology or specialty salon license shall display at each footbath a copy of the Consumer Protection Notice regarding footbaths, sanitation, and safety. Copies of this notice (revised 10/15/07, and incorporated herein by reference) may be obtained from the Department of Business and Professional Regulation at 1940 North Monroe St., Tallahassee, FL 32399-0783, and the Call Center by calling (850)487-1395.

CHAPTER 61G5-24: FEE SCHEDULE

61G5-24.019 Hair Braiding and Hair wrapping Fees

61G5-24.020 Special Assessment Fee

61G5-24.019 Hair Braiding and Hair wrapping Fees.
(1) The initial fee for registration as a hair braider, hair wrapper, or body wrapper shall be twenty-five dollars ($25.00).
(2) The fee for biennial renewal of a hair braiding, hair wrapping, or body wrapping registration in an active or inactive status shall be twenty-five dollars ($25.00).
(3) The delinquency fee to be paid by a delinquent status hair braider registrant, hair wrapper registrant, or body wrapper registrant when applying for either active or inactive status shall be twenty-five dollars ($25.00). The delinquency fee shall be paid in addition to the normal renewal fee for the status for which the registrant has applied.
(4) The fee for the reactivation of an inactive hair braider, hair wrapper, or body wrapper registration to active status shall be fifty dollars ($50.00). The reactivation fee shall be paid in addition to any difference between the normal inactive renewal fee and the active renewal fee.
(5) The fee for a change in the status of a hair braider, hair wrapper, or body wrapper registration if requested at a time other than the normal renewal period shall be five dollars ($5.00).

61G5-24.020 Special Assessment Fee.
(1) As a condition of license or registration renewal for the biennium beginning on November 1, 2006, December 1, 2006, or November 1, 2007, all active and inactive license and registration holders, including all licensed cosmetologists, cosmetology and specialty salon license holders, registered specialists, registered hair braiders, registered hair wrappers, and registered body wrappers, shall pay a one-time special assessment fee of $30.00 in order to eliminate the current cash deficit in the operating funds of the Board. Payment of this fee shall be due and payable at the time the license or registration is renewed.
(2) Failure to comply with this rule and pay the required fee shall constitute grounds for disciplinary action pursuant to Sections 477.029(1)(i), and 455.227(1)(b) and (q), F.S.

CHAPTER 61G5-25 LICENSURE STATUS AND NOTICE OF ADDRESS CHANGE

61G5-25.001 Active Status
61G5-25.002 Inactive Status; Reactivation
61G5-25.003 Delinquent Status
61G5-25.005 Notice to the Department of Mailing Address and Place of Practice of Licensee

61G5-25.001 Active Status.
(1) The department shall renew an active cosmetology license or specialty registration upon timely receipt of the completed application for status, the biennial renewal fee, and certification that the licensee or registrant has demonstrated participation in the continuing education required by Rule 61G5-32.001, F.A.C.
(2) The term “completed application” for purposes of active status or inactive status shall mean either a completed renewal notice or a written request from the licensee or registrant accompanied by a statement affirming compliance with the applicable requirements for renewal.
61G5-25.002 Inactive Status; Reactivation.
(1) Any licensee or registrant may elect at the time of license renewal to place the license or registration into inactive status by filing with the Board a completed application for inactive status as defined by Rule 61G5-25.001(2), F.A.C., and by paying the inactive status fee.
(2) An inactive status licensee or registrant may change to active status at any time provided the licensee or registrant meets the continuing education requirements of Rule 61G5-32.001, F.A.C., pays the reactivation fee, and if the request to change licensure status is made at any time other than at the beginning of a licensure cycle, pays the additional processing fee. However, a licensee or registrant whose license or registration has been in inactive status for more than two consecutive biennial licensure cycles shall be required to submit a statement affirming that the licensee or registrant has read within the last thirty (30) days and is familiar with the laws and rules for the practice of cosmetology in the State of Florida before the license or registration can be placed into active status.
(3) Any inactive licensee or registrant who elects active status is not eligible to elect to return to inactive status until the next licensure renewal period.
(4) A cosmetologist or specialist may not work with an inactive or delinquent license or registration.

61G5-25.003 Delinquent Status.
(1) The failure of any licensee or registration holder to elect active or inactive status before the license or registration expires shall cause the license or registration to become delinquent.
(2) The delinquent status licensee or registrant must affirmatively apply for active or inactive status during the licensure cycle in which the licensee or registrant becomes delinquent. The failure by the delinquent status licensee or registrant to cause the license or registration to become active or inactive before the expiration of the licensure cycle in which the license or registration became delinquent shall render the license or registration null and void without further action by either the Board or the Department.
(3) The delinquent status licensee or registrant who applies for active or inactive license or registration status shall:
(a) file with the Board a completed application for either active or inactive status as defined in subsection 61G5-25.001(2), F.A.C.;
(b) pay to the Board either the active status or inactive status fee, the delinquency fee, and, if the request to change licensure status is made at any time other than at the beginning of a licensure cycle, pays the additional processing fee; and
(c) if active status is elected, demonstrate compliance with the continuing education requirements found in Rule 61G5-32.001, F.A.C.

