

FROM POLICY TO PRACTICE: OSAP'S GUIDE TO THE CDC GUIDELINES

A Step-By-Step
Dental Infection
Prevention and Control
Implementation
Workbook

Updated 2022

OSAP
The Safest Dental Visit™ .org



Quick Start Guide to Using this Workbook



Who is OSAP?

The Organization for Safety, Asepsis and Prevention (OSAP) is the only membership association solely focused on dental infection prevention and patient safety education and training. OSAP offers evidence-based education, an extensive collection of online resources, and collaborates with individuals, agencies, and organizations to assure the safe and infection-free delivery of oral healthcare to all. For more information on OSAP activities, call (410)-571-0003 email office@osap.org, or visit osap.org.

Who is CDC?

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.

CDC recommendations set the standard for the infection control and safety practices used by dental professionals in the US. In 2003, CDC issued its Guidelines for Infection Control in Dental Health-Care Settings-2003. That document outlined specific recommendations for infection control and safety in dentistry and became the resource used by all dental practitioners. In 2022, the CDC Division of Oral Health removed these guidelines in favor of interim guidelines for COVID-19 for all healthcare settings. As of July 2022, it is unknown if and when the 2003 guidelines may be reinstated.

In 2016, CDC revisited the 2003 guidelines and published *Summary of Infection Prevention Practices in Dental Settings: Basic Expectations for Safe Care*, a document that reinforced the existing guidelines, added some new recommendations, and provided checklists to help dental professionals implement and maintain the recommended practices. This summary document is considered current and should be referenced for source information regarding standard precautions in oral healthcare settings.

The Healthcare Infection Control Practices Advisory Committee (HICPAC) is a federal advisory committee chartered to provide advice and guidance to the CDC and the Department of Health and Human Services regarding the practice of infection control. HICPAC has identified “Core Infection Prevention and Control Practices for Safe Healthcare Delivery in All Settings” (2014), which were adopted by the CDC as guidelines for all healthcare settings. These core practices are intended to provide guidance for infection control across all health care disciplines.

Understanding and incorporating the CDC recommendations outlined in these publications is essential to protecting dental health care personnel and patients.

How is this workbook different from the CDC guidelines?

CDC's infection control guidelines outline only what dental workers (also called dental health care personnel (DHCP)) need to do, not how they can do it. Although this approach leaves plenty of room for professional judgment, it may not always provide all the information that DHCP need to comply with the recommendations.

From Policy to Practice: OSAP's Guide to the CDC Guidelines is designed to help you understand and implement the CDC guidelines. Although the CDC guidelines are comprehensive, they describe only what dental professionals should do, not how they should do it. For example, the CDC guidelines might specify that dental instruments be cleaned and then heat sterilized; the OSAP guide explains exactly how to clean and sterilize those instruments.

This OSAP guide will help you put the CDC guidelines into practice in your own setting. If you have questions while using this guide, talk to the infection control coordinator in your practice setting. There are also additional resources on the OSAP website: www.osap.org. Understanding and complying with all current CDC guidelines is essential to providing dental care that is safe for the patients and staff.





Getting the Most from this Workbook

From Policy to Practice: OSAP's Guide to the CDC Guidelines is written and organized with simplicity in mind. To best prepare yourself to learn the material in each chapter, follow this step-by-step guide to working through each chapter.

- 1 At the top right corner of each chapter's title page, you'll see a list of job categories. These identify — at minimum — the DHCP who will need to learn and comply with the information in that chapter.

Patient Care refers to Dentists, Hygienists, Assistants, and any others who directly provide care to patients.

Turnaround refers to staff responsible for instrument reprocessing as well as preparing the operatory before and after patient treatment.

Admin refers to Administrative staff such as the Receptionist, Other Office Staff, and those involved in recordkeeping.

Manager refers to the Employer, the Infection Control Coordinator, and depending on how job responsibilities are defined in your practice setting, possibly the Office Manager.

