

General Recommendations for Infection Control Practices for Dental Offices

The purpose of this document is to assist you in performing a general review of your office's infection control practices and cites the most common violations identified and/or questions asked during inspections. This document does not include all infection control or OSHA requirements for which you may be responsible. Please note that a regulatory investigation may identify a violation of infection control standards that is not included in this document. You are responsible for being familiar with and complying with all applicable requirements. Please refer to CDC's MMWR Guidelines for Infection Control in Dental Health-Care Settings – 2003 for CDC requirements, and OSHA's Bloodborne Pathogens Standard and Hazard Communication Standard for complete requirements.

Evidence of education & training

- Provide all Dental Health Care Personnel (DHCP) on initial employment at a minimum, annually, with education and training regarding occupational exposure to potentially infectious agents and infection-control procedures/protocols appropriate for and specific to their assigned duties.
- Provide educational information appropriate in content and vocabulary to the educational level, literacy, and language of the DHCP.

Immunizations

- Develop a written comprehensive policy regarding immunizing DHCP, including a list of all required and recommended immunizations.
- Refer DHCP to a prearranged qualified healthcare professional or to their own health-care professional to receive all appropriate immunizations based on the latest recommendations as well as their medical history and risk for occupational exposure.

Exposure prevention & postexposure management

- Develop a written comprehensive postexposure management and medical follow-up program.
- Include policies and procedures for prompt reporting, evaluation, counseling, treatment, and medical follow-up of occupational exposures.
- Establish mechanisms for referral to a qualified health-care professional for medical evaluation and follow-up.
- Conduct a baseline TST, preferably by using a two-step test, for all DHCP who might have contact with persons with suspected or confirmed infectious TB, regardless of the risk classification of the setting.

Medical conditions, work related illness, work restrictions

- Develop and have readily available to all DHCP, comprehensive written policies regarding work restriction and exclusion that include a statement of authority defining who can implement such policies.
- Develop policies for work restriction and exclusion that encourage DHCP to seek appropriate preventive and curative care and report their illnesses, medical conditions, or treatments that can render them more susceptible to opportunistic infection or exposures; do not penalize DHCP with loss of wages, benefits, or job status.
- Develop policies and procedures for evaluation, diagnosis, and management of DHCP with suspected or known occupational contact dermatitis.

- Seek definitive diagnosis by a qualified healthcare professional for any DHCP with suspected latex allergy to carefully determine its specific etiology and appropriate treatment as well as work restrictions and accommodations.

Records maintenance, data management, and confidentiality

- Establish and maintain confidential medical records (e.g., immunization records and documentation of tests received as a result of occupational exposure) for all DHCP.
- Ensure that the practice complies with all applicable federal, state, and local laws regarding medical recordkeeping and confidentiality.
- Develop a written Exposure Control Plan, outlining office strategies to comply with OSHA's Bloodborne Pathogens Standard. (reviewed & updated annually)
- Ensure that the office has a written Hazard Communication Program, listing all known hazardous chemicals present in the office. (OSHA)

HBV Vaccination

- Offer the HBV vaccination series to all DHCP with potential for occupational exposure to blood or other potentially infectious material.
- Provide employees appropriate education regarding the risks of HBV transmission and the availability of the vaccine. Employees who decline the vaccination should sign a declination form to be kept on file with the employer.

Hand Hygiene

- Develop a written office protocol for glove changing.
- Perform hand hygiene with either a nonantimicrobial or antimicrobial soap or water when hands are visibly dirty or contaminated with blood or other potentially infectious material. If hands are not visibly soiled, an alcohol-based hand rub can also be used. Follow the manufacturer's instructions.
- Indications for hand hygiene include:
 - when hands are visibly soiled;
 - after barehanded touching of inanimate objects likely contaminated by blood, saliva, or respiratory secretions;
 - before and after treating each patient;
 - before donning gloves; and
 - immediately after removing gloves.

Masks, Protective Eyewear, and Face Shields

- Wear a surgical mask and eye protection with solid side shields or a face shield to protect mucous membranes of the eyes, nose, and mouth during procedures likely to generate splashing or spattering of blood or other body fluids.
- Change masks between patients or during patient treatment if the mask becomes wet.

Protective Clothing

- Wear protective clothing (e.g., reusable or disposable gown, laboratory coat, or uniform) that covers personal clothing and skin (e.g., forearms) during procedures likely to generate splashing or spattering of blood or other body fluids.
- Employees cannot take protective clothing home to launder.

- Change protective clothing if visibly soiled; change immediately or as soon as feasible if penetrated by blood or other potentially infectious fluids.
- Remove barrier protection, including gloves, mask, eyewear, and gown before departing work area (e.g., dental patient care, instrument processing, or laboratory areas).

