



AMANDA'S ART of COSMETOLOGY INSTITUTE

CONTINUING EDUCATION

Health & Safety (3 HRS)

Upon completion of the lesson, you should be able to:

1. List the types and classifications of bacteria.
2. Define hepatitis and AIDS and explain how they are transmitted.
3. Describe vegetable and animal parasites that may be seen in the salon.
4. Discuss the different types of disinfectants and how they are used.
5. Describe how to sanitize and disinfect various salon tools and surfaces.
6. Explain the differences between sterilization, disinfection, and sanitation.
7. Discuss Universal Precautions and your responsibilities as a salon professional.

Cosmetology & Barbering

Master Cosmetologist, Hair Designer, Esthetician, Nail Technician,
Master Barber, Barber II, Cosmetology Instructor,
Hair Designer Instructor, Esthetician Instructor, Nail Technician Instructor, Barber Instructor

LEARNING MOTIVATION (WHY?)

Throughout your career in the field of cosmetology, you will come into direct contact with many clients. As a result, the principles and practice of infection control are of key importance in your daily practice. These subjects have a direct bearing on your well-being and that of your clients. That is why it is so important for you to know the necessary steps to prevent the spread of disease. A basic understanding of how bacteria affect our daily lives is helpful in becoming competent in infection control procedures.

Contagious diseases, blood poisoning, and skin infections are caused by infectious bacteria being transmitted from one individual to another. They are also caused by the use of unsanitary implements or dirty hands and fingernails.

As a professional in the field of cosmetology, you will be exposed to a variety of germs or bacteria every day. You will be working directly on the skin, scalp, hair and nails of your clients, all of which are ideal breeding grounds for bacteria. Your hands and the implements you use will be additional sources of passing bacteria. Thus, the applied practice of infection control is even more essential to our safety.

If we follow established guidelines and sound principles of cleanliness and safety, we should never encounter any problems with the spread of harmful bacteria. In fact, each state establishes detailed procedures for protection against the spread of disease. We will learn and practice those regulations throughout your course of study.

We must take care when using implements that could cut or pierce the skin. They must be disinfected before and after each use. Implements that cannot be properly disinfected must be disposed of as directed.

Consider this. How would you feel if you were very ill and went to the doctor only to find the examination room dirty with contaminated gauze, soiled cotton, and used gowns laying about? Then, you were asked to recline on an examining table that the former patient had just vacated and the disposable covering had not been changed. You would not feel very confident that the doctor knew what he was doing or that you were going to be well taken care of, would you? Our profession is one of high touch and contact.¹

Therefore, it is critical for you to develop clean habits now, while you are in school. These habits will include removing hair from the floor immediately

after cutting, disposing of used or discarded perm wrap papers, disinfecting used or dropped implements, constantly washing your own hands, and much more. You will want to modify your behavior to ensure that good habits of cleanliness are routine in your daily activities. This behavior will endear you to your clients and increase their confidence in your professional abilities and concern for their safety. As always, a happy client is one who tells others about their experience and returns with regularity to your salon. That's crucial for your long term success in the field of cosmetology.

I. BACTERIOLOGY

- **BACTERIA**

- **TYPES**
 1. Nonpathogenic
 - a) Saprophytes

 2. Pathogenic
 - b) Parasites

- **PATHOGENIC CLASSIFICATIONS**
 1. **Cocci**
 - a) Staphylococci

 - b) Streptococci

 - c) Diplococci

 2. **Bacilli**

3. Spirilla

- **MOVEMENT OF BACTERIA**

1. Cocci

2. Bacilli and spirilla

The science that deals with the study of microorganisms called bacteria.

Minute, one-celled vegetable microorganisms are found nearly everywhere. Prominent in dust, dirt, refuse, and diseased tissues. Also known as GERMS or MICROBES. They can exist almost anywhere and can only be seen through a microscope. 1500 rod-shaped bacteria will fit on the head of a pin.

These are helpful or harmless bacteria which perform useful functions such as decomposing refuse and improving soil fertility. They help metabolize food, protect against microorganisms, and stimulate immune response.

Nonpathogenic bacteria which live on dead matter and do not produce disease.

Harmful and disease producing when they invade plant or animal tissue.

Require living matter for growth. Identified by distinct shape.

Round-shaped and appear singly or in groups. Cocci rarely show active motility or self-movement. Transmitted via air, dust, or in substance in which they settle.

