



**Georgia 5 Hour Hair Designer CE Course**  
**Georgia 5 Hour Hair Designer Online CE Course**

**Presented by**  
**ContinuingCosmetology.com**

**Registered with The Office of Secretary of State and Professional Licensing Board**  
**Approved by The Georgia State Board of Cosmetology**  
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Georgia 5 Hour Hair Designer CE Course

**Georgia 5 Hour Hair Designer Online CE Course (5 hours)**

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## ▶ Bloodborne Pathogens

### Introduction

A bloodborne pathogen is a specific cause of disease, such as a virus or bacteria. “Bloodborne” means carried by or in blood and certain other body fluids. AIDS, hepatitis B and C, malaria, and syphilis are examples of diseases that are caused by bloodborne pathogens.

### Objectives

- Discuss bloodborne pathogens,
- Identify two bloodborne pathogens of concern in the workplace,
- Explain how bloodborne pathogens are transmitted,
- List four high risk factors, and
- Discuss the precautions to be used in the workplace.

### ■ What Are Bloodborne Pathogens?

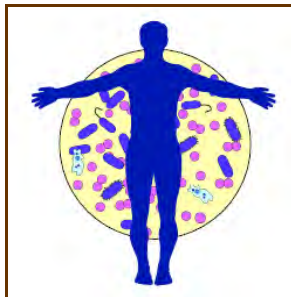


Two types of pathogens of concern in the workplace are:

1. Hepatitis B Virus (HBV)
2. Human Immunodeficiency Virus (HIV)

Hepatitis B is much more contagious than HIV.

### ■ Hepatitis B Virus (HBV)



The HB Virus infects the liver: it's more common than HIV and is a greater risk on the job. Many HBV infected people have no problems or symptoms. Some, however, do develop serious or fatal problems such as cirrhosis, liver cancer, or chronic liver disease. There is a vaccine for HBV which is dispensed in three doses. Any employee at risk should take the vaccine.

### ■ Human Immunodeficiency Virus (HIV)



HIV causes AIDS, it attacks the body's immune system, reducing its ability to fight disease.

To protect yourself against HIV and HBV, avoid direct exposure to infectious blood or body fluids - the prime transmitters of HBV and HIV.

## ■ Signs and Symptoms

### Signs and Symptoms of (HVB)

The symptoms of HVB are much 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 a darkened urine will often occur. However, people who are infected with HBV will often show no symptoms for some time. After exposure it can take 1- 9 months before symptoms become noticeable. Loss of appetite and stomach pain, for example, commonly appear within 1 - 3 months, but can occur as soon as 2 weeks or as long as 6 - 9 months after infection.

### ■ Signs and Symptoms of (HIV)

The symptoms of HIV can vary, but often include weakness, fever, sore throat, nausea, headaches, diarrhea, a white coating on the tongue, weight loss, and swollen lymph glands. If you believe you have been exposed to HBV or HIV, especially if you have experienced any of the signs or symptoms of these diseases, you should consult your physician or doctor as soon as possible.

## ■ Transmission

### Transmission Mediums

Body Fluids that can transmit infection are:

- Blood
- Semen
- Vaginal secretions
- Cerebrospinal fluid (brain and spinal fluid)
- Synovial fluid (lubricating fluid of joints and tendons)
- Pleural fluid (fluid around the lungs)
- Pericardial fluid (fluid around the heart)
- Peritoneal fluid (fluid in the abdomen)
- Amniotic fluid (fluid that surrounds an embryo)
- Saliva (in dental procedures)

### Transmission Routes

HIV and hepatitis are transmitted only in the following ways:

1. Unprotected sexual contact involving the transfer of body fluids such as blood, semen and vaginal secretions.
2. Direct contact with infected blood through needle-sharing, transfusions and needlesticks.
3. Infected mothers can transmit the virus to their babies while in the womb or in breast milk.

**You can't catch HIV through casual contact, such as touching, hugging, being coughed on or sneezed on or working around someone who has AIDS. Family members and health care workers who are constantly around patients with AIDS do not catch AIDS when they use proper precautions.**

## ■ Risk Factors and Behaviors

In light of what we know about the way the HBV and HIV virus are transmitted, risk of exposure to either virus is increased for people who:

- Have unprotected sex or multiple partners.
- Have unprotected sex with an IV drug user.
- Have shared needles while using drugs.
- Have occupational exposure to the blood or body fluids of others.
- Between 1978 and the spring of 1985, received blood or blood products in transfusion.
- Between 1978 and the spring of 1985, received an organ transplant.
- Received artificial insemination from an untested donor.
- Between 1978 and the spring of 1985, received treatment for a clotting disorder.
- Have been exposed to blood or body fluids of a person known to have AIDS or be HIV-positive.
- Are immigrants from high risk areas (southeast Asia, Africa, Southern and Central Europe):
- Have tattoos.
- Are family of infected persons.

### ■ Personal Protective Equipment

"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.

Probably the first thing to do in any situation where you may be exposed to bloodborne pathogens is to ensure you are wearing the appropriate personal protective equipment (PPE). For example, you may have noticed that emergency medical personnel, doctors, nurses, dentists, dental assistants, and other health care professionals always wear latex or protective gloves.

This is a simple precaution they take in order to prevent blood or potentially infectious body fluids from coming in contact with their skin. To protect yourself, it is essential to have a barrier between you and the potentially infectious material.

#### **Rules to Follow:**

- Always wear personal protective equipment in exposure situations.
- Remove PPE that is torn or punctured, or has lost its ability to function as a barrier to bloodborne pathogens.
- Replace PPE that is torn or punctured.
- Remove PPE before leaving the work area.

If you work in an area with routine exposure to blood or potentially infectious materials, the necessary PPE should be readily accessible. Contaminated gloves, clothing, PPE, or other materials should be placed in appropriately labeled bags or containers until it is disposed of, decontaminated, or laundered. It is important to find out where these bags or containers are located in your area before beginning work.

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.

## ■ Gloves

Gloves should be made of latex, nitril, rubber, or other water impervious materials. If glove material is thin or flimsy, double gloving can provide an additional layer of protection. Also, if you know you have cuts or sores on your hands, you should cover these with a bandage or similar protection as an additional precaution before donning your gloves.

You should always inspect your gloves for tears or punctures before putting them on. If a glove is damaged, don't use it! When taking contaminated gloves off, do so carefully.

Make sure you don't touch the outside of the gloves with any bare skin, and be sure to dispose of them in a proper container so that no one else will come contact with them either.



**Always Check your gloves for damage before using them!!**

## Goggles



Anytime there is a risk of splashing or vaporization of contaminated fluids, goggles and/or other eye protection should be used to protect your eyes. Again, bloodborne pathogens can be transmitted through the thin membranes of the eyes so it is important to protect them. Splashing could occur while cleaning up a spill, during laboratory procedures, or while providing first aid or medical assistance.

## Face Shields



Face shields may be worn in addition to goggles to provide additional face protection. A face shield will protect against splashes to the nose and mouth.

## Aprons



Aprons may be worn to protect your clothing and to keep blood or other contaminated fluids from soaking through to your skin. 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.

## ■ Decontamination & Sterilization

All surfaces, tools, equipment and other objects that come in contact with blood or potentially infectious materials must be decontaminated and sterilized as soon as possible. Equipment and tools must be cleaned and decontaminated before servicing or being put back into use.

**Decontamination should be accomplished by using:**

- A solution of 5.25% sodium hypochlorite (household bleach/ Clorox) diluted between 1:10 and 1:100 with water. The standard recommendation is to use at least a quarter cup of bleach per one gallon of water.
- Lysol or some other EPA-registered tuberculocidal disinfectant. Check the label of all disinfectants to make sure they meet this requirement.

If you are cleaning up a spill of blood, you can carefully cover the spill with paper towels or rags, and leave it for at least 10 minutes. This will help ensure that any bloodborne pathogens are killed before you actually begin cleaning or wiping the material up. By covering the spill with paper towels or rags, you decrease the chances of causing a splash when you pour the bleach on it.

If you are decontaminating equipment or other objects, you should leave the disinfectant in place for at least 10 minutes before continuing the cleaning process.

Of course, any materials you use to clean up a spill of blood or potentially infectious materials must be decontaminated immediately, as well. This would include mops, sponges, reusable gloves, buckets, pails, etc.

## Common Questions

### ■ HBV

**What symptoms do I have if I am suffering from hepatitis B infection?**

Many people with HBV do not have any symptoms and feel perfectly well. Occasionally, the hepatitis B infection may become active and make the patient feel ill with nausea, have a loss of appetite, and become jaundiced.

**What kind of outlook can I expect if I have a hepatitis B infection?**

Many patients with the hepatitis B infection can expect to lead a full and normal life. It is most important to regard yourself as a normal individual who happens to be infected with hepatitis B. However, it is important to take precautions not to spread the disease and to get medical checkups regularly.

**Can I get hepatitis from the vaccine?**

No. The hepatitis vaccine is a safe and highly purified vaccine. It does not contain any blood products or living or dead viruses.

**What should be done if the second or third vaccine dose is delayed?**

If the doses are delayed for less than one year, the remaining doses can be resumed to complete the vaccination without the need to restart the vaccination series. If the lapsed doses are more than one year apart, extra doses or restarting of the series may be required for high risk individuals.

### ■ HIV

**What will the AIDS test tell me?**

A positive result indicates the presence of antibodies to HIV, which has been found in people with AIDS.

### **Does a negative test mean that I am not infected?**

Unfortunately, no. Although the test is reliable, there is a “window”- some say it’s six to twelve weeks, some say longer-when you could be developing the antibody, but the test will still be negative. That’s why you need to be retested at six to twelve weeks and again in 6 months.

If you test negative, but still carry HIV, it is still possible to transmit the virus. **Counseling will be provided when you receive your test results whether they are negative or positive.**

### **What happens if I test HIV positive?**

Currently, there is no known therapy to reverse antibody status. If an employee tests HIV positive, we recommend ongoing medical monitoring and possible anti-retroviral (contains RNA for protein productions) drugs.