- 2 Down the right side of each chapter title page, there's a column titled "Terms You Should Know." This is very important. The words and phrases in this list will be used throughout the chapter to explain infection control concepts and procedures. Look up each term in the Glossary (beginning on page 166 of this workbook). When you are familiar with each term, you are ready to begin the chapter.

- 1 **Job Categories** at the top of each chapter's title page tell you who, within your practice setting, should read and learn the content

Examining the Issue

Because of the nature of many dental procedures, both you and your patients may come into contact with disease-causing microorganisms (called "pathogens"), especially those found in blood. Diseases can be transmitted:

- from the patient to the dental worker,
- from the dental worker to the patient, or
- from one patient to another.

In dentistry, diseases can be transmitted through:

- **direct contact** with microorganisms from an infected person to a host that is not immune;
- **indirect contact** with objects that are contaminated, such as instruments, items, or surfaces;
- **droplet transmission**, in which spray or spatter containing microorganisms travels a short distance before settling on mucous membranes; or
- **an airborne route**, by which evaporated droplets ("aerosols") suspended in the air are inhaled.

For a disease to be transmitted, a number of conditions must be present. This "chain of infection" includes:

- **A pathogen in sufficient numbers to cause infection**, such as viruses like HIV and hepatitis B or bacteria like *Salmonella*.
- **A place for the pathogen to reside and multiply** (a "reservoir"), for example, the bloodstream or mucous membranes, a Petri dish, or even a dental unit waterline.
- **A way for the pathogen to leave its reservoir and reach a new host** (that is, a "mode of transmission"), such as through a cut from a contaminated instrument, contact of mucous membranes with a contaminated hand, or inhaling contaminated aerosols.
- **A proper portal of entry into a new host**, that is, an appropriate route for the pathogen to enter the body (for example, for a bloodborne pathogen to cause infection, it needs a way to enter the bloodstream, such as through a break in the skin).
- **A person who is not immune to the pathogen**. Vaccination against a pathogen or prior exposure to it can provide immunity to disease. "Infection control" refers to a series of procedures that removes one or more "links" in this chain. If any one of these conditions is not met, transmission of a particular disease cannot take place.

The Bottom Line

Although your work may increase your risk of getting some diseases, a number of procedures used routinely in dental settings help keep that risk to a minimum. Infection control strategies break the chain of infection. Through vaccination, hand hygiene, careful handling of sharp items, barrier techniques, and proper cleaning, disinfection, and sterilization procedures, you can have the safest workplace possible.

Terms You Should Know

- Administrative controls
- Centers for Disease Control and Prevention
- Dental health care personnel (DHCP)
- Engineering controls
- Hepatitis B
- Influenza
- HIV
- Personal protective equipment
- Postexposure prophylaxis
- Standard precautions
- Vaccine / vaccination
- Work practice controls

For definitions, see "Glossary," beginning on page 166.

- 2 **Terms You Should Know** lists some of the words and phrases you will come across in each chapter. Use the **Glossary** beginning on page 166 to make sure you know what they mean before you start reading

- 3 **Examining the Issues** explains why each set of practices and procedures is important



- 3 To help you understand why you must apply each set of precautions in the dental setting, “Examining the Issues” provides a clear summary of the reasons behind recommended practices. The chapters also contain practical, step-by-step instructions, charts and checklists, pictures and captions, answers to common questions, and guidance in specific situations that require the use of clinical judgment. If you want to know about the science behind the recommendations, you can consult the actual CDC guidelines (available free of charge at www.cdc.gov/oralhealth/infectioncontrol/summary-infection-prevention-practices/index.html). Detailed information about the infection control Core Practices is available at www.cdc.gov/hicpa/recommendations/core-practices.html
- 4 With OSAP’s “Exercises in Understanding,” you work with your Infection Control Coordinator or Trainer to apply what you’ve learned in each chapter to your own practice setting).
- 5 A Self-Test at the end of each chapter helps make sure you’re ready to move on to the next chapter. For any answers that you miss, reread the section, and take any questions to your Infection Control Coordinator.
- 6 If you need more information, “Recommended Readings and Resources” can point you in the right direction.