Pus-forming and grow in bunches or clusters. They cause abscesses, pustules, and boils.

Pus-forming and grow in chains. They cause infections such as strep throat.

Grow in pairs and cause pneumonia.

Short, rod-shaped. They are the most common bacteria and produce diseases such as tetanus, influenza, typhoid fever, tuberculosis and diphtheria.

Spiral or corkscrew-shaped. Subdivided into several groups. *Treponema pallida* causes syphilis, an STD (sexually transmitted disease). *Borrelia burgdorferi* causes Lyme disease.

Different bacteria move in different ways.

Rarely show active motility (self movement). They are transmitted in the air, in dust, or within the substance in which they settle.

Both motile and use slender, hairlike extensions known as flagella or cilia for locomotion. A whiplike motion of these hairs moves the bacteria in liquid.

- **GROWTH AND REPRODUCTION**

- **TWO PHASES IN LIFE CYCLE**

1. Active or vegetative
2. Inactive or spore forming

- **BACTERIAL INFECTIONS**

1. Local infection
2. General infection
3. Contagious or Communicable

- **VIRUSES**

1. Live by penetrating cells.
2. Resistant to antibiotics.

3. Vaccination will prevent.

- **HEPATITIS**

The material needed to sustain the life of bacteria are the outer cell wall and internal protoplasm. Bacteria manufacture their own food, give off waste products and grow and reproduce.

Remember - vegetables grow. Bacteria thrive in a warm, moist, dark and dirty environment. It only takes about 20 - 30 minutes for bacteria to reach full growth. They then divide into two new cells. The division is called **mitosis** and the new cells are called *daughter* cells. We'll discuss this more when we study Chapter 6, Anatomy and Physiology.

Bacteria such as anthrax and tetanus bacilli form spherical spores with tough outer coverings which are resistant to adverse conditions. This allows the dormant bacteria to withstand long periods without food. The spores can be blown about and can come to rest on various surfaces within the salon. When favorable conditions are restored, the spores become active or vegetative and begin to grow and reproduce once again. Therefore, even bacteria in the inactive stage can ultimately be a threat to the spread of disease or infection in the salon.

Infections occur when body tissues are invaded by disease-causing or pathogenic bacteria. The presence of pus is a sign of infection. Pus is a fluid product of inflammation and contains white blood cells and the debris of dead cells, tissue elements and bacteria.

One that is confined to a single area such as a pimple, boil or infected cut. Presence of pus is the sign of infection. Pus contains bacteria, waste matter, decayed tissue, body cells and living and dead blood cells. **Staphylococci** are the most common pus-forming bacteria.

When pathogenic bacteria and their toxins are carried to all parts of the body by way of the bloodstream, it becomes a general infection such as blood poisoning or syphilis.

Diseases which are 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. Common contagious diseases preventing cosmetologists from working are tuberculosis, colds, ringworm, scabies, head lice and virus infections.

Submicroscopic structures capable of infecting almost all plants, animals and bacteria. Can pass through the pores of a porcelain filter. Cause common colds and other respiratory and gastrointestinal infections. They include measles, mumps, chicken pox, smallpox, rabies, yellow fever, polio, influenza, HIV (AIDS).

However, vaccinations are not available for all viruses.

Disease marked by inflammation of the liver and caused by a blood borne virus similar to HIV/AIDS in transmission. It is present in all body fluids.

1. Hepatitis A

2. Hepatitis B (HBV)

3. Hepatitis C (HCV)

• HIV/AIDS

1. Passed through blood and body fluids.

- a) unprotected sexual contact
- b) sharing of IV needles with infected drug users
- c) accidents with needles in health care facilities
- d) through cut and sores

2. Methods for NOT transmitting the disease

- a) handholding
- b) hugging
- c) kissing
- d) sharing food or household items

3. Can be infected for 11 years without symptoms.

• **HOW PATHOGENS ENTER THE BODY**

1. Break in the skin
2. Mouth
3. Nose
4. Eyes or ears
5. Unprotected sex

Illness lasts about 3 weeks. Symptoms similar to flu; may cause yellowing of skin and eyes in adults. Spread through close contact; poor sanitation and personal hygiene, contaminated food, milk, water, and shellfish; infected food handlers; sexual contact. A vaccine is available.