### **What is the prognosis?**

Research indicates that HIV - positive individuals will eventually develop AIDS. Currently, there is no treatment for AIDS and it is generally believed to be eventually fatal. As discussed previously, there is a vaccine for hepatitis B which is available to all employees at risk.

### **What HIV symptoms should I watch for?**

Almost half of the people who contract HIV experience a flu-like illness six to twelve weeks after exposure. Employees who experience an exposure incident should report any illness that feels like the flu or mononucleosis, especially if it is accompanied by fever, rash, or swollen glands.

### **Will my employer know the results of my test?**

No. The health care professional will give the results of your tests to you only. All records, including test results, relating to an exposure incident are Strictly Confidential.

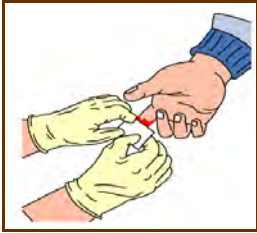
### **Precautions**

**The following precautions should be taken by anyone who has had an exposure incident so that others are not exposed.**

- Inform sexual or needle-sharing partners so they can be tested for the virus.
- Inform physicians and other health care givers so they can protect themselves.
- Don't give any blood, tissue, organs, or semen.
- Remove the organ donor designation from your driver’s license.
- Hold off on getting pregnant until your health care provider says it is okay.
- If you are pregnant, get counseling.
- Don’t breast-feed.
- Be careful not to expose others to your blood or bodily fluids.
- Don’t share personal items such as toothbrushes, razors, etc.
- Use a bleach solution of 1:10, 70% isopropyl alcohol or other EPA-approved germicide to clean up any spills of blood.
- Refrain from sexual activity, or at least take the following **precautions:**
  - Limit the number of partners
  - Use latex condoms from start to finish, even if your partner is HIV-positive.

**Job situations which may result in exposure include:**

- Job duties that bring you into contact with needles or other sharp objects such as glass that might be contaminated with infected blood.



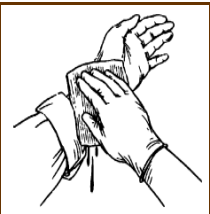
- Providing emergency first-aid assistance to co-workers. It is important that you use universal precautions to prevent becoming infected by contaminated blood. Universal precautions means that all blood and body fluids are considered potentially infectious.

**When first aid measures are needed, make sure that you adhere to the following:**

1. Mouth-to-Mouth Breathing – The safest course of action is to use a breathing mask whenever you are called on to give mouth-to-mouth resuscitation.



2. Controlling Bleeding – To help the victim without infecting yourself (or the victim), wear rubber gloves.



While chance of infection on the job are small, why take unnecessary risks with your life? Following the necessary safety precautions is the best way to minimize risks.

**Summary**

Bloodborne pathogens are a very real risk in the workplace. However, protective measures are in place for employees at risk. To avoid infection of bloodborne pathogens, it is very important to follow all precautions.

Knowing how infection occurs is the first step in preventing the spread of disease. Certain factors and behaviors put employees at risk. Avoid these behaviors as much as you can. Education combined with practicing safe behaviors can save your life.

## ■ Decontamination and Infection Control

### **Introduction**

Infection and disease control is one of the most important aspects of being a professional salon operator or owner. Federal and state laws govern what must be done by operators and owners to ensure the safety of the public and that no germs are allowed to spread uncontrolled.

This unit will provide trainees with the necessary elements to help control dangerous disease-causing germs. By following some very important basic procedures and by providing a clean salon it will be easy to provide your clients with the very best professional care without the fear of your clients becoming infected by a disease agent. It is important to understand that the removal of all disease-causing germs in a salon will be almost impossible, but the control of dangerous levels is the key to providing a safe salon.

### **Objectives**

- Decontamination
- Sanitation, disinfecting, and sterilization
- Use of disinfectant products
- Using disinfectants in the salon
- Salon professionalism.

## ■ **Professional Salon Environment**

Let's take a close look and see what can be done to identify and control the professional salon environment. Things like tables, chairs, walls, and floors are very likely contaminated with a number of germs that may be very serious disease-causing germs. There may be millions of germs present that do not affect humans when contact is made. However, one case of an infected client can send your career and the reputation of your salon downward. By understanding contamination and knowing the proper techniques of decontamination, shop operators and owners can avoid ugly lawsuits and having the business they worked hard to build destroyed.

It is important to understand the more people that enter the salon environment, the greater the chance that new germs will be introduced and reintroduced as a result of the human contact factor. Control over where and what people do before they get to the salon is impossible to monitor, so contamination concerns must be continuous and ongoing.

Your responsibility as a professional to eliminate and control contamination is vital.

*Decontamination* of surfaces and tools used in the salon will allow for a safe and professional experience for the client. Contamination can occur in many forms and on the surface of equipment, implements, and furnishings may not show signs of contamination. Soiled towels, combs, brushes, and even clippers can and more than likely are sources for contamination if not disinfected or sterilized properly.

Sanitation and disinfection are required in the salon to provide a safe environment for clients, co-workers, employees and oneself. Sanitation is the removal of large amounts of living organisms from a surface. By sanitizing tools and other items used in the salon, bacteria and germs are eliminated or lowered to safer levels.

Popular forms of sanitation are described below.

- **The Heat steam of an autoclave** has been used for many years and has proven to be one of the most dependable forms of sanitizing.
- **Hospital-grade disinfectants** are used to sanitize surfaces and tools as well.
- **Quaternary Ammonium Compounds (quats)** are available in liquid or tablet form. Implements should be immersed for 20 minutes or longer to ensure elimination of germs and bacteria.
- **Glutaraldehyde** is a germicidal used to disinfect and sterilize implements that cannot be heat sterilized.
- **Ethyl Alcohol** is used as a disinfectant. In order to remain effective, the strength of ethyl alcohol should be no less than 70%.
- **Bleach (sodium hypochlorite)**, commonly known as house hold bleach, has for many years been utilized as a disinfectant at killing germs. As a result of more advanced techniques now being used, bleach is not the preferred method for decontamination. It is, however, very effective on floors, sinks, and general cleaning around the salon.
- **Ultrasonic Cleaners** are used in some salons but must be used with a **disinfectant**. The advantage of this device is that it may reach tiny crevices that may otherwise be omitted in the cleaning and sanitizing process.
- **Disinfection** is also a part of operating a safe salon. **Disinfection** is used when objects can be damaged due to exposure to extreme heat. Disinfection kills microorganisms with the exception of spores. It is important to understand that disinfectants should never be used on clients.

**Note:** It is important that directions are followed when using disinfectants. When directions are not followed money can be wasted. Furthermore, by not following directions properly, the product that is to be disinfected may not be if a solution is too weak. It is also important to understand that the disinfectant solution always remain at an effective level. In saying this, always remember to wash all products to be disinfected with soap and water. If you attempt to disinfect soiled implements, the solution may become too weak to do an effective job.

### ■ **Safety Precautions**

Remember that disinfectants are industrial strength cleaners that are powerful and can be harmful if used improperly. Never use a disinfectant to clean your hands. This is an unsafe practice and can cause skin disease. You should wear protective equipment such as gloves and safety goggles while mixing chemicals for disinfection control. Use soaking baskets and tongs to insert and remove equipment in disinfectant solutions. Always remember to clearly mark containers that are used for storing disinfectants.

**Look at the following definition.**

Sanitation is the process of reducing the levels of pathogens found on a surface. While the surface may be clean, there are still many microorganisms residing on the surface.

**Material Safety Data Sheet  
(M.S.D.S.)**

Every chemical used in the United States must have an M.S.D.S. report developed by the manufacturer that developed the chemical. The purpose of the M.S.D.S. is to report the product name, active ingredients, directions for use, and safety instructions in case of accidents involving the chemical. The following is a break down of the sections on an M.S.D.S. report.

Product information of the chemical is listed at the very start of the report. The Manufacturer's/Distributor emergency contact number(s) along with product identity, product code number, product use, and hazard classification.

**Section 1** is a listing of the hazardous ingredients found in the product along with specific ingredient codes.

**Section 2** is the characteristics both physical and chemical of the product in general. These characteristics include but are not limited to physical state (liquid or solid), odor appearances like smell and color of product.

**Section 3** is fire and explosion hazard information on the product. Usually the fire/flame point will be listed and the level of danger to which this product will burn. Also, the extinguishing procedures are listed here in case there is a need to control a chemical fire as a result of this product.

**Section 4** is the reactivity data section. This section lists chemical(s), which this product must not come in contact with to ensure the product remains stable.

**Section 5** lists the health hazards and if special precautions need to be followed. This section discusses or lists exposure concerns and first aid procedures to follow in case of an accident.

**Section 6** lists control and protective measures that will need to be followed to ensure safe use of the product or chemical.

**Section 7** are control measures and precautions on the product. Safe handling is necessary to ensure that accidents are minimized. Waste disposal is also listed in this area.

**Section 8** is the regulatory information for the product. A listing of active ingredients that must be reported and a record maintained on file (M.S.D.S).

## **Organizing an M.S.D.S. Notebook**

Suggestions for setting up an M.S.D.S. notebook include:

- Using a three-ring binder that pages can easily be placed in or removed from.
- Highlighting specific areas to identify key aspects of the M.S.D.S. report within the notebook.
- Alphabetizing the M.S.D.S. reports so that locating the sheets will be fast.
- Clearly mark the notebook on all sides to indicate it as the M.S.D.S. notebook.
- Use a white or bright colored notebook so it can be easily identified as the M.S.D.S. Notebook.
- When ordering products for the first time, request the company send you a product sheet (M.S.D.S.) page to add to your notebook.
- Remove any M.S.D.S. reports when the product is no longer used in the salon.
- Establish an emergency contact sheet that will be the very first page in your M.S.D.S. notebook. List the local emergency numbers for your salon area.
- Add the Centers for Disease Control and the National Poison Control Center to the emergency contact page.
- Have a sheet that states your salon operators have read and understand the concept of the M.S.D.S. notebook and have them sign a form stating the information has been read. Keep a copy of this form in their employment file.
- Make sure the M.S.D.S. Notebook is located in a place where all employees have access to it and they are aware of its location.