61G5-25.005 Notice to the Department of Mailing Address and Place of Practice of Licensee.
(1) It shall be the duty of each licensee or registrant to provide written notification to the Department of the licensee’s or registrant’s current mailing address and place of practice. For purposes of this rule, “place of practice” means the address of the physical location where the licensee or registrant practices cosmetology or a specialty.
(2) Any time that the current mailing address or place of practice of any licensee or registrant changes, written notification of the change shall be provided to the Department within ninety (90) days of the change. Written notice shall be sent to the following address: Florida Board of Cosmetology, Department of Business and Professional Regulation, Northwood Centre, 1940 North Monroe Street, Tallahassee, Florida 32399-0790.
(3) It shall be a violation of this rule for a licensee or registrant to fail to advise the Department within ninety (90) days of a change of mailing address. It shall not be a violation of this rule to fail to advise the Department of a change of one’s place of practice within ninety (90) days.

CHAPTER 61G5-30 DISCIPLINARY GUIDELINES

61G5-30.001 Disciplinary Guidelines
61G5-30.004 Citations
61G5-30.005 Mediation
61G5-30.006 Notice of Non Compliance

BHI.edu 12 - hour Florida Body Wraper Registration Course
COURSE UNIT 4 - Laws and Rules for the Florida Body Wraper

61G5-30.001 Disciplinary Guidelines.
(1) The Board shall act in accordance with the following guidelines when it finds the enumerated violations in disciplinary cases. The Board shall impose a penalty within the range of each applicable disciplinary violation set forth below unless the Board finds an aggravating or mitigating circumstance, in which case the Board may deviate from the guideline penalty.

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<th>(2) VIOLATION</th>
<th>PENALTY RANGE</th>
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<tr>
<td>(a) Unlicensed cosmetology or specialty practice. (477.0265(1)(a) or 477.029(1)(a), F.S.)</td>
<td>For an individual who was never licensed, a fine of $500. For a licensee or registrant who fails to properly renew, a fine of $50 for every month or partial month during which the individual was unlicensed or unregistered, up to a maximum of $500.</td>
</tr>
<tr>
<td>(b) Unlicensed Salon and Delinquent Salon License. (477.0265(1)(b)1. or 477.029(1)(b), F.S.)</td>
<td>For a salon which has never been licensed, or for which the salon license has expired, a fine of $500. For a salon license which has become delinquent, a fine of $50 for every month or partial month of delinquency during which the salon has operated, up to a total of $500.</td>
</tr>
<tr>
<td>(c) Permitting a person without a license or registration, unless exempt, to perform cosmetology services or any specialty in a salon. (477.0265(1)(b)2., F.S.)</td>
<td>For a violation involving a person who was never licensed or registered in Florida, a fine of $250 to $500. For a violation involving a person who failed to properly renew or whose exemption has terminated, a fine of $50 for every month or partial month during which the violation took place, up to $500.</td>
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<tr>
<td>(d) Permitting an employee to practice cosmetology or a specialty without being duly licensed, registered, or otherwise authorized. (477.0265(1)(d) or 477.029(1)(c), F.S.)</td>
<td>For employing a person who was never licensed or registered in Florida, or who is not exempt, a fine of $250 to $500. For employing a person who failed to properly renew or whose exemption has terminated, a fine of $50 for every month or partial month during which the person was employed, up to $500.</td>
</tr>
<tr>
<td>(e) Engage in willful or repeated violations of Chapter 477, F.S., or any rule adopted by the Board. (477.0265(1)(c), F.S.)</td>
<td>For a first offense, a fine of $500. For a subsequent offense, a fine of $500 and suspension or revocation of any license or registration issued pursuant to Chapter 477, F.S.</td>
</tr>
<tr>
<td>(f) Obtain or attempt to obtain a license or registration for money, other than the required fee, or any other thing of value or by fraudulent misrepresentations. (477.0265(1)(e), F.S.)</td>
<td>A fine of $500 and denial or revocation of the license or registration.</td>
</tr>
<tr>
<td>(g) Using or attempting to use a suspended or revoked cosmetology license or specialty registration to practice cosmetology or a specialty. (477.0265(1)(f) or 477.029(1)(g), F.S.)</td>
<td>A fine of $500 and suspension for one year of any license or registration issued pursuant to Chapter 477, F.S.</td>
</tr>
<tr>
<td>(h) Advertising or implying that skin care services or body Wrapping are related to massage therapy, except as allowed by statute. (477.0265(1)(g), F.S.)</td>
<td>A fine of $100 to $200 for the first offense; a fine of $500 for subsequent offenses.</td>
</tr>
<tr>
<td>(i) Use or possess a product containing a liquid nail monomer containing any trace of methyl methacrylate (MMA).</td>
<td>A fine of $500 for the first offense; a fine of $500 and suspension or revocation for a subsequent offense.</td>
</tr>
</tbody>
</table>
(477.0265(1)(h), F.S.)

(j) License or registration obtained by fraud or false or forged evidence.
(477.028(1)(a), 477.028(2)(a) or 477.029(c), F.S.)

A fine of $500 and revocation of the salon license, cosmetology license, or specialty registration.

(k) Guilty of fraud, deceit, gross negligence, incompetency, or misconduct in practice or instruction of cosmetology or specialty, or in operation of the salon.
(477.028(1)(b) or 477.028(2)(b), F.S.)

A fine of $200 to $500 and suspension or revocation of the salon license, cosmetology license, or specialty registration.

(l) License or registration holder is guilty of aiding, assisting, procuring, or advising any unlicensed person to practice as a cosmetologist.
(477.028(1)(c), F.S.)

A fine of $250 for the first offense. A fine of $500 and revocation or suspension of salon license, cosmetology license, or specialty registration for a subsequent offense.