Can cause long-term hepatitis, cirrhosis, and/or liver cancer. There may be no symptoms or flu-like symptoms. It is primarily transmitted through sexual contact or parenteral exposure (piercing mucous membranes or skin barrier) to blood or blood products. A vaccine is available.

Progresses slowly and about 1/3 of those with the illness show no symptoms. When symptoms exist they include fatigue and stomach pain. It is also transferable through parenteral contact and sexual activity with infected partners. No vaccine is available.

HIV (Human Immunodeficiency Virus) is the virus that causes AIDS (Acquired Immune Deficiency Syndrome). AIDS breaks down the body's immune system.

Like telephones or toilet seats. There are no documented cases of the virus being transmitted by food handlers, insects or casual contact.

A person may be infected and transmitting the disease without even knowing they have the disease.

Such as a cut, pimple, or scratch.
By breathing or swallowing air, water, or food. Air.
Dirt.

L. HOW BODY FIGHTS INFECTION

1. Through unbroken skin
2. Body secretions such as perspiration and digestive juices
3. White blood cells
4. Antitoxins

M. BLOODBORNE PATHOGENS

1. Passed through contaminated implements.

- **PARASITES**

1. Parasites
2. Vegetable parasites or Fungi
3. Animal parasites

- **IMMUNITY**

1. Natural immunity

2. Acquired immunity

3. Human disease carrier

REMEMBER: Infections can be prevented and controlled through personal hygiene and public sanitation. These are disease-causing bacteria or viruses that are carried through the body in the blood or body fluids.

We must take extra precautions for disinfecting implements anytime there is the presence of blood.

Vegetable or animal organisms that live in or on other living organisms. Examples are head and body lice.

Produce contagious diseases such as ringworm or favus which is a disease of the scalp. Can cause lifting of the finger or toenails.

Responsible for contagious diseases. A parasite carried by a mosquito causes malaria. Insects which carry diseases from one person to another are known as disease vectors. The itch mite burrows under skin and causes scabies. Head lice is called pediculosis

REMINDER: Contagious diseases caused by parasites are never treated in a cosmetology school or salon. They should be referred to a physician.

The ability to fight off or resist infections and disease and to destroy bacteria that have entered the body.

An inborn ability to resist certain diseases. It's partly inherited and partly developed through hygienic living and such factors and frequent exercise and a wholesome diet.

Developed after the body has overcome a disease or through inoculation. The disease or inoculation causes the blood cells to produce antibodies which are proteins that fight disease germs. Acquired immunity may be temporary or permanent.

One who is personally immune to a disease but can transmit germs to others. Typhoid fever and diphtheria can be transmitted this way.

II. PRINCIPLES OF PREVENTION

A. CONTAMINATION

1. Contaminate
2. Contaminant

Proper care must be taken to meet rigorous health standards in order to prevent the spread of disease. Our clients depend upon us to ensure their safety.

- **DECONTAMINATION LEVELS**

1. Sterilization
2. Disinfection
3. Sanitation

- **STERILIZATION**

1. Steam Autoclave
2. Dry Heat

- **DISINFECTION**

1. Follow Directions

F. EPA

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.

Only sanitation and disinfection are required in the salon.

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.

Most popular and preferred method due to proven history. Works like a pressure cooker. With steam injection, the temperature is raised above that of boiling water. Will eventually kill all living organisms, including bacterial spores.

Works like an oven. Objects are baked until all forms of life are dead.

IMPORTANT POINT: Don't use the word "sterilize" incorrectly. You can only sterilize nonporous surfaces, such as metal implements - you cannot sterilize the skin or nails. Sterilization is impractical and unnecessary in salons.

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. Does not kill bacterial spores. NOT for use on human skin, hair, nails.

Products which are developed to be safe may be dangerous if used incorrectly. Disinfectants must be used in strict accordance with directions.

Environmental Protection Agency.

Disinfectants must be approved by the EPA in your state.

G. OSHA

1. MSDS

- a) product content
- b) associated hazards
- c) combustion levels
- d) storage requirements

H. CHOOSING A DISINFECTANT

1. Correct efficacy

2. Hospital Level Disinfectant

Occupational Safety and Health Administration, created as part of U. S. Department of Labor to enforce safety and health standards in the workplace. The Occupational Safety and Health Act of 1970 established the Hazard Communication Rule, which requires manufacturers to assess hazards associated with their products.