**Clorox Professional Products Company**  
 1221 Broadway  
 Oakland, CA 94612  
 Tel. (510) 271-7000

# Material Safety Data Sheet

<b>I Product:</b> COMMERCIAL SOLUTIONS® LIQUID-PLUMR® HEAVY DUTY CLOG OPENER	
<b>Description:</b> CLEAR ALKALINE LIQUID WITH A CHLORINE ODOR	
<b>Other Designations</b>	<b>Distributor</b>
Drain Cleaner	Clorox Sales Company 1221 Broadway Oakland, CA 94612
<b>Emergency Telephone Nos.</b>	
For Medical Emergencies call: (800) 446-1014 For Transportation Emergencies Chemtrec (800) 424-9300	

<b>II Health Hazard Data</b>	<b>III Hazardous Ingredients</b>									
<p><b>CORROSIVE</b> to the eyes. Injures eyes, skin and mucous membranes on contact. Harmful if swallowed, nausea, vomiting, and burning sensation of the mouth and throat may occur. No adverse health effects are expected with recommended use. Occasional clinical reports suggest a low potential for sensitization upon exaggerated exposure to sodium hypochlorite if skin damage (e.g. irritation) occurs during exposure. However, clinical tests conducted on intact skin with Liquid-Plumr found no sensitization in the test subjects.</p> <p>Although not expected, heart conditions or chronic respiratory problems such as asthma, chronic bronchitis or obstructive lung disease may be aggravated by exposure to high concentrations of vapor or mist.</p> <p><b>FIRST AID:</b>  <b>EYE CONTACT:</b> Immediately flush eyes with water for 15 minutes. Contact a physician.  <b>SKIN CONTACT:</b> Remove contaminated clothing. Flush skin with water. Contact a physician if irritation or discomfort persists.  <b>INGESTION:</b> Drink a glassful of water. DO NOT induce vomiting. Immediately contact a physician or Poison Control Center.  <b>INHALATION:</b> Remove from exposure to fresh air.</p> <p>HMIS/NFPA: H=3, F=0, R=1, PP=B  <b>HMIS Hazard Scale:</b> 1=slight 2=moderate 3=serious 4=severe</p>	<table border="1"> <thead> <tr> <th>Ingredient</th> <th>Concentration</th> <th>Worker Exposure Limit</th> </tr> </thead> <tbody> <tr> <td>Sodium hypochlorite CAS# 7681-52-9</td> <td>5-10%</td> <td>Not established</td> </tr> <tr> <td>Sodium hydroxide CAS # 1310-73-2</td> <td>0.5-2%</td> <td>2 mg/m<sup>3</sup> - TLV-Ceiling limit<sup>a</sup> 2 mg/m<sup>3</sup> - PEL<sup>b</sup></td> </tr> </tbody> </table> <p><sup>a</sup>TLV-Ceiling limit = ACGIH Threshold Limit Value-Ceiling limit  <sup>b</sup>PEL = OSHA Permissible Exposure Limit-Time Weighted Average</p> <p>None of the materials in this product are on the IARC, OSHA, or NTP carcinogen lists.</p>	Ingredient	Concentration	Worker Exposure Limit	Sodium hypochlorite CAS# 7681-52-9	5-10%	Not established	Sodium hydroxide CAS # 1310-73-2	0.5-2%	2 mg/m <sup>3</sup> - TLV-Ceiling limit <sup>a</sup> 2 mg/m <sup>3</sup> - PEL <sup>b</sup>
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<b>IV Special Protection and Precautions</b>	<b>V Transportation and Regulatory Data</b>
<p><b>Hygienic Practices:</b> Wash skin after direct contact. Do not wear product-contaminated clothing.</p> <p><b>Engineering Controls:</b> Use general ventilation to minimize exposure to vapors.</p> <p><b>Personal Protective Equipment:</b> Wear safety glasses and gloves. The availability of an eye wash and shower is recommended in a manufacturing environment.</p> <p><b>KEEP OUT OF REACH OF CHILDREN.</b> Avoid all splashing, particularly in eyes, on skin and on clothing. Keep children away from basins containing Liquid-Plumr®. Do not use Liquid-Plumr® with plunger or in toilets. Do not use Liquid-Plumr® with ammonia, toilet bowl cleaners or other drain openers. Do not reuse empty container. Rinse container and replace cap before discarding.</p>	<p><b>DOT/ATA/MDG:</b> Not restricted.</p> <p><b>EPA - SARA Title III/CERCLA:</b> This product is regulated under Sections 311/312. This product contains no chemicals regulated under Section 313 and contains sodium hypochlorite and sodium hydroxide which are regulated under Section 304/CERCLA.</p>

<b>VI Spill Procedures/Waste Disposal</b>	<b>VII Reactivity Data</b>
<p><b>Spill Procedures:</b> Absorb and containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed down material. For spills of multiple products, responders should evaluate the MSDS's of the products for incompatibility with sodium hypochlorite. Breathing protection should be worn in enclosed, and/or poorly ventilated areas until hazard assessment is complete.</p> <p><b>Waste Disposal:</b> Dispose of in accordance with all applicable federal, state, and local regulations.</p>	<p>Stable under normal use and storage conditions.</p> <p>Reacts with other household chemicals such as acid toilet bowl cleaners, rust removers, acids, and ammonia-containing products to produce hazardous gases, such as chlorine and other chlorinated compounds.</p>

<b>VIII Fire and Explosion Data</b>	<b>IX Physical Data</b>
<p>Not flammable or explosive. In a fire, cool containers to prevent rupture and release of sodium chlorate.</p>	<p>Boiling point .....~212°F/100°C (decomposes)          Specific gravity .....~1.1          Solubility in Water .....complete          pH .....~13.2</p>

## ■ **Skin, Diseases, Disorders**

### **Introduction**

The flexible, waterproof, tough protective covering known as the skin is the largest organ in the body both by weight and surface area. Skin accounts for approximately 16% of the body's weight.

Healthy skin has a fine texture that is slightly moist, soft, and flexible. Varying in thickness, the skin is thinnest on the eyelids and thickest on the palms and soles. A callous can be caused by continuous friction on any part of the skin.

The skin has appendages that include the hair, sweat and oil glands, and the nails. Composed of the substance known as keratin, this protein gives the skin its protective ability. The skin is slightly acidic in pH, which enables good immunity responses to intruding organisms.

Normally the skin separates the internal environment from the external. However skin diseases and infections can invade that barrier. For this reason, a thorough understanding of the histology of the skin and its diseases and disorders is needed for a better position to give clients professional advice.

### **Objectives**

- Explain the structure and the composition of the skin.
- Identify the functions of the skin.
- Describe terms relating to skin disorders.
- Recognize which skin diseases/disorders may be dealt with in the salon and which should be referred to a physician.
- Identify online dermatology resources.

## ■ **Anatomy and Histology of the Skin**

The two major divisions of the skin are the dermis and the epidermis. The outermost layer of the skin is the epidermis that is composed of sheets of dead cells that serve as the major waterproof barrier to the environment.

The epidermis is the visible layer of skin. This layer contains numerous nerve endings, but no blood vessels. The human epidermis is renewed every 15-30 days.

The epidermis consists of many layers. The stratum corneum is the outer layer that is often called the horny layer. Cells are continually being shed and replaced. This layer of skin for the most part is dead – it is composed of cells that are almost pure protein.

The stratum lucidum consists of translucent cells through which light can penetrate.

The stratum granulosum, known as the granular layer, consists of cells that resemble granules. These cells are transforming into a harder form of protein.

The stratum mucosum is also known as the basal cell layer. Basal cells are continuously being reproduced. It is the deepest layer of the epidermis.

This layer also contains melanocytes that produce the coloring matter known as melanin and determines skin color. Melanocytes also react to ultraviolet rays to darken the skin for added protection.

The middle layer, the dermis, provides a tough, flexible foundation for the epidermis. In the dermis, body temperature is regulated by sweat glands and blood vessels. It also contains arrector pilli muscles, papillae, and hair follicles. Nerve endings send sensations of pain, itching, touch, and temperature to the brain. The skin is moisturized by oil glands that produce sebum.

The dermis consists of two layers. The papillary layer connects the dermis to the epidermis. Tactile corpuscles are nerve fiber endings that contain looped capillaries. Tactile corpuscles are responsible for the sense of touch. The papillary layer also contains some of the melanin.

The reticular layer is the deepest layer of the dermis. It contains fat cells, blood vessels, lymph vessels, oil glands, sweat glands, hair follicles, and arrector pilli muscles. The reticular layer supplies the skin with oxygen and nutrients.

Subcutaneous tissue is the fatty layer found below the dermis. It is also called the adipose or the subcutis tissue. It varies in thickness according to age, sex, and general health of the individual. The subcutaneous tissue contains fats for energy, gives smoothness and contour to the body, and acts as a protective cushion for the outer skin. Arteries and lymphatics maintain circulation to the body.

### ■ Nerves of the Skin

Sensory nerves are receptors and send messages to the brain causing reactions to heat, cold, touch, pressure, and pain.

Motor nerve fibers, attached to the hair follicles, are distributed to the arrector pilli muscles which may cause goose flesh when you are frightened or cold.

The secretory nerve fibers regulate the excretion of perspiration from the sweat glands and regulate the flow of sebum to the surface of the skin.

### ■ Glands of the Skin

There are two types of duct glands contained in the skin that pull out minerals from the blood to create new substances. The sudoriferous glands are the sweat glands and the sebaceous glands are the oil glands.