- 3 Illustrated **Step by Step** instructions within each chapter show you the “how-tos” of dental infection control



Step by Step

One-handed scoop technique for recapping needles

Always keep fingertips away from sharp needles and instrument tips.

- 1 First, place the cap on a hard, flat surface; then remove hand.



- 4 **Exercises in Understanding** brings recommended procedures into your practice setting

Work with your Infection Control Coordinator to make sure you’re hitting the mark



Exercises in Understanding

1. Walk through your instrument processing area. Does the walk-through take you from a dirty to a clean side? If not, how can it be better arranged?

2. Foil test your ultrasonic cleaner using the instruction on page 49. Do you see uniform pebbling, or does your unit appear to leave ultrasonic blind spots?

- 5 **Self-Test** makes sure you understand all the material before moving on



Self-Test

1. A highspeed handpiece is what kind of dental instrument?
a. critical b. semicritical c. noncritical?

How should highspeed handpieces be reprocessed?
a. autoclave or chemical vapor sterilizer
b. dry heat
c. high-level immersion disinfection

2. **True or False:** Mechanical instrument cleaning is considered safer

- 6 **Recommended Readings and Resources** points you toward more information in the literature and online



Recommended Readings and Resources

American Dental Association. ADA Statement on Dental Unit Waterlines. J Am Dent Assoc. 1996 Feb;127(2):181-9.

Mills SE. Waterborne pathogens and dental waterlines. Dent Clin North Am. 2003 Jul;47(3):545-57.

Mills SE, Karpay RI. Dental waterlines and biofilm—searching for solutions. Compend Contin Educ Dent. 2002 Mar;23(3):237-40.

An Introduction to Dental Infection Control



Examining the Issues

Healthcare-Associated Infections

While patients are receiving healthcare, they can be infected by germs unrelated to their treatment. Known as healthcare-associated infections, or HAIs, these infections occur in hospitals, medical and dental offices, urgent care centers, dialysis centers, nursing homes and any other setting where healthcare is delivered. HAIs can spread in many ways. For example, some patients are infected from contaminated or improperly used equipment while others are infected from the unclean hands of a healthcare worker.

When HAIs occur, the cause is often traced to a failure to follow recommended prevention practices. In 2015, after several alarming media reports of people being notified that they were treated with contaminated medical devices, CDC issued an official health advisory* to address the critical public health need for proper maintenance, cleaning, disinfection or sterilization of medical devices. This CDC health advisory also highlighted the importance of following guidelines to prevent infections in healthcare settings, including the continued education and training of healthcare workers in infection prevention and control.

Healthcare Workers

Healthcare workers, also called healthcare personnel (HCP), include all people working (paid or unpaid) in health-care settings who may have exposure to patients or infectious materials. Some examples of healthcare workers include dental workers as well as physicians, nurses, assistants, therapists, technicians, emergency personnel, pharmacists, and laboratory personnel. It may surprise you that healthcare workers also include students and trainees, volunteers, contractors, and people not directly involved in patient care but might be exposed to infectious agents. When healthcare workers are infected while doing their jobs, it is often referred to as an occupational illness.

Dental Workers are Healthcare Workers

Also called dental health care personnel (DHCP), dental workers include all paid or unpaid people working in dental care settings who might be exposed to infectious materials such as body substances, contaminated medical supplies and equipment, contaminated environmental surfaces, or contaminated water or air. This includes dentists, dental hygienists, dental assistants, students and trainees, dental laboratory technicians, contractors, and volunteers. DHCP also include people who do not participate in direct patient care, but are potentially exposed to infectious agents, such as administrative, clerical, housekeeping, maintenance personnel, and visiting sales representatives.