Material Safety Data Sheets provide pertinent information. See **Figure 5.10**.

OSHA standards are important to cosmetology because of nature of chemicals used; mixing, storing, and disposal of chemicals; general safety, and our rights to know what we are working with.

Disinfectants are chemicals. We must read and follow directions.

Efficacy means effectiveness to be used against bacteria, fungi, and viruses.

Must be pseudomonacidal, bactericidal, fungicidal, and virucidal.

Effective February 28, 1997, OSHA's Bloodborne Pathogens Standard requires use of EPA-registered tuberculocidal disinfectant OR an EPA-registered disinfectant labeled as effective against HIV and HBV.

If school/salon implements come into contact with blood or body fluids, they must be cleaned and completely immersed in an EPA-registered disinfectant that kills HIV-1 AND Hepatitis B virus OR in a tuberculocidal disinfectant. The National Interstate Council of State Cosmetology Boards (NICS) follows this standard for testing as well.

The sound waves create powerful, cleansing bubbles in the liquid that clean tiny crevices impossible to reach with a brush.

Refer these to a physician. If a cut occurs, after properly disinfecting all implements and surfaces, seal contaminated wipes or cotton balls in a plastic bag before disposing; then wash your hands thoroughly.

I. PROPER USE OF DISINFECTANTS

1. Clean implements thoroughly before immersing.
2. Change solution daily unless instructors say otherwise.
3. Ultrasonic baths use high-frequency sound waves.
4. Never touch an open sore or wound.

III. TYPES OF DISINFECTANTS

A. QUATS(Quaternary ammonium compounds).

1. Nontoxic, odorless, fast-acting.
2. Most disinfect in 10 - 15 minutes.
3. Long-term exposure may damage fine steel.
4. Oil metal implements regularly.
5. Effective for cleaning surfaces.

B. PHENOLS (Phenolic disinfectants).

1. A caustic poison
2. May soften and discolor certain rubber and plastic materials.
3. Avoid skin contact.
4. Keep out of reach of children.

C. ALCOHOL

1. Methyl alcohol
2. Ethyl alcohol
3. Isopropyl alcohol
4. **Disadvantages of alcohol**
 - a) extremely flammable
 - b) evaporates quickly
 - d) slow-acting, just effective
 - e) corrode stools and dull sharp edges
 - f) vapors can cause headaches and nausea

- **BLEACH**
- **OTHER HOUSEHOLD CLEANERS**

1. Lysol and Pine-Sol

F. DISINFECTANT SAFETY

NOTE: Have various disinfectants on display.

Safe and effective if used properly.

5% solution most often used for metal implements.

Can cause skin irritation and concentrated phenols can seriously burn skin and eyes.

Some are poisonous if ingested.

Not used in salons.

To be effective, must be no less than 70%.

Must be 99% to be effective. Alcohols are not EPA-registered as disinfectants - not permitted for use with implements in states requiring hospital-level disinfection.

Sodium hypochlorite (household bleach) - effective as a disinfectant but not tested for disinfection of salon implements. Effective as a laundering additive.

Both effective disinfectants but should not be used on salon implements.

Disinfectants are hazardous if used incorrectly. Some are poisonous if ingested; some cause skin and eye damage.

1. Wear gloves & safety glasses.
2. Add disinfectant to water.
3. Use tongs, gloves or draining basket

4. Keep away from children.
5. Don't pour quats, phenols, etc. over hands.
6. Carefully weigh and measure products.
7. Never place in unmarked container.
8. Always follow manufacturer's directions.

Never add water to disinfectant.

When removing implements from disinfectants.

Wash your hands with soap and warm water and dry thoroughly.

CAUTION: Formalin (formaldehyde) is not safe for salon use; may cause cancer; poisonous to inhale; irritating to eyes, nose, throat and lungs; can cause allergies, etc.

Electric or bead "sterilizers" do NOT sterilize. For dry heat to effectively sterilize, the entire implement including handle is submerged in an EPA-registered disinfectant solution and then heated to 325' F for at least 30 minutes.

IV. DISINFECTION PROCEDURES

- **IMPLEMENTS**

1. Pre-clean.
2. Rinse thoroughly, pat dry.
3. Wear gloves, goggles, and/or safety glasses.

4. Mix solution according to directions.
5. Use gloves and tongs to immerse implements.
6. Remove implements with tongs, basket, or gloves.
7. Rinse thoroughly, air-dry.
8. Place in clean, closed, dry, disinfected container.