Sweat glands excrete perspiration. This secretion is odorless when excreted, but in a short period of time produces an offensive odor due to the bacteria on the skin's surface feeding on the fats of its secretion. Perspiration is controlled by the nervous system. About 1-2 pints of liquid containing salts are excreted daily through the sweat pores in the skin. The sweat glands consist of a coiled base or fundus and a tube-like duct that ends at the skin surface forming the pores. Sweat glands are more numerous on the palms, soles, forehead, and armpits. Body temperature is regulated by the sweat glands that also aid in the elimination of waste.

Oil glands secrete sebum through little sacs whose ducts open in to the hair follicles. These glands are found in all parts of the body with the exception of the palms and soles. The oily substance produced by the oil glands is called sebum. Sebum lubricates the skin and preserves the pliability of the hair. When the duct becomes clogged with hardened sebum, a blackhead is formed.

## ■ **Nourishment of the Skin**

Blood and lymph circulate through the skin providing nourishment essential for growth and repair of the skin, hair, and nails.

## ■ **Functions of the Skin**

The major functions of the skin are sensation, heat regulation, absorption, protection, excretion, and secretion. The functions of the skin can easily be remembered using the acronym: SHAPES

S – ensation – response to heat, cold, pressure, and pain

H – eat regulation – maintains body temperature of 98.6

A – bsorption - substances can enter the body through the skin and affect it to a minor degree

P – rotection – from bacterial invasion

E – xcretion – sweat glands excrete perspiration

S – ecretion - sebum is secreted by the sebaceous glands

## ■ **Terminology**

<b>Dermatology</b>	study of the skin, its nature, functions, and treatment
<b>Dermatologist</b>	a medical skin specialist
<b>Disease</b>	a pathological condition of the body, organ, or mind making it incapable of carrying on normal functions
<b>Disorder</b>	abnormal condition usually not contagious
<b>Immunity</b>	freedom from or resistance to disease
<b>Integumentary system</b>	one of the 10 systems of the body; pertains to the skin, its appendages and functions
<b>Pathology</b>	study of disease
<b>Etiology</b>	study of the causes of diseases
<b>Trichology</b>	study of hair
<b>Diagnosis</b>	recognition of a disease by its symptoms
<b>Prognosis</b>	foretelling of the probable course of a disease
<b>Objective symptom</b>	visible symptom
<b>Subjective symptom</b>	symptom that can be felt by client, but not by observation
<b>Acute</b>	rapid onset with severe symptoms of short duration
<b>Chronic</b>	long duration, usually mild, but often recurring

<b>Infectious</b>	invasion of body tissue by bacteria that cause disease
<b>Contagious</b>	communicable; by contact
<b>Occupational</b>	due to certain kinds of employment
<b>Seasonal</b>	influenced by weather
<b>Parasitic</b>	caused by vegetable or animal parasites
<b>Pathogenic</b>	produced by disease causing bacteria
<b>Systemic</b>	due to over or under functioning of the internal glands
<b>Venereal disease</b>	acquired by sexual contact
<b>Epidemic</b>	emergence of a disease that affects a large number of people simultaneously
<b>Allergy</b>	reaction due to extreme sensitivity to normally harmless substances
<b>Inflammation</b>	skin disorder characterized by redness, pain, edema, and heat
<b>Rhytidectomy</b>	face lift
<b>Blepharoplasty</b>	eyelid surgery
<b>Chemical peel</b>	chemical solution applied to skin areas causing a mild, controlled burn of the skin
<b>Rhinoplasty</b>	plastic surgery of the nose
<b>Mentoplasty</b>	chin surgery
<b>Dermabrasion</b>	sandblasting irregularities of the skin
<b>Injectable fillers</b>	tiny injections of collagen to soften wrinkles
<b>Retin-A</b>	a prescription cream used in the treatment of acne

### **Diseases and Disorders**

In a salon, you will come in contact with diseases and disorders of the skin and its appendages: the hair and nails. Your license requires you to be responsible for the recognition of potentially infectious diseases. Some disorders can be treated in cooperation with and under the supervision of a physician.

CAUTION: DO NOT TREAT OR REMOVE  
HAIR FROM MOLES.

WARNING: NEVER TRY TO DIAGNOSE A DISEASE;  
ALWAYS REFER TO A PHYSICIAN.

NOTE: COLOR CHANGES, A CRACK ON THE SKIN, A TYPE OF THICKENING, OR ANY DISCOLORATION, RANGING FROM SHADES OF RED TO BROWN AND PURPLE TO ALMOST BLACK, MAY BE SIGNS OF DANGER AND SHOULD BE EXAMINED BY A DERMATOLOGIST.

### ■ Skin Conditions /Descriptions

<b>Condition/ Disease/Disorder</b>	<b>Description</b>
<b>Pigmented Lesions</b>	Lentigo small, yellow to brown spots
<b>Chloasma</b>	moth patches, liver spots = increased deposits of pigment
<b>Naevus</b>	birthmark (portwine or strawberry) small-large malformation of skin due to pigmentation or dilated capillaries
<b>Leucoderma</b>	abnormal light patches due to congenital defective pigmentations
<b>Vitiligo</b>	acquired condition of leucoderma-may affect skin or hair
<b>Albinism</b>	congenital absence of melanin pigment
<b>Stain</b>	abnormal, brown, skin patches having a circular & irregular shape

### ■ Disorders of the Sebaceous Glands

<b>Comedones</b>	blackheads, a worm-like mass of keratinized cells & hardened sebum
<b>Milia</b>	whiteheads, an accumulation of dead, keratinized cells and sebaceous matter trapped beneath the skin
<b>Acne Simplex</b>	chronic inflammatory disorder usually related to hormonal changes & overactive sebaceous glands
<b>Acne Vulgaris</b>	acne-pimples
<b>Acne Rosacea</b>	chronic inflammatory congestion of the cheeks & nose

<b>Seborrhea/Seborrhea</b>	overactive sebaceous glands- <b>Oleosa = Oily Dandruff</b> often the basis of acne
<b>Steatoma Asteatosis</b>	wen or sebaceous cyst (subcutaneous tumor) ranges in size from a pea to an orange dry, scaly skin characterized by absolute or partial deficiency of sebum
<b>Furuncle</b>	boil-a subcutaneous abscess that fills with pus
<b>Cysts</b>	sac-like, elevated (usually round) area, contains liquid or semi-liquid substance-when a follicle ruptures deep within the dermis & irritating oil & dead cells seep into the surrounding tissues-often cause acne pits
<b>Pimples</b>	follicle filled with oil, dead cells, & bacteria-inflammation causes white blood cells to rush to fight bacteria creating a pus

### ■ Disorders of the Sudoriferous Glands

<b>Bromidrosis</b>	osmidrosis=foul-smelling perspiration
<b>Anhidrosis</b>	lack of perspiration
<b>Hyperhidrosis</b>	excessive perspiration
<b>Miliaria Rubra</b> caused by	prickly heat-eruptions of small red vesicles accompanied by burning & itching- excessive heat

### ■ Hypertrophies

<b>Keratoma</b>	callus-superficial, round, thickening of the epidermis caused by friction (inward growth is called a corn)
<b>Mole</b>	a small, brown spot-believed to be inherited-may be flat or deeply seated-pale tan-brown or bluish black
<b>Verruca</b>	wart, a viral infection of the epidermis-benign
<b>Skin Tag</b>	bead-like fibrous tissue that stands away from the flat surface-often a dark color
<b>Polyp</b>	growth that extends from the surface or may also grow with the body

## ■ Inflammations

- Eczema** dry or moist lesions accompanied by itching, burning, & various other unpleasant sensations-usually red-blistered, & oozing
- Psoriasis** rarely on the face, lesions are round, dry patches covered with coarse, silvery scales-if irritated, bleeding points occur- may be spread to larger area-not contagious
- Herpes Simplex/**  
**Herpes Zoster = Shingles** fever blisters/cold sores-single group of vesicles on a red swollen base

## ■ Allergy Related Dermatitis

- Dermatitis Venenata** allergy to ingredients in cosmetics, etc.- protection is the prevention-gloves, etc.
- Dermatitis Medicamentosa** dermatitis that occurs after an injection of a substance
- Urticaria** hives-inflammation caused by an allergy to specific drugs/foods

## ■ Primary Skin Lesions

- Macule** small, discolored spot or patch on the skin's surface, neither raised nor sunken-ex: freckles
- Papule** small elevated pimple containing no fluid, but may have pus note: yellow or white fatty papules around the eyes indicate an elevated cholesterol level-refer to a physician (xanthelasma).
- Wheal** itchy, swollen lesion that lasts only a few hours-ex: mosquito bite
- Tubercle** solid lump larger than a papule- projects above the skin or lies with-sized from pea to hickory nut
- Tumor** external swelling-varies in size, shape & color
- Vesicle** blister with clear fluid-lie within or just beneath the epidermis-ex: poison ivy
- Bulla** blister containing a watery fluid-larger than a vesicle
- Pustule** elevation with inflamed base, containing pus

## ■ Secondary Skin Lesions

<b>Scale</b>	accumulation of epidermal flakes, dry or greasy-ex: abnormal dandruff
<b>Crust</b>	accumulation of serum & pus- mixed with epidermal material- ex: scab
<b>Excoriation</b>	abrasion produced by scratching or scraping-ex: raw surface after injury
<b>Fissure</b>	crack in the skin penetrating into the dermis
<b>Ulcer</b>	open lesion on skin or mucous membrane, accompanied by pus & loss of skin depth

## ■ Acne Scars

<b>Ice Pick Scar</b>	large, visible, open pores that look as if the skin has been jabbed with an ice pick-follicle always looks open-caused by deep pimple or cyst
<b>Acne Pit Scar</b>	slightly sunken or depressed appearance-caused by pimples/systs that have destroyed the skin & formed scar tissue
<b>Acne Raised Scar</b>	lumpy mass of raised tissue on the surface of the skin-caused where cysts have clumped together