Gloves

- Wear medical gloves when a potential exists for contacting blood, saliva, mucous membranes, or other potentially infection materials (OPIM).
- Wear a new pair of medical gloves for each patient, remove them promptly after use, and wash hands immediately to avoid transfer of microorganisms to other patients or environments.
- Remove gloves that are torn, cut, or punctured as soon as feasible and wash hands before re-gloving.
- Do not wash surgeons or patient examination gloves before use, or wash, disinfect, or sterilize gloves for reuse.
- Ensure that appropriate gloves in the correct size are readily accessible.
- Use appropriate gloves (e.g., puncture- and chemical-resistant utility gloves) when cleaning instruments and performing housekeeping tasks involving contact with blood or OPIM.

Contact Dermatitis and Latex Hypersensitivity

- Educate DHCP regarding the signs, symptoms, and diagnoses of skin reactions associated with frequent hand hygiene and glove use.
- Screen all patients for latex allergy (e.g., take health history and refer for medical consultation when latex allergy is suspected).
- Ensure a latex-safe environment for patients and DHCP with latex allergy.

Sterilization and Disinfection of Patient-Care Items

- Use only FDA-cleared medical devices for sterilization and follow the manufacturer's instructions for correct use.
- Clean and heat-sterilize both critical and semicritical dental instruments before each use.
- If a semicritical item is heat-sensitive, it should, at a minimum, be processed with high-level disinfection.
- Although dental handpieces are considered a semicritical item, they should always be heat-sterilized between uses and not high-level disinfected.
- Allow packages to dry in the sterilizer before they are handled to avoid contamination.
- Use of heat-stable semicritical alternatives is encouraged.
- Single-use disposable instruments are acceptable alternatives if they are used only once and disposed of correctly.
- Do not use liquid chemical sterilants/high-level disinfectants for environmental surface disinfection or as holding solutions.

- Ensure that noncritical patient-care items are barrier-protected or cleaned, or if visibly soiled, cleaned and disinfected after each use with an EPA-registered hospital disinfectant. If visibly contaminated with blood, use an EPA-registered hospital disinfectant with a tuberculocidal claim.
- Inform DHCP of all OSHA guidelines for exposure to chemical agents used for disinfection and sterilization. Using this report, identify areas and tasks that have potential for exposure.

Infection-control categories of patient-care instruments

Category : **Critical**

Instrument or Item:

Penetrates soft tissue, contacts bone, enters into or bloodstream or other normally sterile tissue

Surgical instruments, periodontal scalers, contacts the scalpel blades, surgical dental burs

Infection-control categories of patient-care instruments

Category : **Semicritical**

Instrument or Item:

Contacts mucous membranes or non-intact skin; will Not penetrate soft tissue, contact bone, enter into or contact the bloodstream or other normally sterile tissue.

Dental mouth mirror, amalgam condenser, reusable dental impression trays, handpieces*

Receiving, Cleaning, and Decontamination Work Area

- Minimize handling of loose contaminated instruments during transport to the instrument processing area. Use work-practice controls (e.g., carry instruments in a covered container) to minimize exposure potential (II). Clean all visible blood and other contamination from dental instruments and devices before sterilization or disinfection procedures.
- Use automated cleaning equipment (e.g., ultrasonic cleaner or washer-disinfector) to remove debris to improve cleaning effectiveness and decrease worker exposure to blood.
- Use work-practice controls that minimize contact with sharp instruments if manual cleaning is necessary (e.g., long-handled brush).
- Wear puncture- and chemical-resistant/heavyduty utility gloves for instrument cleaning and decontamination procedures.
- Wear appropriate PPE (e.g., mask, protective eyewear, and gown) when splashing or spraying is anticipated during cleaning.

Preparation and Packaging

- Use a container system or wrapping compatible with the type of sterilization process used and that has received FDA clearance.
- Before sterilization of critical and semicritical instruments, inspect instruments for cleanliness, then wrap or place them in containers designed to maintain sterility during storage (e.g., cassettes and organizing trays).
- Critical and semicritical instruments that will be stored should be wrapped or placed in containers (e.g., cassettes or organizing trays) designed to maintain sterility during storage.

Sterilization of Unwrapped Instruments

- Clean and dry instruments before the unwrapped sterilization cycle.
- Use mechanical and chemical indicators for each unwrapped sterilization cycle (i.e., place an internal chemical indicator among the instruments or items to be sterilized).

- Semicritical instruments that will be used immediately or within a short time can be sterilized unwrapped on a tray or in a container system, provided that the instruments are handled aseptically during removal from the sterilizer and transport to the point of use.
- Critical instruments intended for immediate reuse can be sterilized unwrapped if the instruments are maintained sterile during removal from the sterilizer and transport to the point of use (e.g., transported in a sterile covered container).