- **LINENS, CAPES**

1. Launder and bleach according to label directions.

C. ELECTRICAL EQUIPMENT

1. Wipe and spray with EPA-registered, hospital-grade, tuberculocidal disinfectant created for electrical equipment.

Remove hair, filings, and other such loose matter by scrubbing with soap and water.

D. WORK SURFACES

1. Use EPA-registered disinfectant.

- **WHIRLPOOL FOOT SPAS**

1. Drain water, remove foreign matter.
2. Clean surfaces and walls with soap, rinse with clean, clear water.

3. Disinfect with EPA-registered disinfectant.
4. Rinse and wipe dry with clean towel.
5. At end of each day, remove screen and remove trapped debris.
6. Wash screen and inlet with soap and chlorine solution.
7. Immerse in EPA-registered disinfectant according to directions.
8. Flush system with low sudsing soap and water for 10 minutes.
9. Rinse, drain, and let air-dry.
10. **Every two weeks:**
 - a) fill with 5 gallons of water and 4 tsps of 5% bleach solution
 - b) circulate solution through system for 5 - 10 minutes.
 - c) let solution sit overnight.
 - d) drain and flush system.

- **BLOOD SPILL DISINFECTION**

1. Stop service and clean injured area.

2. Apply antiseptic and/or liquid or spray styptic.
3. Cover injury with band-aid or other appropriate dressing.
4. Use finger guard or gloves as needed.
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.

Carefully read manufacturer's cleaning instructions.

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.

- **DISPENSARY**

1. Keep clean and orderly.
2. Maintain MSDS on all chemicals.

- **HANDLING DISPOSABLES**

1. Place in closed container.
2. If in contact with blood, double-bag and mark with biohazard sticker.

3. Use puncture-proof containers for sharp instruments.

- **SANITATION**

1. Clean with soaps or detergents.

- **MOLD**

1. Spores carry toxins that cause allergic reactions and sickness.

2. Dirt on surfaces provides nutrients for mold.

3. Proper sanitation prevents growth.

- **WASHING HANDS**

1. Wet hands with warm water.

2. Use liquid soap and scrub hands together for 15 - 20 seconds.

3. Rinse well with warm water.

4. Dry with disposable paper towel or air blower.

- **ANTISEPTICS**

Lowest level of decontamination.

DEFINITION: To significantly reduce the number of pathogens or disease-producing organisms found on a surface.

A fungus growth that usually grows in dark, damp places. MILDEW is a moldy coating produced by fungi and can appear on walls, fabrics, etc.

Avoid use of bar soaps in salons; pump-type liquids are safer.

Give attention to areas between fingers, nails and both sides of hands and exposed portions of arms.

Do not use cloth towels.

Can kill, retard, or prevent the growth of bacteria, but are not classified as disinfectants. They are weaker than disinfectants and are safe for skin application.

CAUTION: Hand washing is the single most effective measure for reducing the spread of infectious disease. Be aware that antibacterial soap may NOT kill more germs than regular soap and water and can be harmful in that it can leave the skin vulnerable to skin problems such as eczema.

V. UNIVERSAL PRECAUTIONS

A. PRECAUTIONS

1. Hand washing.
2. Wearing gloves.
3. Using personal protective equipment such as goggles.
4. Injury prevention.

OSHA prescribes the use of Universal Precautions as the approach to infection control. Universal Precautions are a set of guidelines and controls published by the Centers for Disease Control and Prevention (CDC), that require the employer and employee to assume that all human blood and specified human body fluids are infectious for HIV, HBV, and other blood borne pathogens.

Clients who are infected with Hepatitis B or other bloodborne pathogens are often asymptomatic (show no symptoms).