## ■ Contagious Disorders

Tinea [ringworm, due to fungi (plant or vegetable parasites) with scaling]

Tinea Unguium - Ringworm of Nails

Tinea Capitis - Ringworm of Scalp

Tinea Sycosis - Barber's Itch

Tinea Favosa - Honeycomb Ringworm

Athlete's Foot - Ringworm of Feet - patch of little small reddened blisters that spread outward and heal in the middle

CAUTION! NEVER ATTEMPT TO DIAGNOSE BUMPS, LESIONS, ULCERATIONS, OR DISCOLORATIONS AS SKIN CANCER, BUT YOU SHOULD BE ABLE TO RECOGNIZE THE CHARACTERISTICS OF SERIOUS SKIN DISORDERS AND SUGGEST THAT THE CLIENT SEE A PHYSICIAN OR DERMATOLOGIST.
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## ■ Extremely Serious Disorders-Skin Cancers

<b>Basal Cell Carcinoma</b>	least malignant-most common skin cancer-characterized by light or pearly nodules & visible blood vessels
<b>Squamous Cell Carcinoma</b>	scaly, red papules- blood vessels are not visible-more serious than basal cell
<b>Malignant Melanoma</b>	most serious-characterized by dark brown, black, or discolored patches on the skin
<b>Tumor</b>	abnormal growth of swollen tissue

## ■ Nail Diseases/Disorders

<b>Onychophagy</b>	nail biting
<b>Onychogryposis</b>	overcurvature of the nail- clawlike
<b>Pterygium</b>	sticky overgrowth of the cuticle
<b>Eggshell Nail</b>	extremely thin nail
<b>Leuconychia</b>	white spots under the nail plate
<b>Paronychia</b>	bacterial inflammation of tissue (perionychium) around the nail
<b>Tinea Corporis</b>	ringworm of the hand
<b>Tinea Pedis</b>	ringworm of the foot
<b>Aggnail</b>	hangnail
<b>Onychia</b>	an inflammation somewhere in the nail
<b>Onychocyanosis</b>	blue nail (usually caused by poor circulation)
<b>Hematoma Nail</b>	bruised nail (usually caused by a hammer or slammed door)
<b>Tinea Unguium</b>	onychomycosis-ringworm of the nail
<b>Onychorrexia</b>	split or brittle nails with a series of lengthwise ridges
<b>Beau's Lines</b>	ridges/corrugations/furrows
<b>Onychatrophia</b>	atrophy or wasting away of the nail

<b>Onychocryptosis</b>	ingrown nail
<b>Onychauxis</b>	overgrowth of the nail plate
<b>Onychosis</b>	any nail disease
<b>Onychophosis</b>	accumulation of horny layers of epidermis under the nail

### ■ Hair Disease/Disorders

<b>Pityriasis Capitis Simplex</b>	dry dandruff
<b>Pityriasis Capitis Steatoids Seborrhea Oleosa</b>	= <b>Oily Dandruff</b> greasy dandruff
<b>Trichoptilosis</b>	split hair ends
<b>Trichorrehexis Nodosa</b>	knotted
<b>Tinea Favosa</b>	honeycomb ringworm
<b>Tinea Capitis</b>	ringworm of the scalp
<b>Tinea Sycosis</b>	barber's itch
<b>Androgenetic Alopecia</b>	common hereditary hair loss
<b>Alopecia Adnata</b>	loss of hair shortly after birth
<b>Alopecia Areata</b>	hair loss in patches
<b>Alopecia Follicularis</b>	hair loss caused by inflammation of hair follicles
<b>Alopecia Prematura</b>	hair loss early in life
<b>Alopecia Senilis</b>	hair loss from old age
<b>Alopecia Totalis</b>	hair loss from entire scalp
<b>Alopecia Universalis</b>	hair loss from entire body
<b>Traction/Traumatic</b>	patchy hair loss
<b>Alopecia</b>	sometimes due to repetitive traction on the hair by pulling or twisting

<b>Postpartum Alopecia</b>	temporary hair loss at the conclusion of pregnancy
<b>Telogen Effluven</b>	hair loss during the telogen phase of the hair growth cycle
<b>Canities</b>	gray hair
<b>Pediculosis Capitis</b>	headlice
<b>Monilithrix</b>	beaded hair
<b>Fragilitis Crinium</b>	brittle hair
<b>Hirsuties/Hypertrichosis</b>	superfluous hair, excessive
<b>Scabies</b>	contagious disease caused by the itch mite
<b>Impetigo/Infantigo</b>	highly contagious bacterial infection, usually staphylococcal
<b>Discoid Lupus</b>	chronic autoimmune
<b>Erythematosus (DLE)</b>	disorder, causes red often scarring plaques, hair loss, & internal effects
<b>Keloids</b>	forms when excess collagen forms at the site of a healing scar-overhealing
<b>Asteatosis</b>	excessive dry skin

#### Websites: Online Dermatology Resources

<http://tray.dermatology.uiowa.edu/DermImag.htm>  
<http://www.medic.mie-u.ac.jp/derma/world/worldd1.html>  
<http://www.skin-information.com/>  
<http://www.skin-disease.com/>  
<http://www.skin-cancers.net/>  
<http://www.age-spot.com/>  
<http://www.i-wrinkle.com/>  
<http://www.i-wrinkle.com/>  
<http://www.asds-net.org> American Society of Dermatologic Surgery  
<http://www.aad.org> American Academy of Dermatology

## ■ Skin Conditions /Descriptions

**WARNING: NEVER TRY TO DIAGNOSE A DISEASE; ALWAYS REFER TO A PHYSICIAN.**

**NOTE:** COLOR CHANGES, A CRACK ON THE SKIN, A TYPE OF THICKENING, OR ANY DISCOLORATION, RANGING FROM SHADES OF RED TO BROWN AND PURPLE TO ALMOST BLACK, MAY BE SIGNS OF DANGER AND SHOULD BE EXAMINED BY A DERMATOLOGIST.

**CAUTION: DO NOT TREAT OR REMOVE HAIR FROM MOLES.**

## ■ Condition/Disease/Disorder

## Description

### Pigmented Lesions

#### Lentigo

small, yellow to brown spots



#### Chloasma

moth patches, liver spots = increased deposits of pigment



**Naevus**

birthmark (portwine or strawberry) small-large malformation of skin due to pigmentation or dilated capillaries

**Leucoderma**

abnormal light patches due to congenital defective pigmentations



**Vitiligo**

acquired condition of leucoderma-may affect skin or hair



**Albinism**

congenital absence of melanin pigment

**Stain**

abnormal, brown, skin patches having a circular & irregular shape

## ■ Disorders of the Sebaceous Glands

### Comedones

blackheads, a worm-like mass of keratinized cells & hardened sebum



### Milia

whiteheads, an accumulation of dead, keratinized cells and sebaceous matter trapped beneath the skin



### Acne Simplex

chronic inflammatory disorder usually related to hormonal changes & overactive sebaceous glands



**Acne Vulgaris**

acne-pimples

**Acne Rosacea**

chronic inflammatory congestion of the cheeks & nose



**Seborrhea/Seborrhea**  
Oleosa = Oily Dandruff

overactive sebaceous glands-often the basis of acne

**Steatoma**

wen or sebaceous cyst (subcutaneous tumor)  
ranges in size from a pea to an orange



**Asteatosis**

dry, scaly skin characterized by absolute or partial  
deficiency of sebum

**Furuncle**

boil-a subcutaneous abscess that fills with pus



## **Cysts**

sac-like, elevated (usually round) area, contains liquid or semi-liquid substance-when a follicle ruptures deep within the dermis & irritating oil & dead cells seep into the surrounding tissues often cause acne pits



## **Pimples**

follicle filled with oil, dead cells, & bacteria inflammation causes white blood cells to rush to fight bacteria creating a pus



## **■ Disorders of the Sudoriferous Glands**

Bromidrosis	osmidrosis=foul-smelling perspiration
Anhidrosis	lack of perspiration
Hyperhidrosis	excessive perspiration
Miliaria Rubra	prickly heat-eruptions of small red vesicles accompanied by burning & itching-caused by excessive heat

## ■ Hypertrophies

**Keratoma** callus-superficial, round, thickening of the epidermis caused by friction (inward growth is called a corn)

**Mole** a small, brown spot-believed to be inherited may be flat or deeply seated-pale tan-brown or bluish black



**Verruca** wart, a viral infection of the epidermis-benign



**Skin Tag** bead-like fibrous tissue that stands away from the flat surface-often a dark color



**Polyp**

growth that extends from the surface or may also grow with the body

**Inflammations**

**Eczema**

dry or moist lesions accompanied by itching, burning, & various other unpleasant sensations usually red-blistered, & oozing



**Psoriasis**

rarely on the face, lesions are round, dry patches covered with coarse, silvery scales-if irritated, bleeding points occur-may be spread to larger area-not contagious



**Herpes Simplex/  
Herpes Zoster = Shingles**

fever blisters/cold sores-single group of vesicles on a red swollen base



Herpes Simplex



Herpes Zoster

## ■ Allergy Related Dermatitis

### **Dermatitis Venenata**

allergy to ingredients in cosmetics, etc.-  
protection is the prevention-gloves, etc.



### **Dermatitis Medicamentosa**

dermatitis that occurs after an injection of a substance



### **Urticaria**

hives-inflammation caused by an allergy to  
specific drugs/foods

## ■ Primary Skin Lesions

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small, discolored spot or patch on the skin's  
surface, neither raised nor sunken-ex: freckles



**Papule**

small elevated pimple containing no fluid, but may have pus note: yellow or white fatty papules around the eyes indicate an elevated cholesterol level-refer to a physician (xanthelasma).