(m) Present license of another as his or her own license.
(477.029(1)(d), F.S.)

A fine of $500 and a reprimand for the first offense. A fine of $500 and refusal to certify for licensure for a subsequent offense.

(n) Impersonate any other license holder of like or different name.
(477.029(1)(f), F.S.)

A fine of $500 and a 6 month suspension of any other license or registration held pursuant to Chapter 477, F.S.

(o) Violate or refuse to comply with:

1. Any provision of Chapter 455, F.S., or final order of the Board or the Department;

A fine of $500 and suspension, revocation, or refusal to certify to the department for licensure.

2. Any provision of Chapter 477, F.S., or a rule of the Board or the Department except as otherwise provided;

A fine of $100 to $200 for the first violation. A fine of $300 to $500 for a subsequent violation. A fine of $500 and suspension or revocation of license or registration for a refusal to comply.

3. Salon requirements subsections 61G5-20.002(2)-(6), F.A.C., relating to sanitation and safety; or

A fine of $50 per violation for less than three violations. A fine of $250 for three to four violations. A fine of $500 for five or more violations. A fine of $250 for a salon operating without sterilization equipment.

4. Display of documents Rule 61G5-20.004, F.A.C., relating to display of licenses and inspection sheets.
(477.029(1)(h)-(i), F.S.)

A fine of $100 for each violation for the first offense. A fine of $200 to $300 for each subsequent offense.

(3) When the Board finds that any person licensed or registered under Chapter 477, F.S., has committed any of the acts set forth in Section 477.028, F.S., it is recommended that the Board issue a final order imposing a revocation of the license or registration involved in any such violation.

(4) Based upon consideration of the following factors, the Board may impose disciplinary action other than the penalties recommended above:

(a) The danger to the public;
(b) The length of time since date of violation;
(c) The number of complaints filed against the licensee;
(d) The length of time licensee or registrant has practiced;
(e) The actual damage, physical or otherwise, caused by the violation;
(f) The deterrent effect of the penalty imposed;
(g) The effect of the penalty upon the licensee’s or registrant’s livelihood;
(h) Any efforts for rehabilitation;
(i) The actual knowledge of the licensee or registrant pertaining to the violation;
(j) Attempts by licensee or registrant to correct or stop violations or refusal by licensee or registrant to correct or stop violations;
(k) Related violations against a licensee or registrant in another state including findings of guilt or innocence, penalties imposed and penalties served;
(l) Actual negligence of the licensee or registrant pertaining to any violations;
(m) Penalties imposed for related offenses under subsection (1) above;
(n) Any other mitigating or aggravating circumstances.
(5) Penalties imposed by the Board pursuant to Rule 61G5-30.001, F.A.C., may be imposed in combination or individually but may not exceed the limitations enumerated below:
(a) Issuance of a reprimand or censure.
(b) Imposition of an administrative fine not to exceed $500 for each count or separate offense.
(c) Placement on probation for a period of time and subject to such reasonable conditions as the Board may specify.
(d) Revocation or suspension of any license or registration issued pursuant to Chapter 477, F.S.
(e) Refusal to certify to the Department an applicant for licensure or registration.
(6) The provisions of subsections (1) through (5) above shall not be construed so as to prohibit civil action or criminal prosecution as provided for in Section 477.0265(2) or Section 477.031, F.S., and the provisions of subsections (1) through (5) above shall not be construed so as to limit the ability of the Board to enter into binding stipulations with accused parties as per Section 120.57(3), F.S.
(7) In every case the Board imposes a monetary fine, it shall also suspend the Respondent’s license(s). However, to enable the Respondent to pay the fine, the suspension shall be stayed for the time period specified in the Board’s final order in accordance with Rule 61G5-17.016, F.A.C. If the fine is paid within that time period, the suspension shall not take effect; if the fine is not paid within that time period, then the stay shall expire and the suspension shall take effect. Thereafter, upon payment of the fine, the suspension shall be lifted.