5. Proper handling and disposal of needles, sharp instruments, products contaminated by blood or other body fluids.

VI. THE PROFESSIONAL IMAGE A. SALON GUIDELINES

- 1. Sweep floors after each client.**
- 2. Deposit waste in self-closing receptacle.**
- 3. Mop floors/vacuum daily.**
- 4. Control dust.**
- 5. Keep windows, screens, curtains clean.**
- 6. Clean fans, vents, humidifiers regularly.**
- 7. Keep work areas well lighted.**
- 8. Keep hot and cold running water.**
- 9. Keep restrooms clean and tidy.**
- 10. Maintain toilet tissue, paper towels, and pump-type liquid soap.**
- 11. Clean sinks and water fountain regularly.**
- 12. Provide disposable drinking cups.**

13. Keep free of insects and rodents.
14. Never use for cooking or living quarters.
15. Never store food with salon products.
16. Keep service areas free of food, drink, and smoking.
17. Empty waste receptacles daily.
18. Properly mark containers.
19. Keep exteriors of containers clean.
20. Don't place tools in mouth or pockets.
21. Avoid touching face, mouth, or eyes during services.
22. No pets or animals allowed.
23. Disinfect all surfaces between client services.
24. Use only freshly laundered linens
25. Use an air purification system or EPA-registered air cleaner/deodorizer spray.

B. YOUR PROFESSIONAL RESPONSIBILITY

- 1. Learn the state rules regarding sanitation and client safety.**
- 2. Never take shortcuts in sanitation or disinfection.**
- 3. Put client and personal safety first at all times.**

EXCEPTION: Trained Service Animals.

Use neck strips. Disinfect linens when washing, or new disposable linens on clients.

SUMMARY AND REVIEW

The state regulatory agency and local health board requires that businesses serving the public follow certain sanitary precautions. As we have learned, contagious diseases, skin infections, and blood poisoning are caused either by infectious bacteria being transmitted from one individual to another or by the use of unsanitary implements. The more you know and understand about bacteria, how they grow and reproduce and how they are destroyed, the more success you will attain in the salon in protecting both yourself and your clients from unnecessary infections or disease. It is essential to practice universal precautions which include using gloves, safety glasses, disinfectants, and salon/school cleanliness. Don't take short cuts when it comes to sanitation and disinfection. Following proper procedures will earn your clients trust and will work to improve the public's perception of cosmetology as a career.

Let's review:

1 QUESTION: What are bacteria?

ANSWER: Minute, one-celled, microorganisms with both plant and animal characteristics.

2. QUESTION: Name and describe the two main classifications of bacteria.

ANSWER: Pathogenic and non-pathogenic.

3. QUESTION: What are some of the beneficial functions performed by nonpathogenic bacteria? **ANSWER:** They help metabolize food, protect against infectious microorganisms, and stimulate immune response.

4. **QUESTION:** Name and describe three forms of pathogenic bacteria.

ANSWER:

Cocci - round-shaped bacteria that appear singly or in groups as staphylococci, streptococci, and diplococci. *Bacilli* - rod-shape bacteria that produce diseases such as tetanus, typhoid fever, tuberculosis, and diphtheria. *Spirilla* - corkscrew-shaped bacteria, which are divided into subgroups such as *Treponema pallida* and *Borrelia burgdorferi*.

5. **QUESTION:** How do bacteria multiply?

ANSWER: When conditions are favorable and bacteria reach their largest size, they divide into two new cells. The division is called mitosis. The new cells are called daughter cells. When conditions are unfavorable, bacteria die or become inactive.

6. **QUESTION:** What is the difference between local and general infection?

ANSWER: A local infection is confined to a particular part of the body and is indicated by a lesion containing pus such as a pimple or abscess. A general infection results when the bloodstream carries the bacteria or virus and their toxins (poisons) to all parts of the body.

7. **QUESTION:** How are viruses different from bacteria?

ANSWER: Viruses are capable of infesting bacteria. A virus lives only by penetrating cells and becoming part of them. Bacteria are organisms that can live on their own. Bacterial infections can be treated by antibiotics while viruses are generally resistant to antibiotics. Vaccination can prevent viruses from penetrating cells if one is available.

8. **QUESTION:** How does AIDS affect the body? How is it transmitted? How is it not transmitted?

ANSWER: AIDS breaks down the body's immune system. It is transmitted from person to person through blood and other body fluids. It can be transmitted through unprotected sexual contact; sharing of IV needles with drug users; accidents with needles in health care settings; through cuts and sores. It cannot be transmitted by holding hands, hugging, kissing, sharing food or household items like the telephone or toilet seats.

