

OSHA & CDC GUIDELINES: OSAP INTERACT TRAINING SYSTEM

**Combining Safety with Dental
Infection Prevention and Control**

Bloodborne Pathogens
HAZCOM
CDC Guidelines

7th Edition
Updated 2022

OSAP**.org**
The Safest Dental Visit™



Objectives

Upon completion of this course, you will be able to:

1. Describe four principles of infection control.
2. Differentiate the roles of OSHA and CDC.

Focus



Every instrument you handle, every patient you deal with, and every piece of contaminated material you touch, has with it certain procedures that must be followed to protect you, your co-workers, and your patients. As this training system leads you, step-by-step, through a wide variety of information, you will – almost without knowing it – develop safe and practical working habits.

Your health and safety and that of the patients you serve are a major focus of public health advisors, the media, and the public. This focus defines how dentistry is practiced. “Quality care” has been expanded to include the health and safety considerations of both the patient and you: the healthcare worker.

These health and safety considerations, established by government guidelines and regulations, only appear to be complex and confusing. In fact, it is the interpretation of the many recommendations and requirements that can be difficult. This course makes understanding these recommendations easy, and is designed to train you to develop safe working habits through their practical application. In the process, the steps necessary to comply with government regulations are simplified. The bottom line is that these regulations exist with only one purpose in mind: to protect you.

In the day-to-day practice of dentistry, it is difficult to develop a comprehensive and practical training program including new office procedures that complies with all the standards, regulations, and requirements. Our approach is to address not only compliance with government regulations, but also to explain and demonstrate procedures so they will become part of your daily routine. This makes you an integral part of a safe office.

This program leads you through the process of learning how to be safe in the workplace in ten easy-to-understand lessons:

1. **Introduction - What Am I Getting Into?**
2. **Occupational Exposure - Why You Need to be Careful**
3. **Personal Protection - Barriers for Everyone**
4. **A Practical Program for Exposure Control - Your Daily Procedures**
5. **Instrument Reprocessing - Cleaning, Packaging, Sterilization**
6. **Product Selection - Cost Effective Product Selection**
7. **Written Procedures - Policies, Procedures, and Record-Keeping**
8. **Hazard Communication (HAZCOM) - The Hazard Communication Standard**
9. **Medical Waste Disposal - Handling, Packaging, Transport, and Records**
10. **Pulling it all Together - Integrated Office Management**

There are three sequential parts to each course: The information in the workbook, the one-on-one or group follow-up discussion, and the self-assessment documentation.

1. Workbook

Your workbook is designed to explain and reference a wide array of infection control and related health and safety issues. In each module, there are fill-in-the-blank questions designed to familiarize you with locations and procedures specific to your office and to aid in comprehension.

2. Discussion

Your office's Infection Control Coordinator and/or employer will discuss with you and clarify any aspect of the material presented, demonstrate any particular procedures used in your office, and show you the location of resources, equipment, and materials.

3. Documentation

After each course, there is a short self-assessment test to highlight the key points in each lesson and to evaluate your knowledge of your office's procedures. This signed test serves as your office's training record and must be kept in your personnel file for three years, to meet the US Department of Labor's Occupational Safety and Health Administration's (OSHA) training requirements.

Note:

You can complete step #1 above, either by yourself or as part of a group, and it is not necessary to have your Infection Control Coordinator/Dentist or Employer present. However, government regulations stipulate that ample time must be provided during training for discussion with one of them, which is step #2.



The US Department of Labor, by an act of Congress, created the Occupational Safety and Health Administration (OSHA) in 1970 for the sole purpose of protecting the health and safety of all workers. OSHA mandated, through its General Duty Clause that:

Each employer must “furnish to each of his employees, employment and a place of employment, which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees.”