61G5-30.004 Citations.
(1) Definitions. As used in this rule;
(a) “Citation” means an instrument which meets the requirements set forth in Section 455.224, F.S., and which is served upon a subject for the purpose of assessing a penalty in an amount established by this rule;
(b) “Subject” means the licensee, applicant, person, partnership, corporation, or other entity alleged to have committed a violation designated in this rule.
(2) In lieu of the disciplinary procedures contained in Section 455.225, F.S., the Department is hereby authorized to dispose of any violation designated herein by issuing a citation to the subject within six months after the filing of the complaint which is the basis for the citation.
(3) Citations shall be issued for the first offense violations only.
(4) The Board hereby designates the following as citation violations, which shall result in a penalty of fifty dollars ($50.00):
(a) Except as otherwise provided herein, any violation of the safety, sanitary, or other salon requirements specified in Rule 61G5-20.002, F.A.C. – however, if it is an initial offense and there are no other violations, then the subject shall be given a Notice of Noncompliance;
(b) Practicing cosmetology or a specialty with an inactive or expired license for one month or part of a month;
(c) Operating a salon with a delinquent license for one month or part of a month;
(d) Employing a person to practice cosmetology or a specialty with an inactive or expired license for one month or part of a month.
(e) Unless otherwise permitted in Chapter 477, F.S., performing cosmetology services in a salon which does not have a license in violation of Section 477.0263(1), F.S.
(5) The Board hereby designates the following as citation violations, which shall result in a penalty of one hundred dollars ($100.00):
(a) Transferring ownership or changing location of a salon without the approval of the Department pursuant to Rule 61G5-20.006, F.A.C., provided the transfer of ownership or change of location has not exceeded 90 days and the salon owner can provide proof that a completed application has been filed with the Department;
(b) Practicing cosmetology or a specialty with an inactive or expired license for more than one month but not more than two months;
(c) Operating a salon with a delinquent license for more than one month but not more than two months;
(d) employing a person to practice cosmetology or a specialty with an inactive or expired license for more than one month but not more than two months;
(e) Two violations of the safety, sanitary, or other salon requirements specified in Rule 61G5-20.002, F.A.C.
(6) The Board hereby designates the following as citation violations, which shall result in a penalty of one hundred and fifty dollars ($150.00):
(a) Practicing cosmetology or a specialty with an inactive or expired license for more than two months but not more than three months;
(b) Operating a salon with a delinquent license for more than two months but not more than three months;
(c) Employing a person to practice cosmetology or a specialty with an inactive or expired license for more than two months but not more than three months.
(7) The Board hereby designates the following as citation violations, which shall result in a penalty of two hundred dollars ($200.00):
(a) Practicing cosmetology or a specialty with an inactive or expired license for more than three months but not more than four months;
(b) Operating a salon with a delinquent license for more than three months but not more than four months;
(c) Employing a person to practice cosmetology or a specialty with an inactive or expired license for more than three months but not more than four months;
(d) Five or more violations of the safety, sanitary, or other salon requirements specified in Rule 61G5-20.002, F.A.C.
(8) The Board hereby designates the following as citation violations, which shall result in a penalty of two hundred and fifty dollars ($250.00):
(a) Operating a salon without a wet sanitizer as required by paragraph 61G5-20.002(2)(d), F.A.C.;
(b) Three or more violations of the safety, sanitary, or other salon requirements specified in Rule 61G5-20.002, F.A.C.;
(c) Practicing cosmetology or a specialty with an inactive or expired license for more than four months but not more than five months;
(d) Operating a salon with a delinquent license for more than four months but not more than five months; and
(e) Employing a person to practice cosmetology or a specialty with an inactive or expired license for more than four months but not more than five months.
(9) The Board hereby designates the following as citation violations, which shall result in a penalty of three hundred dollars ($300.00):
(a) Practicing cosmetology or a specialty with an inactive or expired license for more than five months but not more than six months;
(b) Operating a salon with a delinquent license for more than five months but not more than six months;
(c) Employing a person to practice cosmetology or a specialty with an inactive or expired license for more than five months but not more than six months; and
(d) Five or more violations of the safety, sanitary, or other salon requirements specified in Rule 61G5-20.002, F.A.C.
(10) The Board hereby designates the following as citation violations, which shall result in a penalty of three hundred and fifty dollars ($350.00):
(a) Practicing cosmetology or a specialty with an inactive or expired license for more than six months but not more than seven months;
(b) Operating a salon with a delinquent license for more than six months but not more than seven months; and
(c) Employing a person to practice cosmetology or a specialty with an inactive or expired license for more than six months but not more than seven months.
(11) The Board hereby designates the following as citation violations, which shall result in a penalty of four hundred dollars ($400.00):
(a) Practicing cosmetology or a specialty with an inactive or expired license for more than seven months but not more than eight months;
(b) Operating a salon with a delinquent license for more than seven months but not more than eight months; and
(c) Employing a person to practice cosmetology or a specialty with an inactive or expired license for more than seven months but not more than eight months.
(12) The Board hereby designates the following as citation violations, which shall result in a penalty of four hundred and fifty dollars ($450.00):
(a) Practicing cosmetology or a specialty with an inactive or expired license for more than eight months but not more than nine months;
(b) Operating a salon with a delinquent license for more than eight months but not more than nine months; and
(c) Employing a person to practice cosmetology or a specialty with an inactive or expired license for more than eight months but not more than nine months.
(13) The Board hereby designates the following as citation violations, which shall result in a penalty of five hundred dollars ($500.00):
(a) Practicing cosmetology or a specialty without a license;
(b) Operating a salon without a license;
(c) Employing a person to practice cosmetology or a specialty without a license;
(d) Practicing cosmetology or a specialty with an inactive or expired license for more than nine months but not more than twelve months;
(e) Operating a salon with a delinquent license for more than nine months but not more than twelve months; and
(f) employing a person to practice cosmetology or a specialty with an inactive or expired license for more than nine months but not more than twelve months.

61G5-30.005 Mediation.
(1) “Mediation” means a process whereby a mediator appointed by the department acts to encourage and facilitate resolution of a legally sufficient complaint. It is an informal and nonadversarial process with the objective of assisting the parties to reach a mutually acceptable agreement.
(2) The Board finds that mediation is an acceptable method of dispute resolution for the following violations as they are economic in nature or can be remedied by the licensee:
(a) Failure of the licensee to timely pay any assessed administrative fines or costs;
(b) Failure of the licensee to timely respond to a continuing education audit;
(c) Failure to submit change of address for a salon; and
(d) Failure to timely notify the department of the licensee’s or registrant’s change of mailing address or place of practice.
(3) A “mediator” means a person who is certified in mediation by the Florida Bar, the Florida Supreme Court, or the Division of Administrative Hearings.

