**INFECTION CONTROL PRACTICES AND PRINCIPLES**

**LEARNING OBJECTIVES**

**OBJECTIVES**

- Understand state laws and rules and the difference between them.
- List the types and classifications of bacteria.
- Define HIV and hepatitis and explain how they are transmitted.
- Explain the difference between cleaning, sanitation, disinfection, and sterilization.

**HOW THIS SUBJECT RELATES TO YOU?**

Throughout your career in the field of Cosmetology, you will come into direct contact with many clients. As a result, the principles and practices 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.

**OSHA**

- Occupational Safety and Health Administration (OSHA)
- Material Safety Data Sheets (MSDS)
  - Product content
  - Associated hazards
  - Combustion levels
  - Storage requirements

**REGULATION:** Many different state and federal agencies regulate the practice of cosmetology.
Federal agencies set guidelines for manufacturing, the sale and use of equipment and chemical ingredients, and requirements for safety in the workplace. State agencies regulate licensing, enforcement, and your conduct in the salon.

OSHA: The Occupational Safety and Health Administration was created as part of the 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 and communicate hazards associated with their products.

MSDS: Material Safety Data Sheets provide pertinent information. Have students look them over as you review the documents.

- Product content
- Associated hazards
- Combustion levels
- Storage requirements: OSHA standards are important to cosmetologists because of nature of chemicals used; mixing, storing, and disposal of chemicals; general safety, and our rights to know what we are working with.

The EPA registers many different types of disinfectants. The two types that are used in salons are hospital and tuberculocidal. Both are required by the Ohio State Board of Cosmetology.

Hospital disinfectants are effective for cleaning blood and body fluids. They can be used on any nonporous surface in the salon. Nonporous means that an item has no pores or openings and cannot absorb liquids. Hospital disinfectants control the spread of disease.

Tuberculocidal disinfectants are proven to kill the bacteria that cause tuberculosis, a disease transmitted through coughing or sneezing. These bacteria are capable of forming spores, so they are difficult to kill. Tuberculocidal disinfectants are one kind of hospital disinfectant. Some of these products can be harmful to salon tools and equipment, and they require special methods of disposal.

Disinfectant myth: The term hospital grade is not used by the EPA. The EPA does not grade disinfectants; a product is either approved by the EPA as a hospital disinfectant or it is not.
Being a salon professional is fun and rewarding, but it is also a great responsibility. One careless action could cause injury or infection or the invasion of body tissues by pathogens, and you could lose your license or ruin the salon’s reputation. Fortunately, preventing the spread of infections is easy if you know what to do and you practice what you have learned at all times. Safety begins and ends with you. The photo depicts an example of a sparkling clean salon that gives clients confidence in their safety and welfare.

There are four types of potentially infectious microorganisms that are important to cosmetology practitioners: bacteria, fungi, viruses, and parasites. An infectious disease is spread from one person to another, or from one infected body part to another.

Remember, cosmetologists are not allowed to diagnose, treat, or recommend treatments for disease or abnormal conditions; what you will learn in this chapter will teach you how to properly clean and disinfect the
tools and equipment so they are safe to use on clients. These steps are designed to prevent infection or disease. Disinfectants used in salons must be bactericidal, capable of destroying bacteria; fungicidal, capable of destroying fungi; and virucidal, capable of destroying viruses. **Be sure to mix and use these disinfectants according to the instructions on the labels so they are effective.**

1. Bactericidal Capable of destroying bacteria
2. Fungicidal Capable of destroying a fungus
3. Virucidal Capable of destroying viruses

To clean (cleaning): a **mechanical process** (scrubbing) using soap and water or detergent and water to remove dirt, debris, and many disease causing germs. Cleaning also removes invisible debris that interferes with disinfection. Cleaning is what cosmetologists are required to do before disinfecting. To sanitize (sanitation): a chemical process for reducing the number of disease-causing germs on cleaned surfaces to a safe level To disinfect **(disinfecting): a chemical process** that uses specific products to destroy harmful organisms (except bacterial spores) on environmental surfaces

Known as MICROBES or GERMS. They are minute, one-celled microorganisms with plant and animal characteristics. They can exist almost anywhere: on skin, in water, in air, in decayed matter, on environmental surfaces, in body secretions, on clothing, or under the free edge of nails. They can only be seen with a microscope.

For example: Mycobacterium fortuitum is a microscopic germ existing in tap water in small numbers that can, and has caused, serious skin infections that can linger for months and require strong antibiotics for treatment.
BACTERIA TYPES

• Nonpathogenic: HELPFUL or HARMLESS bacteria that perform useful functions such as decomposing refuse and improving soil fertility. They help metabolize food, protect against microorganisms, and stimulate immune response.

• Pathogenic: HARMFUL and disease producing when they invade plant or animal tissue

CLASSIFICATIONS OF PATHOGENIC BACTERIA

• Bacteria have three distinct shapes.

  1. Cocci
     - A. Staphylococci – Pus-forming bacteria that grow in clusters like grapes; they cause abscesses, pustules, and boils. See Figure 5–3 in the Milady Standard Cosmetology textbook.
     - B. Streptococci – Pus-forming bacteria arranged in curved lines resembling a string of beads; they cause infections such as strep throat and blood poisoning.
     - C. Diplococci – Spherical bacteria that grow in pairs and cause diseases such as pneumonia.

  2. Bacilli rods

  3. Spirochete

1. Cocci – Three types:
   A. Staphylococci – Pus-forming bacteria that grow in clusters like grapes; they cause abscesses, pustules, and boils. See Figure 5–3 in the Milady Standard Cosmetology textbook.
   B. Streptococci – Pus-forming bacteria arranged in curved lines resembling a string of beads; they cause infections such as strep throat and blood poisoning.
   C. Diplococci – Spherical bacteria that grow in pairs and cause diseases such as pneumonia.
2. Bacilli – Short, rod-shaped bacteria. They are the most common and produce diseases such as tetanus, typhoid, tuberculosis, and diphtheria.

3. Spirilla – Spiral or corkscrew-shaped bacteria. They are subdivided into subgroups: Treponema papillida, which causes syphilis (an STD), or Borrelia burgdorferi, which causes Lyme disease.

LET’S REVIEW

1. Explain in your own words why it is important to study infection control.
2. Cosmetologists should understand the ____ of the cleaning and disinfecting products they use in the salon.
3. In regard to regulating the practice of cosmetology, what is the difference between federal agencies and state agencies?
4. What does OSHA stand for?
5. What is the purpose of the Hazard Communication Standard (HCS)?
6. Explain why you think OSHA’s standards are important to you personally as a cosmetologist.
7. What does a Material Safety Data Sheet include?

ANSWER THE NEXT TWO QUESTIONS TRUE OR FALSE:
8. ____ Federal and state laws require manufacturers to supply a Material Safety Data Sheet (MSDS) only for those products that are potentially hazardous.
9. ____ Federal and state laws require salons to obtain an MSDS for each product that is used in the salon.
10. It is the responsibility of each salon employee to ________ the information included on each MSDS and _____ they have done so by ____a ______ sheet.
11. What does the Environmental Protection Agency (EPA) register?