OSHA’s first enforcement efforts were in the manufacturing and mining industries, which were experiencing the greatest number of work-related injuries. These early general industry regulations were designed to control air quality, noise, hazardous chemicals and materials, building design, and access to employee records. It was not until 1987 that overall chemical safety was addressed in the Hazard Communication Standard *Title 29, Code of Federal Regulations (CFR) Part 1910.1200*, which requires that the hazards associated with the production, transportation, usage, storage, and disposal of chemicals be communicated to all employees. Chemicals are used every day in dental settings and some are hazardous. When hazardous chemicals are used in the workplace, the Hazard Communication Standard requires a hazard communication program. This program includes a written document that describes labeling containers of hazardous chemicals, use of safety data sheets (SDS) for hazardous chemicals, and staff training. Hazard Communication (HAZCOM) is covered in course #8.

Regulations for Healthcare Workers

Initially, there were no specific regulations included for the control of bloodborne infectious diseases in the healthcare environment, as there was no perception that healthcare workers were at significant risk. In the mid-1980’s, OSHA recognized that healthcare workers are exposed to a variety of hazards, the most serious of which was the hepatitis B virus (HBV). A new vaccination became commercially available for preventing HBV infection in 1982, and voluntary guidelines were issued by OSHA in 1983 to encourage the vaccination’s use. Additionally, a new threat emerged in a bloodborne virus, transmitted via body fluids in a manner similar to hepatitis B virus, and was identified as “human immunodeficiency virus” or HIV. This new virus was also a consideration in the issuing of suggested, voluntary guidelines, which, in effect, said nothing more than “be immunized” for HBV and use gloves and masks while treating patients.

Unfortunately these voluntary guidelines had no legal enforcement ability to protect healthcare workers, and consequently, in 1986, the government began to develop new mandatory standards. Proposed regulations for the new Occupational Exposure to Bloodborne Pathogens *29 CFR Part 1910.1030 (Bloodborne Pathogens Standard)* were issued in May, 1989 and finalized on December 6, 1991. When issuing the “Final Rule,” OSHA’s administrator said:

“Today we are providing full legal force to universal precautions – employers and employees must treat blood and certain body fluids as if infectious. Meeting these requirements is not optional. It’s essential to prevent illness, chronic infection and even death.” Universal precautions are now part of what CDC refers to as Standard Precautions.

The Bloodborne Pathogens Standard was revised in 2001, in response to the Needlestick Safety and Prevention Act. This revision incorporated requirements to provide engineered sharps injury protection against contaminated sharps injuries, when available.

Evolution of 29CFR 1910.1030 Dec. 6, 1991 Bloodborne Pathogens Standard

- 1970 • OSHA Created**
- 1983 • Voluntary Infection Control Standards Issued**
- 1986 • Began to Develop New Bloodborne Standards**
- 1987 • Hazard Communication Standard Issued**
- 1991 • Final, Mandatory Bloodborne Pathogens Standard Issued**
- 1995 • Dental Employer Obligations for Postexposure Management Defined**
- 2001 • Bloodborne Pathogens Standard Revision**
- 2012 • Hazard Communication Standard Revision**

CDC Recommendations for Healthcare Workers

The Centers for Disease Control and Prevention (CDC) is the foremost public health agency in the United States. It reviews current scientific information and based on that information, creates recommendations to protect the health of the population at large. CDC also tracks disease trends across the country and may serve as primary investigator when disease outbreaks threaten public health. Using the information it gathers, the agency develops methods for preventing or limiting the occurrence of all diseases.

Unlike OSHA, a regulatory agency that is only concerned with employees, CDC develops guidelines designed to protect workers and patients. The CDC developed four major principles to control the spread of infectious diseases from workers to patients, from patients to workers, and between patients.

Take action to stay healthy

- **Get immunized**
- **Report occupational injuries and exposures immediately**
- **Follow the advice of the medical care provider evaluating your occupational exposure**
- **Wash hands**

Limit the spread of contamination

- **Set up the operatory before starting treatment**
- **Unit dose supplies**
- **Cover surfaces that will be contaminated**
- **Minimize splashes and spatter**
- **Properly dispose of all waste**

Avoid contacting blood/body fluids

- **Wear gloves, protective clothing, and face and eye protection**
- **Handle sharps with care**
- **Use safety devices as appropriate**
- **Use mechanical devices to clean instruments whenever possible**