61G5-30.006 Notice of Non Compliance.
(1) In accordance with Section 455.225(3), F.S., when a complaint is received, the agency may provide a licensee with a notice of non-compliance for an initial offense of a minor violation. Failure of a licensee to take action in correcting the violation within 15 days after notice may result in the institution of regular disciplinary proceedings. “Minor violations” as used in Section 455.225(3), F.S., are defined as follows:
(a) Violations of Rule 61G5-20.004, F.A.C.
(b) Violations of subsection 61G5-18.011(1), F.A.C., in failing to maintain a copy of his or her certificate of course completion in instruction on Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome.
(c) Violations of paragraph 61G5-20.008(2)(a), F.A.C., in failing to retain copies of an employee’s high school diploma or G.E.D. equivalency certificate and cosmetology school diploma or certificate of completion.
(2) In accordance with Chapter 95-402, Laws of Florida, the agency shall issue a notice of non-compliance as first enforcement action against a licensee for a minor violation of a rule. Pursuant to Chapter 95-402, Section (2)(b), Laws of Florida, the Board designates the following rules for which a violation would be a minor violation of a rule for which a notice of non-compliance is issued:
(a) Violations of Rule 61G5-20.004, F.A.C.
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(b) Violations of subsection 61G5-18.011(1), F.A.C., in failing to maintain a copy of his or her certificate of course completion in instruction on Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome.
(c) Violations of paragraph 61G5-20.008(2)(a), F.A.C., in failing to retain copies of an employee’s high school diploma or GED equivalency certificate and cosmetology school diploma or certificate of completion.

CHAPTER 61G5-31
HAIR BRAIDING, HAIR WRAPPING AND BODY WRAPPING

CHAPTER 61G5-31 HAIR BRAIDING, HAIR WRAPPING AND BODY WRAPPING
61G5-31.0011 Definitions
61G5-31.002 Hair Braiding, Hair wrapping, and Body wrapping; Registration Requirements, Practice Outside of Licensed Salon
61G5-31.003 Hair Braiding, Hair wrapping, and Body wrapping Registration
61G5-31.004 Hair Braiding and Hair wrapping Course Requirements
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61G5-31.006 Practice s of Hair Braiding, Hair wrapping, and Body Wrapping Pending Approval of Registration

61G5-31.0011 Definitions.
Manufactured materials for use in hair wrapping means multi-strand cotton or polyester blend, twisted, not braided, into a single embroidery or yarn thread.

61G5-31.002 Hair Braiding, Hair wrapping, and Body wrapping; Registration Requirements, Practice Outside of Licensed Salon.
(1) Only those individuals who are licensed to engage in the practice of cosmetology in the State of Florida, or who are registered to engage in the practice of hair braiding in the State of Florida shall engage in the practice of hair braiding or perform hair braiding services in the State of Florida.
(2) Only those individuals who are licensed to engage in the practice of cosmetology in the State of Florida, or who are registered to engage in the practice of hair wrapping in the State of Florida shall engage in the practice of hair wrapping or perform hair wrapping services in the State of Florida.
(3) Registration as a hair braider shall not authorize a registrant to practice hair wrapping. Registration as a hair wrapper shall not authorize a registrant to practice hair braiding.
(4) Only those individuals who are licensed to engage in the practice of cosmetology in the State of Florida, or who are registered to engage in the practice of body wrapping in the State of Florida shall engage in the practice of body wrapping or performed body wrapping services in the State of Florida.
(5) Whenever either hair braiding, hair wrapping, or body wrapping services are performed in a location other than a licensed cosmetology or specialty salon, all implements used in connection with the performance of the services shall be of a disposable nature; or shall be sanitized in a disinfectant approved for hospital use or approved by the Environmental Protection Agency. Whenever either hair braiding, hair wrapping, or body wrapping services are performed in a licensed cosmetology or specialty salon, all laws and rules of the Board concerning the operation of the cosmetology or specialty salon, including all sanitary and disinfectant requirements, shall be observed and complied with by individuals performing hair braiding, hair wrapping, or body wrapping services.

61G5-31.003 Hair Braiding, Hair wrapping, and Body wrapping Registration.
(1) All persons desiring to become registered to practice hair braiding shall apply for registration to the Department in writing upon forms prepared and furnished by the Department, shall pay the registration fee as set forth in Chapter 61G5-24, F.A.C., and shall provide satisfactory proof of their successful completion of a two-day 16-hour Board approved hair braiding course.
(2) All persons desiring to become registered to practice hair wrapping shall apply for registration to the Department in writing upon forms prepared and furnished by the Department, shall pay the registration fee as set forth in Chapter 61G5-24, F.A.C., and shall provide satisfactory proof of their successful completion of a one-day 6-hour Board approved hair wrapping course.

(3) All persons desiring to become registered to practice body wrapping shall apply for registration to the Department, shall pay the registration fee as set forth in Chapter 61G5-24, F.A.C., and shall provide satisfactory proof of their successful completion of a two-day 12-hour Board approved body wrapping course as set forth in Rule 61G5-31.004, F.A.C.

(4) Satisfactory proof of successful completion of the required hair braiding course, hair wrapping course, or body wrapping course shall consist of the original or a legible copy of the certificate of completion supplied to the applicant by the provider of the course indicating the provider’s name, the student name, the dates of the course, and the total number of hours successfully completed.

(5) All persons who have applied for registration as a hair braider, hair wrapper, or body wrapper shall retain a copy of all materials submitted in connection with their application, including the completed application, proof of payment of all applicable fees, and satisfactory proof of their successful completion of a Board approved hair braider, hair Wrapper, or body wrapper course, until they are issued a certificate of registration or notified that their application has been denied.

61G5-31.004 Hair Braiding and Hair wrapping Course Requirements.