**Wheal**

itchy, swollen lesion that lasts only a few hours: mosquito bite



**Tubercle**

solid lump larger than a papule-projects above the skin or lies with-sized from pea to hickory nut

**Tumor**

external swelling-varies in size, shape & color

**Vesicle**

blister with clear fluid-lie within or just beneath the epidermis-ex: poison ivy



**Bulla**

blister containing a watery fluid-larger than a vesicle



**Pustule**

elevation with inflamed base, containing pus

■ **Secondary Skin Lesions**

**Scale**

accumulation of epidermal flakes, dry or greasy: abnormal dandruff

**Crust**

accumulation of serum & pus-mixed with epidermal material-ex: scab

**Excoriation**

abrasion produced by scratching or scraping-ex: raw surface after injury

**Fissure**

crack in the skin penetrating into the dermis



## Ulcer

open lesion on skin or mucous membrane, accompanied by pus & loss of skin depth

## ■ Acne Scars

### Ice Pick Scar

large, visible, open pores that look as if the skin has been jabbed with an ice pick-follicle always looks open-caused by deep pimple or cyst



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slightly sunken or depressed appearance-caused by pimples/systs that have destroyed the skin & formed scar tissue



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lumpy mass of raised tissue on the surface of the skin-caused where cysts have clumped together



## ■ Contagious Disorders

Tinea  
Tinea Capitis - Ringworm of Scalp  
Tinea Sycosis - Barber's Itch  
Tinea Favosa - Honeycomb Ringworm  
Tinea Unguium - Ringworm of Nails  
Athlete's Foot - Ringworm of Feet

ringworm, due to fungi  
(plant or vegetable  
parasites) -small reddened  
patch of little blisters that  
spread outward and heal in  
the middle with scaling



**CAUTION! NEVER ATTEMPT TO DIAGNOSE BUMPS, LESIONS, ULCERATIONS, OR DISCOLORATIONS AS SKIN CANCER, BUT YOU SHOULD BE ABLE TO RECOGNIZE THE CHARACTERISTICS OF SERIOUS SKIN DISORDERS AND SUGGEST THAT THE CLIENT SEE A PHYSICIAN OR DERMATOLOGIST.**

## ■ Extremely Serious Disorders-Skin Cancers

### **Basal Cell Carcinoma**

least malignant-most common skin cancer characterized by light or pearly nodules & visible blood vessels



**Squamous Cell Carcinoma** scaly, red papules-blood vessels are not visible more serious than basal cell



### **Malignant Melanoma**

most serious-characterized by dark brown, black, or discolored patches on the skin



**Tumor**

abnormal growth of swollen tissue

■ **Nail Diseases/Disorders**

**Onychophagy**

nail biting



**Onychogryposis**

overcurvature of the nail-clawlike



**Pterygium**

sticky overgrowth of the cuticle

**Eggshell Nail**

extremely thin nail

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white spots under the nail plate



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bacterial inflammation of tissue (perionychium) around the nail

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ringworm of the hand



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an inflammation somewhere in the nail



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split or brittle nails with a series of lengthwise ridges



**Beau's Lines**

ridges/corrugations/furrows



**Onychatrophia**

atrophy or wasting away of the nail



**Onychocryptosis**

ingrown nail



**Onychauxis**

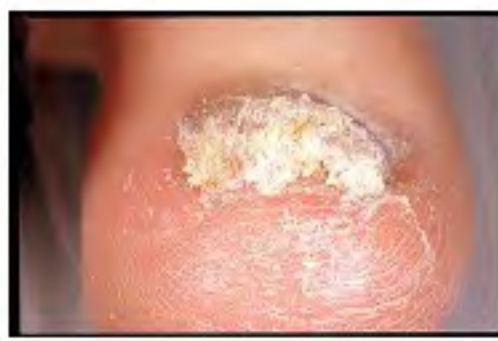
overgrowth of the nail plate

**Onychosis**

any nail disease

**Onychophosis**

accumulation of horny layers of epidermis under the nail



## ■ Hair Disease/Disorders

**Pityriasis Capitis Simplex**                      dry dandruff

**Pityriasis Capitis Steatoids Seborrhea Oleosa = Oily Dandruff**                      greasy dandruff

**Trichoptilosis**                      split hair ends

**Trichorrehexis Nodosa**                      knotted  
**Tinea Favosa**                      honeycomb ringworm

**Tinea Capitis**                      ringworm of the scalp



**Tinea Sycosis**                      barber's itch

**Androgenetic Alopecia**                      common hereditary hair loss

**Alopecia Adnata**                      loss of hair shortly after birth

**Alopecia Areata**                      hair loss in patches



**Alopecia Follicularis**                      hair loss caused by inflammation of hair follicles



<b>Alopecia Prematura</b>	hair loss early in life
<b>Alopecia Senilis</b>	hair loss from old age
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<b>Scabies</b>	contagious disease caused by the itch mite



**Impetigo/Infantigo**

highly contagious bacterial infection, usually staphylococcal



**Discoid Lupus Erythematosus (DLE)**

chronic autoimmune disorder, causes red often scarring plaques, hair loss, & internal effects



**Keloids**

forms when excess collagen forms at the site of a healing scar-overhealing

**Asteatosis**

excessive dry skin

**■ Appendix A**  
**Georgia State Board of Cosmetology**  
**Glossary of Legal Definitions**

**Nail Technician:**

A person who, for compensation, trims, files, shapes, decorates, applies sculptured or otherwise artificial nails, or in any way cares for the nail of another person.

**Esthetician or Esthetics Operator:**

A person who, for compensation, engages in any one or a combination of the following practices, esthetics, or cosmetic skin care:

- Massaging the face or neck of a person
- Trimming eyebrows
- Dyeing eyelashes or eyebrows
- Waxing, stimulating, cleansing, or beautifying the face, neck, arms, or legs of a person by any method with the aid of the hands or any mechanical or electrical apparatus or by the use of a cosmetic preparation.

Such practices of esthetics shall not include the diagnosis, treatment, or therapy of any dermatological condition.

## **Cosmetologist**

Any person who performs any one or more of the following services for compensation:

- Cuts or dresses the hair
- Gives facial or scalp massage or facial and scalp treatment with oils or creams and other preparations made for this purpose, either by hand or mechanical appliance
- Singes and shampoos the hair, dyes the hair, or does permanent waving of the hair
- Braids the hair by hair weaving, interlocking, twisting, plaiting, wrapping by hand, chemical or mechanical devices, or using any natural or synthetic fiber for extensions to the hair
- Performs nail care, pedicure, or manicuring services as defined in Nail Technician
- Performs the services of an esthetician as defined in Esthetician or Esthetics Operator

Such person shall be considered as practicing the occupation of a cosmetologist within the meaning of this code

## **Master Cosmetologist:**

A cosmetologist who is possessed of the requisite skill and knowledge to perform properly all the services mentioned under Cosmetologist above.

## **■ Appendix B**

### **Georgia State Board of Cosmetology Sanitary Regulations For Salons And Schools**

1. All establishments wherein cosmetology, nail care, or esthetics is practiced or taught within the State of Georgia must provide suitable quarters equipped to give adequate services subject to inspection by constituted representatives of the Georgia State Board of Cosmetology.
2. Separate space must be provided for a cosmetology, esthetic, or nail care establishment. The use of any such space for sleeping, dining or any other domestic purpose is prohibited.
3. Space used for a cosmetology, esthetic, or nail care establishment must be separated by tight, ceiling high partitions from residence rooms.
4. Each establishment must have proper toilet and plumbing facilities and adequate supply of hot and cold running water in accordance with the recognized health standards.
5. Walls, ceilings, floors, furniture and equipment must be free from dust and debris.
6. Shampoo bowls and sinks, and service sinks must be thoroughly cleansed and sanitized.
7. Towels, after being used once, must be placed in a covered container until properly laundered.

8. The use of any article that is not properly cleansed and sanitized is prohibited.
9. All waste material must be removed daily. Garbage shall be stored in a covered washable container and shall not be left in the establishment overnight.
10. Professional implements and tools shall be cleansed thoroughly with soap and water and sanitized by using recommended disinfectants approved by the Georgia Department of Human Resources, Environmental Health Section.
11. Creams, lotions and other cosmetics for use on patrons must be kept in sanitary, closed containers.
12. It shall be unlawful to allow pets in a cosmetology, esthetic, or nail care establishment. 130-5-.08 Recommended Disinfection Approved by the Georgia Department of Human Resources, Environmental Health Section.
  - (1) Wet Disinfection Standards.
    - (a) All tools and implements, except those which come in contact with blood or body fluids, must be disinfected by complete immersion in any EPA registered, hospital grade, bactericidal, virucidal, and fungicidal disinfectant that is prepared and used according to the manufacturer's directions.
    - (b) All tools and implements which come in contact with blood or body fluids must be disinfected by complete immersion in any EPA registered, hospital grade, and tuberculocidal disinfectant that is prepared and used according to the manufacturer's directions.
  - (2) Dry Disinfection Standards
    - (a) After thoroughly washing in detergent and warm water, items may be disinfected, using ultra violet ray exposures according to the ultra violet equipment supplier's recommendations, provided that lamps are replaced and dates of replacement recorded as indicated by test results.
  - (3) Storage Standards.
    - (a) Disinfected implements must be stored in a disinfected, dry and covered container (Any EPA Approved dry disinfectant may be used)

**■ Appendix C**  
**Georgia State Board of Cosmetology**  
**Sanitation and Health Code**

**Shampoo Equipment. Amended**  
**130-5-.01**

130-5-.01 Shampoo Equipment. Amended. Shampoo bowls must be thoroughly cleansed and kept clean. Authority O.C.G.A Sec. 43-10-6. History. Original Rule entitled "Pets" was filed and effective on June 30, 1965. Amended: Rule repealed and a new Rule entitled "Shampoo Equipment" adopted. Filed February 25, 1986; effective March 17, 1986.

## **Linens**

### **130-5-.02**

130-5-.02 Linens. Towels, after being used once, must be placed in a container until properly laundered. Clean towels must be kept in a closed cabinet.

Authority O.C.G.A Sec. 43-10-6. History. Original Rule entitled "Linens" was filed on February 25, 1986; effective March 17, 1986.