Make objects safe for use

- **Monitor processes to make sure they're working as they should**
- **Dispose of single-use items**
- **Follow appropriate instrument reprocessing (e.g., sterilization) for reusable items**
- **Sharp devices with engineered safety measures**

Since the release of the Bloodborne Pathogens Standard, OSHA and the CDC have acknowledged that other biological hazards exist that may affect healthcare workers and their patients. Professional organizations such as the Organization for Safety, Asepsis and Prevention (OSAP), the American Dental Association (ADA), the American Dental Hygienists Association (ADHA), the American Dental Assisting Association (ADAA), and the Association for Professionals in Infection Control and Epidemiology (APIC), among others, have developed recommendations for safer workplaces. Specifically, there has been increased attention to hepatitis C, airborne diseases, injury prevention, and postexposure management.

Summary

Government regulations and recommendations have been developed with your best interests and health in mind. Today, the delivery of oral healthcare services requires that safety be an integral part of your daily routine.

In an effort to protect the health and safety of all employees, OSHA issued regulatory standards for healthcare facilities, including dental offices. These include hazardous chemical standards, industrial standards, and the Bloodborne Pathogens Standard. Other requirements affecting dental offices, such as waste disposal tracking, are governed by other federal, state, and local agencies.



Exposure Control

If you're going to work in dentistry, you must accept the fact that you are going to be exposed to a variety of occupational hazards.

Can you think of one or two examples in your office in each of the four following areas?

Infectious Agents: _____

Chemicals: _____

Physical/Equipment: _____

Other: _____

To create a safe work environment, workplace hazards must be identified and managed to prevent exposure and potential injury. Exposure control reduces or eliminates the potential harm that may be encountered during the course of your job. The components of exposure control include:

Infection Control Policy and Practice



Physical Precautions

Chemical Safety



Warning Signs or Labels

Waste Management



Record Keeping

Each one of these component areas will be explained and/or demonstrated in detail during this course series. Exposure control is more than just infection control.

Infection Control: Infection control is a system of measures practiced by healthcare personnel, including dental health care personnel (DHCP) in healthcare facilities. The goals of infection control are to decrease transmission of infectious agents (e.g. bacteria, viruses, etc. that can produce infection). Infection control strategies are designed to prevent healthcare-associated infections in patients and injuries and illnesses in healthcare personnel. Infection control measures are based on how an infectious agent is transmitted and include standard, contact, droplet, and airborne precautions. Examples of infection control measures include proper hand hygiene, safe work practices, use of personal protective equipment (PPE) [masks or respirators, gloves, gowns, and eye protection]. CDC uses the terms *infection control* or *infection prevention* and *infection prevention and control* in its guidelines and other documents.

Exposure Control: Exposure control uses the concepts and strategies of infection control to prevent exposure to infectious agents and to limit the spread of infectious agents when exposure occurs. Exposure controls include administrative policies and procedures for infection control and safety, education and training, safe work practices, engineering controls, etc. OSHA uses the term *exposure control* throughout the Bloodborne Pathogens Standard. Dental settings are required to have a written exposure control plan and all employees must be familiar with its content.

A comprehensive infection prevention and safety program integrates infection control recommendations from the CDC infection control guidelines, and exposure control regulations from OSHA as well as other relevant standards and regulations at the state and local level.

Program Evaluation

Strategies and tools to evaluate your infection control and exposure control programs can include periodic observational assessments, checklists and routine review of occupational exposures to bloodborne pathogens. Evaluation offers opportunities to improve the effectiveness of your programs.



The Need For Training

It is only through training that a healthcare worker learns to protect himself or herself from on-the-job injuries and hazards. It is not only the responsibility of your employer to provide training, but it is also your obligation to learn the regulations and proper procedures.

Initial Training



Initial training for any employee who may be exposed to infectious hazards or to hazardous chemicals must occur prior to performing any task involving these substances. OSHA requires employers to provide training at the time of initial assignment to tasks where occupational exposure may occur. Training must include discussions of the hazards associated with blood and other potentially infectious materials, chemical hazards, physical hazards, and waste management. This course forms the core of your initial training, and serves as reference material for detailed explanations and examples that are specific to your office.