(1) All hair braiding courses taught for purposes of qualifying an individual for initial registration as a hair braider shall be a two-day, 16-hour course; and, shall be approved by the Board prior to the course being taught for registration qualification purposes. To be considered for approval by the Board, the course shall consist of the following:

(a) 5 hours of instruction regarding HIV/AIDS and other communicable diseases. At the conclusion of this instruction a student shall be able to understand:
   1. The causes of HIV/AIDS, hepatitis, tuberculosis, and other communicable diseases and how these diseases are spread;
   2. The dangers associated with these diseases; and
   3. How to avoid contamination from the diseases in the practice of hair braiding.

(b) 5 hours of instruction regarding sanitation and sterilization. At the conclusion of this instruction a student shall be able to understand:
   1. Universal sanitation and sterilization precautions;
   2. How to distinguish between disinfectants and antiseptics; and
   3. How to sanitize hands and disinfect tools used in the practice of hair braiding.

(c) 4 hours of instruction regarding disorders and diseases of the scalp. At the conclusion of this instruction a student shall be able to understand:
   1. Disorders and diseases of the scalp and how to distinguish between them; and
   2. When hair braiding services can be performed on a client with disorders or diseases of the scalp.

(d) 2 hours of instruction regarding the laws and rules of the Board which affect and govern the practice of hair braiding. At the conclusion of this instruction a student shall be able to understand:
   1. The laws and rules of the Board that protect the health, safety, and welfare of the consumer;
   2. The laws and rules of the Board that determine where and when an individual may legally practice hair braiding;
   3. The function of the Board of Cosmetology, how its members are appointed, and their duties;
   4. The laws and rules of the Board which specify prohibited conduct, and the penalties for failure to follow the laws and rules; and
   5. The dates, fees, and requirements for renewal of a hair braiding registration.

(2) All hair wrapping courses taught for purposes of qualifying an individual for initial registration as a hair wrapper shall be a one-day, 6-hour course; and, shall be approved by the Board prior to the course being taught for registration qualification purposes. To be considered for approval by the Board, the course shall consist of the following:

(a) Two (2) hours of instruction regarding HIV/AIDS and other communicable diseases. At the conclusion of this instruction, a student shall be able to understand:
   1. The causes of HIV/AIDS, hepatitis, tuberculosis, and other communicable diseases and how these diseases are spread;
   2. The dangers associated with these diseases; and
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3. How to avoid contamination from the diseases in the practice of hair wrapping.
   (b) Two (2) hours of instruction regarding sanitation and sterilization. At the conclusion of this instruction, a student shall be able to understand:
   1. Universal sanitation and sterilization precautions;
   2. How to distinguish between disinfectants and antiseptics; and
   3. How to sanitize hands and disinfect tools used in the practice of hair wrapping.
   (c) One (1) hour of instruction regarding disorders and diseases of the scalp. At the conclusion of this instruction, a student shall be able to understand:
   1. disorders and diseases of the scalp and how to distinguish between them; and
   2. When hair wrapping services can be performed on a patron with disorders or diseases of the scalp.
   (d) One (1) hour of instruction regarding the laws and rules of the Board which affect and govern the practice of hair wrapping. At the conclusion of this instruction, a student shall be able to understand:
   1. The laws and rules of the Board that protect the health, safety, and welfare of the consumer;
   2. The laws and rules of the Board that determine where and when an individual may legally practice hair wrapping;
   3. The function of the Board of Cosmetology, how its members are appointed, and their duties;
   4. The laws and rules of the Board which specify prohibited conduct, and the penalties for failure to follow the laws and rules;
   5. The dates, fees, and requirements for renewal of a hair wrapping registration.

(3) All body wrapping courses taught for purposes of qualifying an individual for initial registration as a body wrapper shall be a two-day, 12-hour course; and, shall be approved by the Board prior to the course being taught for registration qualification purposes. To be considered for approval by the Board, the course shall consist of the following:
   (a) Three (3) hours of instruction regarding HIV/AIDS and other communicable diseases. At the conclusion of this instruction, a student shall be able to understand:
      1. The causes of HIV/AIDS, hepatitis, tuberculosis, and other communicable diseases and how these diseases are spread;
      2. The dangers associated with these diseases; and,
      3. How to avoid contamination from the diseases in the practice of body wrapping.
   (b) Four (4) hours of instruction regarding sanitation and sterilization. At the conclusion of this instruction, a student shall be able to understand:
      1. Universal sanitation and sterilization precautions;
      2. How to distinguish between disinfectants and antiseptics; and,
      3. How to sanitize hands and disinfect tools used in the practice of body wrapping.
   (c) Four (4) hour of instruction regarding disorders and diseases of the skin. At the conclusion of this instruction, a student shall be able to understand:
      1. Disorders and diseases of the skin and how to distinguish between them; and,
      2. When skin wrapping services can be performed on a patron with disorders or diseases of the skin.
   (d) One (1) hour of instruction regarding laws and rules of the Board which affecting and govern the practice of body wrapping. At the conclusion of this instruction, a student shall be able to understand:
      1. The laws and rules of the Board that protect the health, safety, and welfare of the consumer;
      2. The laws and rules of the Board that determine where and when an individual may legally practice body wrapping;
      3. The function of the Board of Cosmetology, how its members are appointed, and their duties;
      4. The laws and rules of the Board which specify prohibited conduct, and the penalties for failure to follow the laws and rules;
      5. The dates, fees, and requirements for renewal of a body wrapping registration.