## **Sterilization. Amended**

### **130-5-.03**

130-5-.03 Sterilization. Amended. The use on any patron of any article that is not properly cleansed and sterilized is prohibited. Hands must be properly cleansed and sterilized prior to servicing each client. Authority O.C.G.A Sec. 43-10-6. History. Original Rule entitled "Sterilization" was met on February 25, 1986; effective March 17, 1986. Repealed: New Rule of same title adopted. F. Jul. 20, 1993; eff. Aug. 9, 1993.

## **Waste and Garbage. Amended**

### **130-5-.04**

130-5-.04 Waste and Garbage. Amended. All waste material must be removed daily. Garbage shall be stored in a covered, washable container and shall not be left in the establishment overnight. Each establishment must be free from stale food and soiled dishes. Authority O.C.G.A Sec. 43-10-6. History. Original Rule entitled "Waste and Garbage" was filed on February 25, 1986; effective March 17, 1986. Repealed: New Rule of same title adopted. F. Jul. 20, 1993; eff. Aug. 9, 1993.

## **Cleaning of Implements. Amended**

### **130-5-.05**

130-5-.05 Cleaning of Implements. Amended. Cosmetology, nail care and esthetician implements shall be cleansed thoroughly with soap and water and sanitized by using recommended disinfectants approved by the Georgia State Department of Health. Each salon must include wet and dry sanitizers. Authority O.C.G.A. Sec. 48-10-6. History. Original Rule entitled "Cleaning of Implements" was filed on February 25, 1986; effective March 17, 1986. Repealed: New Rule of same title adopted. F. Jul. 20, 1993; eff. Aug. 9, 1993.

## **Storage of Preparations**

### **130-5-.06**

130-5-.06 Storage of Preparations. Creams, lotions and other cosmetics for use on patrons must be kept in sanitary, closed containers. Authority O.C.G.A. Sec. 43-10-6. History. Original Rule entitled "Storage of Preparations" was filed on February 25, 1986; effective March 17, 1986.

## **Recommended Disinfection Approved by the Georgia Department of Human Resources, Environmental Health**

### **130-5-.08**

130-5-.08 Recommended Disinfection Approved by the Georgia Department of Human Resources, Environmental Health Section.

(1) Wet Disinfection Standards.

(a) All tools and implements, except those which come in contact with blood or body fluids, must be disinfected by complete immersion in any EPA registered, hospital grade, bactericidal, virucidal, and fungicidal disinfectant that is prepared and used according to the manufacturer's directions.

(b) All tools and implements which come in contact with blood or body fluids must be disinfected by complete immersion in any EPA registered, hospital grade, and tuberculocidal disinfectant that is prepared and used according to the manufacturer's directions.

(2) Dry Disinfection Standards.

(a) After thoroughly washing in detergent and warm water, items may be disinfected, using ultra violet ray exposures according to the ultra violet equipment supplier's recommendations, provided that lamps are replaced and dates of replacement recorded as indicated by test results.

(3) Storage Standards.

(a) Disinfected implements must be stored in a disinfected, dry and covered container (Any EPA approved dry disinfectant may be used). Authority O.C.G.A. Sec. 43-10-6. History. Original Rule entitled "Recommended Disinfection—Approved by the Georgia State Board of Health" was filed on February 25, 1986; effective March 17, 1986. Amended: Rule retitled "Recommended Disinfection Approved by the Georgia Department of Human Resources, Environmental Health Section". F. Oct. 20, 1995; eff. Nov. 9, 1995.

**Protective Clothing**

**130-5-.09**

130-5-.09 Protective Clothing. Cosmetologists in Georgia are required to abide by all federal and state laws for cosmetology. The profession of cosmetology is within the guidelines of the rules promulgated by The Occupational Safety and Health Administration (OSHA).

Cosmetologists are also subject to Georgia Annotated Code Section 43-1-19. Practitioners of the cosmetology profession in Georgia shall wear appropriate protective clothing for clinical services to prevent occupational exposure of potential infectious materials. Appropriate clothing shall include, but not limited to clinical jackets, gloves and/or similar outer garments for the protection of infectious or harmful materials. Authority O.C.G.A. Sec. 43-1-9. History. Original Rule entitled "Protective Clothing" adopted. F. May 10, 1993; eff. May 30, 1993.

## ▶ Structure and Function of the Hair (1 hour)

### **Lesson Objectives:**

- List parts of the hair
- Define bonds
- Describe the hair follicle
- Define alopecia
- List hair classifications
- Identify hair diseases and disorders

## **HAIR**

### **Hair Structure**

Hair is made up of keratin protein.

The composition on a microscopic level shows that the hair strand is a chain of amino acids.

Amino acids are linked together by what is called a peptide bond.

The chain is called a polypeptide chain.

The hair's polypeptide chain is called the alpha helix.

The single hair, contains 3 coils of polypeptide chains or alpha helices.

The cortex is the main body of the hair.

The center of the hair is the medulla

### **Hydrogen Bond**

The hydrogen bond is located between the coils of the alpha helix.

It's acts as the hair's memory.

It allows the hair to be stretched and return back to its original shape like when the hair becomes wet and then dries again.

### **Salt Bond**

The salt bond is an ionic bond located between amino acids.  
The salt bond influences strength and elasticity.

### **Cystine Bond**

The cystine bond is formed by cross-links between amino acids of the polypeptide chains.  
It allows for resiliency and resistance to damage.  
Hair fibers are held together by the cystine bond.  
It is why we can permanent wave hair.

### **Sugar Bond**

The sugar bond is also contained in the hair.  
It accounts for moisture of the hair and also adds to its strength.

### **Hair Facts**

Hair has no pain receptors so that is why we feel no pain when cutting it.

Another hair fact is that blonds do have more fun!, or at least that have more hair!

Blond have more hair per head than any other color of hair.

Hair has enormous strength.

A strand of hair has comparative strength to the same size strand of iron.

Most people's hair grows 1/2 inch every thirty days.

One hair has a life span of two to six years then it will fall out.

Before it falls out it stops growing about ninety days before.

Afterward, a new hair will grow in its place.

It is also true that the hair grows faster in warm months than in cooler months.

### **Hair Color**

Melanin is the agent of color for the hair.  
Melanin contains two pigments: eumelanin and pheomelanin.

## **Alopecia**

Alopecia is hair loss.

Alopecia can differ in severity but the highest level is complete baldness.

Alopecia can occur with all body hair.

## **Hair Classifications**

### **African hair, Asian hair, and Caucasian hair**

It is true that Japanese hair is not the same as Indonesian hair and Swedish hair has no resemblance to African hair or Brazilian hair.

There are dynamic differences in comparing hair attributes of these 3 groups. These groups have their own unique qualities regarding hair density, speed of growth and hair follicle in the scalp.

**Asian hair** grows the fastest, 1.3 cm every thirty days.

It is also the most dense of all groups. The hair follicle positions the hair profoundly perpendicular to the scalp.

**African hair** grows the slowest, 0.9 cm every thirty days.

It is less dense than Asian hair and grows almost parallel to the scalp as opposed to perpendicular.

**Caucasian hair** grows 1.2 cm every thirty days and is the most dense of all groups.

It grows neither perpendicular nor parallel to the scalp but at an angle.

## **Water and the Hair**

Hair can absorb 30% of its own weight in water.

Damaged or chemically treated hair can absorb more than that even up to 45%.

Water can intensify the effects of sunlight on the hair.

The sun can degrade the natural color of the hair and cause it to fade.

The sun can also make the keratin brittle.

## **Light Reflection**

Reflection of light defines many aspects of the appearance of the hair.

The amount of light the hair reflects determines how the hair looks in reference to depth of color.

Damaged hair reflects less light than healthy hair.

Manufacturers of hair products produce ingredients that help renew light reflecting qualities.

## ► **Wellness of the Professional Hair Designer** (1 hour)

### **Objectives:**

- List the foods of a healthy diet
- Identify the positive effects of exercise on the body
- Explain how posture correlates with good health
- Describe the science behind proper sleep
- Describe in brief the history behind hygiene
- Identify the cause and effect of perspiration
- Explain how bacteria plays a part in hygiene
- List ways to perform personal care techniques

### **Having a healthy diet**

is one of the most important things you can do to help your overall health.

Along with physical activity, your diet is a key factor that affects your weight.

Having a healthy weight for your height is important.

Being overweight or obese increases your risk of heart disease, diabetes, high blood pressure, cancer,

stroke, arthritis, osteoarthritis, gallbladder disease, sleep apnea and breathing problems.

### **A Healthy Diet**

Dietary Guidelines for a healthy diet are: fruits, vegetables, whole grains, and fat-free or low-fat milk products; lean meats, poultry, fish, beans, eggs, and nuts; and a diet low in saturated fats, cholesterol,

salt, and sugar.

### **Dining Out**

Make substitutions, like having steamed vegetables instead of fries.

Choose lean meat, fish, or skinless chicken.

Choose broiled, baked, grilled, steamed, or poached meats. Ask for baked, boiled, or roasted potatoes.

Order vegetable side dishes without butter or sauce.

Use low-fat salad dressing or lemon on your salad. Order fresh fruit or fruit sorbet in place of cake, pie, or ice cream desserts.

### **Portion Awareness**

Eating the right amount of food at each meal is important. Even if you are a healthy eater, you could hurt your efforts by eating more than the recommended amount of food.

### **Here are some examples of serving sizes.**

- A serving of meat, boneless and cooked is two to three ounces, or roughly the size of the palm of your hand or a deck of cards.
- A serving of chopped vegetables or fruit is 1/2 cup. A serving of fresh fruit is one medium piece.
- A serving of cereal is 1/2 cup.

A healthy diet will help you either lose weight or keep you at a healthy weight.

It is well balanced with foods from all food groups: fruits, vegetables, whole-grains, lean meats or soy and fat-free or low-fat milk products.

A health diet is low in fat, and cholesterol.