*Centers for Disease Control and Prevention Health Advisory: Immediate Need for Healthcare Facilities to Review Procedures for Cleaning, Disinfecting and Sterilizing Reusable Medical Devices. HAN382 Sept 11, 2015. emergency.cdc.gov/han/han00382.asp ; Updated Oct 2, 2015. HAN383; Updated Oct 2, 2015. HAN383 emergency.cdc.gov/han/han00383.asp



The Bottom Line

As a DHCP, you are an important member of the healthcare team. By learning and following safe practices and infection control techniques, both you and your patients can have the safest dental visit possible.



Terms You Should Know

Aerosols

Bloodborne pathogen

Chain of infection

*Contaminated /
Contamination*

Direct contact

Host

*Healthcare-associated
infection*

Immunity

Indirect contact

Microorganism

Mode of transmission

Occupational exposure

Pathogen

*Personal protective
equipment*

Splatter

Standard precautions

Universal precautions

*For definitions, see
“Glossary,” beginning
on page 164*

Diseases and Modes of Transmission in the Dental Setting

A number of diseases can be transmitted via routine dental care. Fortunately, infection control and safety procedures such as hand-washing, personal protective equipment, injury prevention techniques, and proper care of items and surfaces greatly reduce the risk to patients and DHCP.

Bloodborne

Hepatitis B
Hepatitis C
Human immunodeficiency virus (HIV)

Contact

Chickenpox
Hepatitis A
Herpes

Droplet

Mumps
Rubella
Influenza
COVID-19

Airborne

COVID-19
Chickenpox
Measles
Tuberculosis

Disease Transmission

Because of the nature of many dental procedures, both you and your patients may come into contact with disease-causing microorganisms (called “pathogens”), especially those found in blood. Diseases can be transmitted through:

- **direct contact** with microorganisms from an infected person to a host that is not immune;
- **indirect contact** with objects that are contaminated, such as instruments, items, or surfaces;
- **droplet transmission**, in which spray or spatter containing microorganisms travels a short distance before settling on mucous membranes; or
- **an airborne route**, by which evaporated droplets (“aerosols”) suspended in the air are inhaled.

For a disease to be transmitted, a number of conditions must be present. This “chain of infection” includes:

- **A pathogen in sufficient numbers to cause infection**, such as viruses like HIV and hepatitis B or bacteria like *Salmonella*.
- **A place for the pathogen to reside and multiply** (a “reservoir”), for example, the bloodstream or mucous membranes, a Petri dish, or even a dental unit waterline.
- **A way for the pathogen to leave its reservoir and reach a new host** (that is, a “mode of transmission”), such as through a cut from a contaminated instrument, contact of mucous membranes with a contaminated hand, or inhaling contaminated aerosols.
- **A proper portal of entry into a new host**, that is, an appropriate route for the pathogen to enter the body (for example, for a bloodborne pathogen to cause infection, it needs a way to enter the bloodstream, such as through a break in the skin).
- **A person who is not immune to the pathogen**. Vaccination against a pathogen or prior exposure to it can provide immunity to disease.

Infection control also called **infection prevention** refers to a series of procedures that removes one or more “links” in this chain. If any one of these conditions is not met, transmission of a particular disease cannot take place.



The ‘Chain of Infection’

Infection control attempts to break one or more “links” in the chain of infection.



Principles of Infection Control

Applying the four basic principles of infection control will guide you in keeping yourself and your patients safe.

1. Take action to stay healthy.

Your first obligation to yourself and your patients is to stay healthy. Remember that a susceptible host must be present for infection to occur; if you are not susceptible, you cannot acquire (and therefore can't transmit) a disease. Get vaccinated against hepatitis B and other vaccine preventable diseases.

2. Avoid contact with blood and body fluids.

A number of potentially serious diseases are spread through blood; other diseases are spread through contact with other body fluids. There is no way to know for certain which patients are infected. As such, avoid direct contact with blood, body fluids, non-intact skin, and mucous membranes. Always use standard precautions — handwashing; gloves, eyewear and face protection; controls to prevent injuries — and treat every patient as if infectious.