(4) All proposed hair braiding, hair wrapping, or body wrapping courses must be submitted for presentation to the Board no later than 30 days prior to the next regularly scheduled meeting of the Board at which the proposed course is to be considered for approval. No hair braiding, hair wrapping, or body wrapping course may be taught for credit towards the initial hair braiding, hair wrapping, or body wrapping registration requirements until it has been reviewed and approved by the Board.

(5) All providers of hair braiding, hair wrapping, and body wrapping courses shall provide to all individuals who
successfully complete the course a certificate of completion which shall indicate the title of the course completed, the provider’s name, the student name, the date of the course, and the total number of hours successfully completed.

61G5-31.005 Hair Braiding, Hair wrapping, and Body wrapping Term of Registration, Registration Renewal.
(1) All hair braiding, hair wrapping, and body wrapping registrations shall be valid for a period of two years or until the end of the biennial licensure renewal cycle in which they are first issued, whichever occurs first. The biennial licensure renewal cycle for all hair braiding, hair wrapping, and body wrapping registrations shall coincide with the biennial licensure renewal cycle used for the renewal of cosmetology licenses and specialty registrations.
(2) At the time of registration renewal, all hair braiding, hair Wrapping and body Wrapping registrants shall pay all applicable renewal fees and charges as provided in Chapter 61G5-24, F.A.C. Prior to the expiration of their hair braider, hair Wrapper, or body Wrapper registration, all hair braiding, hair Wrapping and body Wrapping registrants shall complete a Board approved HIV/AIDS training course as provided in Section 455.2228, F.S. All HIV/AIDS training courses shall comply with the requirements as set forth in Rule 61G5-18.011, F.A.C.

61G5-31.006 Practice of Hair Braiding, Hair Wrapping and Body Wrapping Pending Approval of Registration.
(1) An applicant for registration as a hair braider shall be eligible to practice hair braiding, and an applicant for registration as a hair Wrapper shall be eligible to practice hair Wrapping and an applicant for registration as a body Wrapper shall be eligible to practice body Wrapping pending the approval of his or her application for registration provided the individual has previously submitted the following to the Department:
(a) A properly completed registration application;
(b) Payment of all applicable fees for initial registration as set forth in Chapter 61G5-24, F.A.C.; and
(c) Proof of successful completion of a Board approved hair braiding, hair wrapping or body Wrapping course as defined in Rule 61G5-31.004, F.A.C.
(2) Upon notification that his or her application is complete, an applicant for registration as a hair braider, hair Wrapper or body Wrapper is eligible to practice hair braiding, hair wrapping and body wrapping pending the approval of his or her application for registration.
(3) Applicants wishing to perform hair braiding, hair Wrapping or body Wrapping services under this exception in a licensed cosmetology or specialty salon shall, prior to beginning the performance of hair braiding, hair Wrapping or body Wrapping services in the salon, provide to the cosmetology or specialty salon license holder or his or her representative a copy of the completed application for registration as a hair braider, hair Wrapper, or body Wrapper submitted to the Department by the applicant.

B. Selected FLORIDA ADMINISTRATIVE CODE

2. Florida Administrative Code Chapter 61 Departmental

CHAPTER 61-5
FEES AND UNLICENSED ACTIVITY

61-5.003 Notification and Fees
61-5.007 Disciplinary Guidelines for Unlicensed Activity

61-5.003 (3) Notification and Fees.
(3) In addition to all other fees collected from each licensee, there shall be a $5.00 fee collected both upon initial licensure and license renewal for the purpose of combating unlicensed activity.

61-5.007 Disciplinary Guidelines for Unlicensed Activity.
(1) In imposing disciplinary penalties upon unlicensed persons, the Department of Business and Professional Regulation (hereinafter, “Department”) shall act in accordance with the following disciplinary guidelines and shall impose a penalty
consistent herewith absent the application of aggravating or mitigating circumstances and subject to the provisions of Sections 455.228 and 489.13, F.S.

(2) For the purpose of this rule, the term “license” shall mean the professional license, registration, certificate or certification issued by the Department to authorize the practice of a profession pursuant to a professional practice act administered by the Department.

(3) All penalties established herein are for each count or separate violation found.

(4) For using a professional title or designation without holding the requisite license to do so, the following penalties shall apply:

(a) First violation – $1000 administrative fine;
(b) second violation – $2500 administrative fine; and
(c) Third and subsequent violations – $5000 administrative fine.

(5) For advertising or offering to practice a profession without holding the requisite license to do so, the following penalties shall apply:

(a) First violation – $1500 administrative fine;
(b) second violation – administrative fine; and
(c) Third and subsequent violations – $5000 administrative fine.

(6) For practicing a profession without holding the requisite license to do so, the following penalties shall apply:

(a) First violation – $3000 administrative fine;
(b) second violation – $4000 administrative fine; and
(c) Third and subsequent violations – $5000 administrative fine.

(7) Notwithstanding the foregoing, violations of Section 489.127(1), F.S., may result in the imposition of a $10,000 Administrative fine.

(8) Circumstances which may be considered for the purposes of mitigation or aggravation of the foregoing penalties shall include the following:

(a) Monetary or other damage to the unlicensed person’s customer and/or other persons, in any way associated with the violation, which damage the unlicensed person has not relieved as of the time the penalty is to be assessed.
(b) The severity of the offense.
(c) The danger to the public.
(d) The number of repetitions of offenses.
(e) The number of complaints filed against the unlicensed person.
(f) The length of time the unlicensed person has been engaging in unlicensed activity.
(g) The actual damage, physical or otherwise, to the unlicensed person’s customer.
(h) The deterrent effect of the penalty imposed.
(i) The effect of the penalty upon the unlicensed person’s livelihood.
(j) Any efforts at rehabilitation.
(k) The unlicensed person’s use of an altered license or impersonation of a licensee.