Whenever there is a change in responsibilities, a change in office procedures where occupational hazards occur, or changes in government regulations, additional training must be provided specific to those changes.

Q&A

Question: *“I just started working here last week, after working at another dental practice. Can I continue to work without any training?”*

Answer: The experience you may have brought with you from another practice is valuable, and you can begin working with patients your first day on the job. However, you must be familiar with your new practice’s infection control procedures, any chemicals used, and the location of critical equipment. It is required that all employees be fully trained to work in their new office environment prior to initial assignment to tasks where there is potential risk of exposure.

Annual Training

Training must occur at least once each year, and more often when new information, technologies, equipment or procedures are implemented. Training may be facilitated by the employer or Infection Control Coordinator. Annual training should include a refresher of policies in addition to any new information. In each training session, there should be opportunity for questions and answers and ample time for discussion. All training must be provided at no cost to the employee and during regular working hours by qualified individuals, in the appropriate language, with accurate, up-to-date materials.

*3 Types of Training***Initial Training**

- Whenever there is a change in responsibilities of staff or infection control coordinator
- Whenever there is a change in office procedures where there is a potential for an occupational exposure/hazard
- In response to changes in government regulations or recommendations

Additional Training

- When there are changes in policies, procedures, or products
- If new information is available or if there are changes in recommendations or regulations
- If someone does not follow standard operating procedures

Annual Training

- Required for specific OSHA standards such as the Bloodborne Pathogens Standard
- Recommended as good office policy



Your office has recently purchased a new environmental surface disinfectant. Before it can be used, each employee must receive product training which, at a minimum, must answer the following questions:

- *What are the brand and generic names of the product?*
- *Where is this product located?*
- *What are its major ingredients?*
- *When should this product be used?*
- *What are the procedures for its proper safe use?*
- *Are there any potential hazards?*
- *How can potential hazards be reduced?*
- *Where is the Safety Data Sheet (SDS) located?*
- *What are the first aid procedures for accidental exposure?*

Training Specific to Your Practice

This program, with its various integrated elements, provides a comprehensive training system to allow you and other employees to work in a safe and compliant manner. Part of this integration requires that your exposure control program be specific to your office, and include training and safety procedures that consider the uniqueness of your facility, local ordinances, special staff needs, and other constraints.

It is this program's intent to provide everyone in your practice new information and, at the same time, ensure that all office personnel possess, at a minimum, the knowledge base necessary to discuss safety and safe standard operating procedures. This program will also lead you step-by-step as your office customizes the material for governmental compliance. By following the guidelines set forth in this program, your office will be able to integrate exposure control into its daily routine with the least disruption of its day-to-day operations.

Infection Control Coordinator

To ensure the health and safety of everyone in your practice, an Infection Control Coordinator has been assigned to manage your practice's training program and to ensure that documentation is properly maintained. For training purposes, the Infection Control Coordinator is responsible for:



- 1 • Scheduling and monitoring training for all personnel**
- 2 • Maintaining training materials and records**
- 3 • Customizing the course materials for the office setting**
- 4 • Answering questions, and providing ongoing training**
- 5 • Monitoring evidence based information for updates or interim guidance**
- 6 • Following both state and local guidance from departments of public health and city health programs**

The Infection Control Coordinator also communicates directly with OSAP if necessary.

Your office's Infection Control Coordinator is:

The Infection Control/Exposure Control Plan is the core of your practice’s training and safety program. Government regulations stipulate that all employees be aware of its content and prescribed procedures. Site specific infection control and safety program should integrate the OSHA Bloodborne Pathogens Standard and CDC recommendations. As you work through this training program, you and your Infection Control Coordinator will become familiar with all applicable regulations, either by creating a new Infection Control/Exposure Control Plan step- by-step or by adding to your office’s existing plan. Your Infection Control/Exposure Control Plan may contain:

- **Exposure Control Plan**
- **Exposure Determination**
- **Methods of Compliance**
- **Schedule of Implementation**
- **Documentation of Evaluation of Safety Devices**
- **Hazard Communication**
- **Emergency Procedures**
- **Waste Management Procedures**

The Infection Control/Exposure Control Plan for this practice is located:

It is your Infection Control Coordinator’s responsibility to ensure that your practice’s written Infection Control/Exposure Control Plan reflects all policies and procedures. The success of the practice’s safety program requires the cooperation of all staff members. As an ongoing role, the Coordinator will: supervise, evaluate and update the Plan as necessary; retrain all staff appropriately and supervise the training of new staff as they join the practice.