3. Limit the spread of blood and body fluid contamination.

Blood and other patient materials can be spread in many ways: through spatter created during dental procedures, by touching supplies, equipment, and furniture with contaminated hands, or by laying a contaminated instrument on a clean surface. Any item or area that you contaminate becomes a potential source of exposure. By taking care not to spread contamination, you help yourself and others avoid contact with blood and other potentially infectious body fluids.

4. Make objects safe for use.

Even doing your best to control the spread of blood or other body fluids, some instruments, items, equipment, and surfaces become contaminated during patient treatment. Always clean, package, then sterilize instruments before they are used again. Likewise, before seating the next patient, clean then disinfect or cover with a surface barrier any unprotected surfaces that became contaminated.

Principles of Infection Control...In Action

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

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

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

Make objects safe for use

- Know the different decontamination processes
- Read chemical germicide labels
- Monitor processes to make sure they're working as they should



The nature of many dental procedures puts DHCP in close contact with patients' blood and oral fluids.



Handwashing is an important part of infection control. Washing your hands can help keep you healthy.



Wear personal protective equipment to prevent contact with body fluids.



Set out supplies before treatment so you won't need to touch containers or cabinets with contaminated hands.



Pass sharp instruments with the tips away from all persons to minimize the risk of injury.

A Dental Health Care Personnel's Greatest Risk

Although you may be aware that HIV, the virus that causes acquired immunodeficiency syndrome (AIDS), is a blood-borne disease risk, you may not know that it is not the greatest risk to a DHCP. In fact, the most transmissible bloodborne agent is not HIV, but HBV — the hepatitis B virus.

Infection with hepatitis B virus is a major health problem that can cause lifelong infection, scarring of the liver, liver cancer, liver failure, and death.

HBV is usually transmitted during contact with blood. Healthcare workers, including DHCP, may become infected when exposed to an infected patient's blood, typically through a stick or cut with a sharp instrument, or through spatter contacting their eyes, nose, or mouth. Getting patient blood on cuts and cracks in skin also may cause infection.

As a DHCP, you have an increased risk of contact with blood and body fluids and are more likely to become infected with HBV than most people. Fortunately, a vaccine is available. If you have not been immunized against hepatitis B virus, talk to your Infection Control Coordinator about getting vaccinated today. For more info, see Ch. 2, Elements of a Dental Personnel Health Program

Universal Precautions

Universal precautions are infection control and safety procedures to protect against blood-borne disease transmission. Because patients with bloodborne infections may not appear sick or may not be aware that they are infected, universal precautions assume that all blood, and any body fluid that might be contaminated with blood (such as saliva), is infectious.

Standard Precautions

Standard precautions expand the concept of universal precautions beyond exposure to blood and represent a standard of care designed to protect HCP and patients from pathogens that can be spread by:

- blood
- all body fluids, secretions, and excretions (except sweat)
- non-intact skin
- mucous membranes

Standard precautions are applied to all patient care, in any healthcare setting, regardless of whether a patient has a suspected or confirmed infection. Standard precautions include—

- Hand hygiene
- Use of personal protective equipment
- Cleaning and disinfecting environmental surfaces
- Safe injection practices and sharps safety
- Sterilization of instruments and devices
- Respiratory hygiene/cough etiquette

Respiratory hygiene/cough etiquette and safe injection practices were added to standard precautions in 2007 and are critical elements of any infection control program. For a list of all CDC dental infection control recommendations, including new items relevant to dentistry since 2003, see Appendix A of this workbook.

Transmission-Based Precautions

For patients with highly infectious diseases that are easily spread through skin contact, or through airborne or droplet routes, the risk of spreading infection may require standard precautions to be supplemented with another tier of protection called transmission-based precautions. Although dental offices are not usually equipped for the level of isolation required for using transmission-based precautions, sick patients requiring this level of precaution usually do not come in for routine dental care. However, your infection control program should include a plan to detect and manage potentially infectious patients as soon as they enter your facility. Consider rescheduling non-urgent dental care until such patients are no longer infectious. Alternatively, when urgent dental care is necessary, refer infectious patients that require transmission-based precautions to a facility that can provide treatment using appropriate isolation practices.