(9) The disciplinary guidelines established by this rule are only applicable to final orders issued by the Secretary of the Department or his/her appointed designee.

CHAPTER 61-6
BIENNIAL LICENSING

CHAPTER 61-6 BIENNIAL LICENSING
61-6.001 Biennial Licensing
61-6.002 Delinquent Status
61-6.003 Inactive Status
61-6.004 Reactivation
COURSE UNIT 4 - Laws and Rules for the Florida Body Wraper

61-6.001 Biennial Licensing.
(1) Pursuant to Section 455.203(1), F.S. 2004, the Department hereby implements a plan for staggered biennial renewal of licenses issued by the Central Intake Unit, The Division of Service Operation and Licensure, the Department on behalf of the boards within the Department and the Department.
(2) The staggered biennial renewal issuance plan does not apply to the renewal of licenses which have a statutory period of one year or less and which do not mature into permanent licenses which would be subject to regular annual renewal.
(3) Biennial period shall mean a period of time consisting of two 12 month years. The first biennial period for the purposes of each board shall commence and continue on the dates specified in the department plan as set forth for each respective profession.
(4) The schedule for biennial license renewal for each respective profession shall be as follows:

<table>
<thead>
<tr>
<th>Cubmetologists &amp; Specialties</th>
<th>ODD YEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group I</td>
<td>October 31</td>
</tr>
<tr>
<td>Group II</td>
<td>October 31</td>
</tr>
<tr>
<td>Cosmetology Salons</td>
<td>November 30</td>
</tr>
</tbody>
</table>

61-6.002 Delinquent Status.
(1) Any license renewal application, which for any reason is not submitted in a timely and complete manner shall revert to delinquent status.
(2) Each application for renewal shall be considered timely filed if the application has been postmarked by the post officer prior to midnight on the date of expiration of the license or has been delivered by the close of business on the date of expiration of the license. If that date falls on a Saturday, Sunday, or legal holiday, the day of expiration shall be the first working day after the expiration date on the license. In order to be complete, the application must have all appropriate spaces filled, be signed by the licensee and include a money order or a sufficiently funded check in the correct amount. Any renewal which does not comply with the above conditions shall become delinquent.

61-6.003 Inactive Status.
A licensee may choose inactive status by filing with the department a written notice, which may be indicated on the renewal form, accompanied by the appropriate fee. Such notice and fee must be received in accordance with subsection 61-6.002(2), Florida Administrative Code, to be timely.

61-6.004 Reactivation.
(1) A delinquent status licensee may apply for active or inactive status any time during the biennial licensure cycle. As defined by rule of the board, or the Department when there is no board, a complete application, the renewal fee, and a delinquent fee shall be required. The license of a delinquent licensee that does not achieve active or inactive status before the end of the current biennial licensure period shall be null, and subsequent licensure will require meeting all the requirements for initial licensure.
(2) A licensee who has inactive status may reactivate at any time by notifying the Department of his/her desire to do so, completing the appropriate form(s), and by paying the current required fees set by appropriate rule, and meeting any other conditions imposed by the board, or Department when there is no board, as required in Section 455.271, F.S.
UNIT 4
Laws and Rules for the Florida Body Wrapper
SECTION REVIEW

28. It is unlawful to practice or attempt to practice body wrapping on a suspended license.
   TRUE   FALSE

29. The Department of Business and Professional Regulations can inspect salons to determine if all requirements have been met.
   TRUE   FALSE

30. Five of the seven members on the Board of Cosmetology must have been licensed cosmetologists for at least 5 years.
   TRUE   FALSE
Participant Course Evaluation

We care about your opinion, and we welcome your contribution. Changes and improvements to the educational courses we provide are based on several factors. A very important element that is considered in making changes to the training material that we provide comes from the feedback we receive from you, the course participant. Please take just a moment to evaluate the training method used in this course and the source material that is contained within, so we may enhancement your learning experience in the future.

On a scale of 1 to 10, 1 to disagree and 10 to completely agree, please rate this course. Circle one only.

1) The course will benefit my work performance. 1 2 3 4 5 6 7 8 9 10
2) I found the information too difficult. 1 2 3 4 5 6 7 8 9 10
3) The course was clear and well organized. 1 2 3 4 5 6 7 8 9 10
4) I would recommend this course to others. 1 2 3 4 5 6 7 8 9 10
5) I found the information to be current. 1 2 3 4 5 6 7 8 9 10
6) I found the instructional method to be effective. 1 2 3 4 5 6 7 8 9 10
7) What changes or additions would you like to see in future continuing education programs?

Add your comments here: ____________________________________________________________

Please enter your comments in the above space, if you need additional space to write please use the note section on the back of the attached payment form.

YOU CAN MAIL OF FAX THIS EVALUATION IN SEPERATELY IF YOU WOULD LIKE TO GIVE US FEEDBACK

THIS FORM IS OPTIONAL BUT WE DO CARE ABOUT WHAT YOU THINK AND WELCOME YOUR REONSE. THE ADDRESS TO MAIL THIS FORM TO SHOULD YOU CHOOSE IS

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