Need More Information?

This course series is written to give all employees, regardless of their experience, the same knowledge base in Exposure Control. Each course begins by outlining basic concepts and facts for the inexperienced healthcare worker, then logically builds on this material to the point where even experienced providers are learning new information.



**For more information, visit the OSAP website at:
OSAP.org**

Note:

In order to access the full resources of OSAP, you must maintain a current membership. Member benefits include publications (weekly “InfoBites”, monthly infection control news summaries and bi-monthly *Infection Control in Practice TEAM HUDDLE™*); a password for the “Members-Only” section of the website with 60+ toolkits, charts and checklists, infection control practice tips, slide decks and videos; discounts on training materials and courses; complimentary access to “Ask OSAP” technical services and much more.

For more information about membership, visit the website at OSAP.org or call OSAP at 1-410-571-0003.



Discussion

Below are some questions that will assist you in a discussion with your Infection Control Coordinator or Safety Officer.

You have now completed the workbook segment for Course #1. Below are some questions that will also assist you in your discussion with your Infection Control Coordinator or dentist, and other staff members.

Question: *Will someone tell me when a patient has an infectious disease such as hepatitis, HIV, or influenza?*

Answer: You will not always know when or if a patient has an infectious disease such as hepatitis B, hepatitis C, HIV disease, tuberculosis or even influenza (the flu). There may be instances in which patients do not know they are infected, because symptoms may not yet have occurred. You should treat all patients as if they are infectious, and you should use precautions consistent with the recommended universal and standard precautions protocols.
(Standard Precautions: Course #2)

Question: *What are the different exposure control plans I need to know about?*

Answer: The primary types of exposure in a dental office are bloodborne/infectious/biologic or chemical. OSHA has Standards which regulate both of these. One is the Bloodborne Pathogen Standards and the other is the Hazard Communication Standard. Each Standard requires a written plan specific to each. The Hazard Communications Standard requires a written Hazard Communications Program and the Bloodborne Pathogens Standard requires a written Exposure Control Plan.

Question: *Infection Prevention, Infection Control, and Exposure Control – what are the differences?*

Answer: CDC, the federal agency that develops guidelines and recommendations to prevent and control infections and injuries, uses the terms *infection prevention*, *infection control* and uses *infection prevention and control*. **Infection prevention** is designed to prevent healthcare-associated infections in patients and healthcare personnel through a variety of exposure prevention measures. Examples of prevention measures include a written infection prevention and control program, education, and training of personnel, immunizations,

personal protective equipment, safe work practices and use of devices with engineered safety features, sterility assurance of reusable patient care items, environmental cleaning and disinfection or use of surface barriers.

Infection control involves taking actions to reduce the risks associated with exposure to potentially infectious body fluids and materials. Examples of infection control measures include post-exposure management and medical follow-up. Although the concepts differ, the terms are often used interchangeably.

OSHA uses the term *Exposure Control*. OSHA requires employers to provide a place of employment either free of known hazards or when the hazards cannot be removed, protection from exposure to the hazards. Additionally OSHA regulates employers to manage exposures if they do occur and to reduce or limit the risks associated with the exposure. Exposure Control, as described by OSHA in the Bloodborne Pathogens Standard, consists of a variety of exposure prevention and management measures using the concept of universal precautions to reduce the employee's (e.g., healthcare worker's) risk of exposure to blood and other potentially infectious materials. These measures include education and training, hepatitis B vaccine, handwashing, personal protective equipment, use of engineering controls and work practice controls, etc.).

Each specific measure of infection prevention and control/exposure control is covered in detail in the following courses.