Respiratory Hygiene / Cough Etiquette

When patients arrive sick, or if people who arrive with them are sick, they can spread infection to others in the waiting area, restrooms, front desk or other parts of your dental facility. Respiratory Hygiene/Cough Etiquette, an important part of standard precautions, applies to any patient or staff member who shows signs of respiratory illness such as a cough, congestion or runny nose. Your dental practice should have a system in place to detect and manage potentially infectious persons soon after they arrive at your facility.

CDC recommends the following actions for respiratory hygiene/cough etiquette:

- Implementing measures to contain respiratory secretions in patients and accompanying individuals who have signs and symptoms of a respiratory infection, beginning at point of entry to the facility and continuing through the visit
- Posting signs with instructions for:
 - Covering mouth/nose when coughing or sneezing.
 - Using and discarding tissues.
 - Cleaning hands after coming in contact with respiratory secretions.

- Providing tissues and no-touch trash bins.
- Providing resources for hand hygiene in or near waiting areas.
- Offering masks to people with a runny nose, cough or other signs of respiratory illness when they enter your facility.
- Providing space and encouraging people with symptoms of respiratory infections to sit away from others.
- Educating staff on the importance of ways to prevent the spread of respiratory germs from patients with signs and symptoms of a respiratory infection.

Universal Precautions and Standard Precautions

	Procedures include...	To protect against exposure to...
Universal Precautions	<ul style="list-style-type: none"> • Hand hygiene • Personal protective equipment (gloves, eyewear, and face protection) • Controls to prevent injuries • Proper management of patient care items and environmental surfaces 	Blood, some other body fluids
Standard Precautions	<ul style="list-style-type: none"> • Hand hygiene • Personal protective equipment (gloves, eyewear, and face protection) • Respiratory hygiene/cough etiquette • Safe injection practices and sharps safety • Sterilization of instruments and devices • Cleaning and disinfecting environmental surfaces 	Blood, body secretions, excretions, nonintact skin, mucous membranes

The Infection Control Plan

Every dental office should have a written infection control plan and have enough resources available to develop and maintain an infection control program. This includes providing training and supplies to ensure the safety of patients and staff. At least one person among your staff should be trained to serve as the Infection Control Coordinator and maintain the overall coordination, management and assessment of the infection control program.

The Infection Control Plan Should:

- Be developed, written and maintained to align with the type of dental services provided by your facility.
- Include written policies and procedures developed from infection control guidelines, regulations or standards that go beyond Occupational Safety and Health Administration (OSHA) bloodborne pathogens training.
- Be reviewed annually and revised from new recommendations, new safety products, and state and/or federal requirements or regulations.
- Be managed by someone who is trained in infection control and serves as the Infection Control Coordinator.
- Ensure that the correct supplies are available to follow Standard Precautions.
- Describe ways to detect and manage, as soon as possible, potentially infectious persons that come into your facility.



Recommended Readings and Resources

Molinari JA, Harte, JA eds. *Practical Infection Control in Dentistry*, 3rd edition. Philadelphia: Lippincott, Williams & Wilkins, 2010.

Miller CH., *Infection Control and Management of Hazardous Materials for the Dental Team*, 7th edition. St. Louis: Elsevier, 2023

Harte JA. Standard and Transmission Based Precautions: *An update for Dentistry. JADA 141(5):572-581; 2010*

OSAP. If Saliva Were Red: A Visual Lesson on Infection Control. www.osap.org

Centers for Disease Control and Prevention. *Summary of Infection Prevention Practices in Dental Settings: Basic Expectations for Safe Care*. 2016. www.cdc.gov/oralhealth/infection-control/summary-infection-prevention-practices/index.html

Centers for Disease Control and Prevention. *2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings*. www.cdc.gov/infectioncontrol/guidelines/isolation/index.html

Centers for Disease Control and Prevention. *Management of Multidrug-Resistant Organisms in Healthcare Settings*, 2006. www.cdc.gov/infectioncontrol/guidelines/mdro/index.html



Common Questions and Answers

How are microorganisms spread in the dental operatory?