- 9. QUESTION:** Describe the three forms of hepatitis and how they are transmitted. **ANSWER:**
Hepatitis A - spread through close household contact, such as common bathroom use, poor sanitation, poor personal hygiene; contaminated food, water, milk, and shellfish; infected food handlers; sexual contact.
Hepatitis B - spread through sexual contact or parenteral exposure (piercing mucous membranes or skin barrier) to blood or blood products.
Hepatitis C - spread through parenteral contact and sexual activity with infected partners.
- 10. QUESTION:** What is a contagious or communicable disease?
ANSWER: One that is spread from one person to another by contact.
- 11. QUESTION:** Define *immunity* and name the two types.
ANSWER: Immunity is the ability of the body to destroy any bacteria that have gained entrance and to resist infection in general.
Natural immunity - Partly inherited and partly developed through hygienic living.
Acquired immunity - Developed after the body overcomes a disease, or through inoculation (vaccination).
- 12. QUESTION:** Describe the procedure for taking care of blood spill in the salon.
ANSWER:
1. Stop service and clean injured area.
 2. Apply antiseptic and/or liquid or spray styptic. Don't contaminate container.
 3. Cover injury with band-aid or other appropriate dressing.
 4. Use finger guard or gloves as needed.

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.

13. QUESTION: What is decontamination? Explain the three levels of decontamination.

ANSWER: Decontamination is the removal of pathogens and others substances from tools and surfaces. Sterilization is the highest level and completely destroys every organism on a surface, whether beneficial or harmful. Disinfection is a higher level than sanitation. It does not kill bacterial spores; it controls microorganisms on hard, nonporous surfaces such as cuticle nippers and other salon implements.

Sanitation is the third or lowest level of decontamination. It means to significantly reduce the number of pathogens or disease-producing organisms found on a surface.

14. QUESTION: What is efficacy and why is it important?

ANSWER: Efficacy (the power to produce an effect) is the effectiveness of a product against bacteria, fungi, and viruses. An efficacy standard on a product label is important because it will tell you which bacteria the product will effectively destroy.

15. QUESTION:What is a MSDS? **ANSWER:** Material Safety Data Sheet

16. QUESTION: EPA-registered disinfectants are effective against what pathogens?

ANSWER: They are effective against those organisms that the product has been tested for and are listed on the product label.

17. QUESTION: List and describe three types of salon disinfectants.

ANSWER: Quaternary ammonium compounds (quats) - nontoxic, odorless, fast acting; good for disinfecting implements by immersion for 10 - 15 minutes.

Phenols - a caustic poison that can be safe and extremely effective if used according to directions. 5% solutions are used mostly for metal implements.

Bleach (sodium hypochlorite) - an effective disinfectant but has not been tested for disinfection of salon implements; effective as a laundering additive.

18. QUESTION: Explain how to disinfect: implements for haircutting and styling; metal nail implements; linens and capes; electrical tools that cannot be immersed; work surfaces.

ANSWER:

HAIRCUTTING AND STYLING IMPLEMENTS AND METAL NAIL IMPLEMENTS:

- 1. Pre-clean. Remove hair, filings, and other such loose matter by scrubbing with soap and water.**
- 2. Rinse thoroughly, pat dry.**
- 3. Wear gloves, goggles, and/or safety glasses.**
- 4. Mix solution according to directions.**
- 5. Use gloves and tongs to immerse implements.**
- 6. Remove implements with tongs, basket, or gloves.**

7. Rinse thoroughly, air-dry.

8. Place in clean, closed, dry, disinfected container

LINENS, CAPES

1. Launder and bleach according to label directions.

ELECTRICAL EQUIPMENT

1. Wipe and spray with EPA- registered, hospital-grade, tuberculocidal disinfectant created for electri-

cal equipment.

WORK SURFACES

1. Use EPA-registered disinfectant.

19. QUESTION: List at least six precautions to follow when using disinfectants.

ANSWER:

- 1.** Wear gloves & 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 quats, phenols, etc. 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.

20. QUESTION: Define sanitation.

ANSWER: The third, or lowest, level of decontamination; it means to significantly reduce the number of pathogens or disease-producing organisms found on a surface.

21. QUESTION: What are Universal Precautions?

ANSWER: A set of guidelines and controls, published by the Centers of Disease Control and Prevention (CDC), require the employer and the employee to assume that all human blood and specified human body fluids are infectious for HIV, HBV, and other blood borne pathogens. Precautions include hand washing; gloving; personal protective equipment such as goggles; injury prevention; and proper handling and disposal of needles, other sharp instruments, and products that have been contaminated by blood or other body fluids.