Sterilization Monitoring

- Use mechanical, chemical, and biological monitors according to the manufacturer's instructions to ensure the effectiveness of the sterilization process.
- Place items/packages correctly and loosely into the sterilizer so as not to impede penetration of the sterilant.
- Do not use instrument packs if mechanical or chemical indicators indicate inadequate processing.
- Monitor sterilizers at least weekly by using a biological indicator with a matching control (i.e., biological indicator and control from same lot number).
- Use a biological indicator for every sterilizer load that contains an implantable device. Verify results before using the implantable device, whenever possible.

Environmental Infection Control

Clinical Contact Surfaces

- Use surface barriers to protect clinical contact surfaces, particularly those that are difficult to clean (e.g., switches on dental chairs) and change surface barriers between patients.
- Clean and disinfect clinical contact surfaces that are not barrier-protected, by using an EPA registered hospital disinfectant with a low- (i.e., HIV and HBV label claims) to intermediate-level (i.e., tuberculocidal claim) activity after each patient. Use an intermediate-level disinfectant if visibly contaminated with blood.

Housekeeping Surfaces

- Clean housekeeping surfaces (e.g., floors, walls, and sinks) with a detergent and water or an EPA registered hospital disinfectant/detergent on a routine basis, depending on the nature of the surface and type and degree of contamination, and as appropriate, based on the location in the facility, and when visibly soiled.

Spills of Blood and Body Substances

- Clean spills of blood or OPIM and decontaminate surface with an EPA-registered hospital disinfectant with low- (i.e., HBV and HIV label claims) to intermediate-level (i.e., tuberculocidal claim) activity, depending on size of spill and surface porosity.

Regulated Medical Waste

- Develop a medical waste management program. Disposal of regulated medical waste must follow federal, state, and local regulations.
- Ensure that DHCP who handle and dispose of regulated medical waste are trained in appropriate handling and disposal methods and informed of the possible health and safety hazards.

Management of Regulated Medical Waste in Dental Health-Care Facilities

- Use a color-coded or labeled container that prevents leakage (e.g., biohazard bag) to contain non-sharp regulated medical waste.
- Place sharp items (e.g., needles, scalpel blades, orthodontic bands, broken metal instruments, and burs) in an appropriate sharps container (e.g., puncture resistant, color-coded, and leakproof). Close container immediately before removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.
- Pour blood, suctioned fluids or other liquid waste carefully into a drain connected to a sanitary sewer system, if local sewage discharge requirements are met this an acceptable method of disposal. Wear appropriate PPE while performing this task (IC).

Dental Unit Waterlines, Biofilm, and Water Quality

- Use water that meets EPA regulatory standards for drinking water for routine dental treatment output water.
- Consult with the dental unit manufacturer on the need for periodic maintenance of anti-retraction mechanisms.

Special Considerations for Dental Handpieces and Other Devices Attached to Air and Waterlines

- Clean and heat-sterilize handpieces and other intraoral instruments that can be removed from the air and waterlines of dental units between patients.
- Follow the manufacturer's instructions for cleaning, lubrication, and sterilization of handpieces and other intraoral instruments that can be removed from the air and waterlines of dental units.
- Do not surface-disinfect or use liquid chemical sterilants, or ethylene oxide on handpieces and other intraoral instruments that can be removed from the air and waterlines of dental units.
- Ensure that all dental handpieces are heat sterilized after each use.

Dental Radiology

- Wear gloves when exposing radiographs and handling contaminated film packets. Use other PPE (e.g., protective eyewear, mask, and gown) as appropriate if spattering of blood or other body fluids is likely.
- Use heat-tolerant or disposable intraoral devices whenever possible (e.g., film-holding and positioning devices). Clean and heat-sterilize heat tolerant devices between patients. At a minimum, high-level disinfect semicritical heatsensitive devices, according to manufacturer's instructions.
- Transport and handle exposed radiographs in an aseptic manner to prevent contamination of developing equipment.
- The following apply for digital radiography sensors:
 - Use FDA-cleared barriers.
 - Clean and heat-sterilize, or high-level disinfect, between patients, barrier-protected semicritical items. If the item cannot tolerate these procedures then, at a minimum, protect with an FDA-cleared barrier and clean and disinfect with an EPA-registered hospital disinfectant with intermediate-level (i.e., tuberculocidal claim) activity, between patients. Consult with the manufacturer for methods of disinfection and sterilization of digital radiology sensors and for protection of associated computer hardware.

Single-Use (Disposable) Devices

- Use single-use devices for one patient only and dispose of them appropriately.

Hazardous Materials

- Ensure that MSDS Files for Hazardous Chemicals are Kept in the Office and are accessible to employees.
- Label all chemicals either with the manufacturer labels or secondary labels with appropriate hazard warnings.
- Label all shelves and cabinets that house hazardous chemicals appropriately with hazard warnings.
- Ensure that the office has a First Aid Kit present.
- Ensure that the office has a working eyewash station.
- Prominently display the Job Safety and Health Protection Poster.

Miscellaneous

- Ensure that the office has a written fire protection and EMS plan that all employees are familiar with.