Direct transmission can occur via person-to-person contact, via droplets that are produced through sneezing or coughing, or by spatter during dental procedures. Microorganisms also can be spread indirectly or by airborne routes.

What is indirect transmission?

In indirect transmission, microorganisms are first transferred to an object, such as an instrument or surface, and then transferred to another person.

What is airborne transmission?

With airborne transmission, microorganisms from an infected person become suspended in air, where they can be inhaled by others when they breathe. Some microorganisms, such as those that cause chickenpox, measles, or tuberculosis, can be spread by airborne transmission. Bloodborne microorganisms, including those that cause AIDS and hepatitis B, are not transmitted in this way.

What is bloodborne transmission?

Bloodborne transmission is the transfer of bloodborne pathogens from an infected host to a susceptible person. This can occur through cuts, puncture wounds, or cracks in the skin, or by splashes to the mucous membranes that allow an infected person's blood to enter the new person's bloodstream.



Exercises in Understanding

1. On a separate sheet of paper, write down the four principles of infection control and what they mean to you. Compare your answers with those described earlier in this chapter.
2. Cite examples of some of the ways you expect to apply each principle in your practice setting. Share your responses with your Infection Control Manager.



Self-Test

Before moving on, test yourself with some questions on the material. (answers appear below)

1. What events are necessary for infection to occur?

2. While working in a dental office, how can you become infected with a bloodborne pathogen?

3. What disease poses the greatest risk of infection to dental health care personnel?

(1) All of the following: pathogen in sufficient numbers; reservoir in which the pathogen can survive and multiply; mode of transmission; portal of entry in a new, susceptible host. (2) Through cuts, puncture wounds, or cracks in the skin, or by splashes to the mucous membranes that allow an infected person's blood to enter your bloodstream. (3) Hepatitis B.



Chapter 2

Elements of a Dental Personnel Health Program**Examining the Issues**

To help protect your health and safety while on the job and in turn, the health and safety of your patients, your work setting should have an occupational health program. Your Infection Control Coordinator can familiarize you with all the actions taken to ensure your health and safety.

Remember: Protecting your occupational health also protects your overall health, so do what you can to comply with your practice setting's recommendations for keeping safe at work.

Your practice setting should have:

- A written personnel health service program for DHCP that addresses:
 - education and training;
 - immunization programs;
 - exposure prevention and postexposure management;
 - medical conditions, work-related illness, and work restrictions;
 - latex hypersensitivity and other work-associated skin reactions; and
 - maintenance of records, data management, and confidentiality.
- A referral arrangement with qualified medical professionals to ensure that any necessary job-related medical evaluation and treatment can be delivered quickly and appropriately (see Ch. 3, Preventing Transmission of Bloodborne Pathogens).
- An education and training schedule that provides training on infection control procedures specific to your duties and responsibilities. You should receive this training before you begin performing any duties that put you at risk of exposure to body fluids as well as periodically thereafter.
- A written immunization program that outlines:
 - all required and recommended vaccinations/immunizations for staff by job title/description, and
 - referral to a healthcare professional to receive appropriate vaccinations.
- Written work restriction and exclusion policies in your workplace (including who may implement restrictions and exclusions).
- A confidential, up-to-date medical record for all DHCP, maintained and stored either onsite or with your practice's healthcare professional/facility. Records should only include documentation of immunization and of any tests received as a result of an occupational exposure.