### **Beneficial oils come from fish, nuts, and vegetable oils.**

The color of fruits and vegetables play a roll in the amount of nutrients they contain.

### **The deeper the color, the more nutritious they are.**

**A healthy diet:** will provide a well balanced supply of sufficient fiber and nutrient-dense whole foods such as whole grains, fruits and vegetables.

## **Exercise**

Exercise is very important for personal health.

Being physically active can provide many benefits:

- It lowers your risk of getting heart disease, stroke, high blood pressure, colon cancer, and diabetes.
- It lowers high blood pressure.
- It helps keep your bones, muscles, and joints healthy.
- It reduces anxiety and depression and improves your mood.
- It gives you more energy.
- And it helps you sleep better.

We should all get at least 30 minutes of moderate physical activity per day.

Most people can get even greater health benefits by being physically active for a longer duration and with more intensity.

## **Here are some tips that will help motivate you to participate in physical activity:**

- Choose an activity that's fun.
- Alternate your activities, so you don't get bored.
- Doing housework, gardening, yard work, and walking the dog are great to get you moving.
- Create opportunities for activity, such as parking your car farther away, taking the stairs instead of the elevator.
- Exercise with a friend or family member.
- Make your activity a regular part of your day, so it becomes a habit.

It's easy to see how important diet and exercise is to our wellness.

Let's turn our attention to another important topic for all Personal Service Workers: **Posture**

## **Posture**

Posture is the position that you hold your body while standing, sitting or lying down.

Good posture involves training your body to stand, walk, sit and lie in positions where the least strain is placed on supporting muscles and ligaments during movement or weight-bearing activities.

- Proper posture will keep your bones and joints in the correct alignment so that your muscles are

being used properly.

- Proper posture will help decrease the abnormal wearing of joint surfaces that could result in arthritis.
- It will decrease the stress on the ligaments holding the joints of the spine together.
- It also prevents the spine from becoming fixed in abnormal positions.
- Proper posture will prevent fatigue because muscles are being used more efficiently, allowing the body to use less energy.
- It will prevent strain or overuse problems that result in backache and muscular pain.
- And of course we know that good posture contributes to a healthy appearance.

### **The Correct Standing Position**

1. Hold your head up straight with your chin in. Do not tilt your head forward, backward or sideways.
2. Make sure your earlobes are in line with the middle of your shoulders.
3. Keep your shoulder blades back and down.
4. Keep your chest up.
5. Keep your knees straight but not locked.
6. Stretch the top of your head toward the ceiling.
7. Tuck your stomach in. Do not tilt your pelvis forward or backward.
8. The arches in your feet should be supported.
9. Avoid standing in the same position for a long time.
10. If possible, adjust the height of the work table to a comfortable level.
11. When standing, try to elevate one foot by resting it on a stool or box. After several minutes, switch your foot position.

### **Correct Positions for Stooping, Squatting and Kneeling**

3. Decide which position to use.
4. Kneel when you have to go down as far as a squat.
5. For each of these positions, face the object, keep your feet apart, tighten your stomach muscles and lower yourself using your legs.

So we see how Diet, Exercise and Posture are key elements in our wellness.

How about Sleep?

## Sleep

Getting a good night's sleep is the best way to insure that you have days full of energy with a positive mood. Here are some tried and true rules to help you sleep better.

### **Maintain a regular bed and wake time schedule including weekends.**

**Our sleep-wake cycle** is regulated by a **circadian clock in our brain** and the body's need to balance both sleep time and wake time.

A regular waking time in the morning strengthens the circadian function and can help with sleep onset at night.

That is also why it is important to keep a regular bedtime and wake-time, even on the weekends when there is the temptation to sleep in.

Establish a regular, relaxing bedtime routine such as soaking in a hot bath or hot tub and then reading a book or listening to soothing music.

A **relaxing** routine activity right before bedtime, conducted away from bright lights, helps separate your sleep time from activities that can cause excitement, stress or anxiety.

Both bright light and excitement make it more difficult to fall asleep, get sound and deep sleep or remain asleep.

Avoid arousing activities before bedtime like working, paying bills, engaging in competitive games or family problem-solving.

Some studies suggest that **soaking in hot water** such as a hot tub or bath before retiring to bed can ease the transition into deeper sleep.

**Avoid exposure to bright light** before bedtime because it signals the neurons that help control the sleep-wake cycle that it is time to awaken, not to sleep.

**Create a sleep-conducive** environment that is dark, quiet, comfortable and cool.

Design your sleep environment to establish the conditions you need for sleep – cool, quiet, dark, comfortable and free of interruptions.

**Make** your bedroom reflective of the value you place on sleep.

- Check your room for noise or other distractions such as light, or another person's snoring.
- Consider using blackout curtains, or a sleep mask.
- Sleep on a comfortable mattress and pillows.
- Make sure your mattress is comfortable and supportive.

**Use your bedroom only for sleep.**

It is best to take work materials, computers and televisions out of the sleeping environment.

Use your bed only for sleep to strengthen the association between bed and sleep.

If you associate a particular activity or item with anxiety about sleeping, omit it from your bedtime routine.

For example, if looking at a bedroom clock makes you anxious about how much time you have before you must get up, move the clock out of sight.

Do not engage in activities that cause you anxiety and prevent you from sleeping.

Diet, Exercise, Posture and Sleep are key elements in the wellness of the Personal Service Worker. Participating in good health practices is the best reward we can give ourselves!

## **Hygiene, Grooming and Body Maintenance for the Professional Cosmetologist**

The origins of personal cleanliness date back to prehistoric times. Since water is essential for life, the earliest people lived near water and knew something about its cleansing properties - at least that it rinsed mud off their hands.

A soap-like material found in clay cylinders during the excavation of ancient Babylon is evidence that soap making was known as early as 2800 B.C.

Inscriptions on the cylinders say that fats were boiled with ashes, which is a method of making soap.

Records show that ancient Egyptians bathed regularly. They combined animal and vegetable oils with alkaline salts to form a soap-like material used for treating skin diseases, as well as for washing

At about the same time, Moses gave the Israelites detailed laws governing personal cleanliness. He also related cleanliness to health and religious purification.

Biblical accounts suggest that the Israelites knew that mixing ashes and oil produced a kind of hair gel.

The early Greeks bathed for aesthetic reasons and apparently did not use soap.

Instead, they cleaned their bodies with blocks of clay, sand, pumice and ashes, then anointed themselves with oil, and then scraped off the oil and dirt.

They also used oil with ashes. Clothes were washed without soap in streams.

Soap got its name, according to an ancient Roman legend, from Mount Sapo, where animals were sacrificed.

Rain washed a mixture of melted animal fat, or tallow, and wood ashes down into the clay soil along the Tiber River. Women found that this clay mixture made their wash cleaner with much less effort.

Commercial soap making in the American colonies began in 1608. However, for many years, soap making stayed essentially a household chore.

Eventually, professional soap makers began regularly collecting waste fats from households, in exchange for some soap. Soap making was one of America's fastest-growing industries by 1850.

At the same time, its broad availability changed soap from a luxury item to an everyday necessity.

Household detergent production in the United States began in the early 1930s, but did not really take off until after World War II.

The first detergents were used chiefly for hand dish washing and fine fabric laundering.

The breakthrough in the development of detergents for all-purpose laundry uses came in 1946, when the first detergent was introduced in the U.S.

By 1953, detergents replaced soap-based products for laundering, dish washing and household cleaning. Detergents are also found in many of the bars and liquids used for personal cleansing.

### **Perspiration**

We perspire to **regulate our body temperature**, but changes in diet, exercise, medical conditions or even the weather can increase the amount we sweat.

**Sweat is a mixture of water, sodium and chloride** and does not smell until it comes in to contact with bacteria.

**Antiperspirants stop sweating by using zirconium and aluminum.** The astringent ingredients limit the amount of sweat produced.

Deodorants mask the smell of sweat but do not prevent sweating. They contain a fragrance or have anti-bacterial ingredients which minimize the odor-producing bacteria.

Deodorants may limit the smell, but they will still leave you with the wetness. If you don't like the idea of stopping your body from sweating, deodorants are the best answer.

Most antiperspirants also contain a fragrance, although you can get unscented ones.

### **Bad Breath**

The main cause of halitosis, bad breath is a buildup of food particles in the mouth and the bacteria that result.

Here are some helpful tips to keep your breath in check:

- Visit your dentist at least every six months for cleanings and checkups to keep your mouth free of plaque buildup and other problems that may lead to bad breath.

- Watch your consumption of foods such as garlic, onions, proteins, sugars, coffee and alcohol. These foods cause bad breath.

- Brush your teeth and tongue twice a day to remove food particles and plaque, and floss between your teeth.
- Use a mouth wash with antiseptic ingredients.

If bad breath persists, check with your dentist. Bad breath might be a warning sign of other health problems.

### **Foot Care**

- Wash your feet daily.
- Rinse off all soap and dry thoroughly, especially between toes.
- Trim nails straight across, and not too short.
- Don't cut out or dig at corners.
- Do not trim, shave, or use over-the-counter medicines to dissolve corns or calluses
- Wear clean socks or stockings, changed daily.
- Don't wear shoes that are too short or too tight.

### **Shoes**

Some people's feet sweat more than others, and are more prone to athlete's foot. A good idea to keep feet fresh is to switch shoes from day to day and use foot powder.

Wearing shoes that have synthetic materials are contributing factors of the production of excessive perspiration and the growth of bacteria.

### **Hand Care**

Hands are the most visible parts of you, but they also take a lot of abuse. You use them in everyday activity, and yet, they are the ultimate accessory.

Keep your hands and nails in good condition just like you would tell your Salon Clients. This is very important for personal service workers not only for your health but for your appearance.

In addition, washing your hair, brushing your teeth, manicuring your nails and taking your vitamins are body maintenance routines that we must do on a daily basis.

Personal service workers need to take the same good advice they would give their clients.

### References and Resources

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