You should be trained in:

- Administrative, engineering, and work practice controls that reduce your risk of contracting an illness or sustaining an injury while doing your job.
- Policies and procedures for prompt reporting of injuries and obtaining appropriate medical evaluation and followup care (see Ch. 3).
- The importance of reporting any medical conditions or medical treatments that may make you more susceptible to injury or infection, or that may create a significant risk of transmission to other staff members and patients.

**The Bottom Line**

Both you and your employer must work together to ensure your safety and the safety of all the patients you treat. Continual education and training, combined with your willingness to use proper infection control procedures in practice, can increase your safety, the safety of your patients, and even your community.

**Terms You Should Know***Administrative controls**Confidentiality**Engineering controls**Exposure prevention**Exposure management**Immunization**Infection Control
Coordinator**Latex hypersensitivity**Medical records**Occupational injury**Occupational illness**Qualified healthcare
professional**Vaccination / vaccine**Work practice controls**Work restrictions/
exclusions*

*For definitions, see
"Glossary," beginning
on page 164*

Recommended Immunizations for DHCP

The U.S. Public Health Service recommends that DHCP be vaccinated against the following illnesses:

- COVID-19
- Hepatitis B
- Influenza
- Measles
- Mumps
- Rubella
- Tetanus, with a booster every 10 years
- Varicella-zoster (chickenpox)

For more info, see Appendix C, p.154



Tetanus Booster

Td is the abbreviation for the tetanus-diphtheria vaccine given to adults as a booster every 10 years, or sometimes after an exposure to tetanus. Tdap is another tetanus vaccine, but also protects against diphtheria and pertussis.

You can have Tdap no matter when you last got a Td booster shot. All DHCP who have not, or are not sure if they've had a dose of Tdap should get a dose of Tdap as soon as possible. Female health-care DHCP should get Tdap during each pregnancy.



Vaccines and Dental Health Care Personnel: The Facts

- DHCP are at risk of acquiring diseases through their work.** In addition to bloodborne diseases such as hepatitis B and hepatitis C, unvaccinated DHCP also are at risk of catching or transmitting diseases like influenza ("the flu"), measles, mumps, rubella, and chickenpox (varicella).
- Getting vaccinated before you are placed at risk** is the most efficient and effective way to protect your health.
- All DHCP should receive the vaccines recommended by the U.S. Public Health Service** Advisory Committee on Immunization Practices (ACIP). See Appendix C, p.154
- DHCP who do not directly provide patient care but come into contact with patients or patient materials also should be vaccinated** (for example, administrators and lab personnel).



Common Questions & Answers

If I get vaccinated, I will never get infected, right?

No vaccine is 100% effective, but most come close. CDC reports that the measles vaccine is about 97% effective and influenza vaccination can reduce the risk of flu illness by about 40-60% overall.

Today's vaccines are very safe. Most side effects are minor and temporary, such as a sore arm or a mild fever. Taking an over-the-counter pain reliever/fever reducer before and after vaccination can help with these symptoms.

Before receiving any vaccine, however, be sure to give the healthcare provider a full medical history, including any allergies.

How can I obtain the recommended vaccines?

Your employer is required to provide or pay for the Hepatitis B vaccine. If you have not received your vaccine, you should discuss how to access vaccination services with either your employer or Infection Control Coordinator. For all other vaccines, consult with your primary healthcare provider.

My office does not have a medical provider/facility to handle our occupational health needs. How can we find one?

Good choices for your practice's medical facility include an infectious disease specialist or an occupational health clinic (these facilities often are associated with universities or teaching hospitals, and are available as free-standing clinic in many locations). Any can handle recommended vaccinations and should be well-versed and current in managing occupational injuries and other exposures.

Be sure to get information on where to go for after-hours exposure management. As you will read in Ch. 3, timing of injury evaluation and management is critical. An exposure is a medical emergency. Exposures that happen on Saturday morning can't wait until Monday; they need to be managed *now*.

Include the name and contact information of the medical provider in your training materials and exposure control plan, and be sure to have maps and directions handy to save time in getting to the treatment facility.

