

# Safe Injection Practices in Dentistry

*Safe injection practices are a set of measures that clinicians should follow to perform injections in an optimally safe manner for patients, health care personnel, and others.*

**T**he Standard Precautions section of CDC's *2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings* provides evidence-based recommendations for safe injection practices and reflects the minimum standards that health care personnel should follow to prevent transmission of infections in health care settings.

Dental health care professionals frequently handle parenteral medications; some use fluid infusion systems (e.g., for patients undergoing conscious sedation). The CDC *Guidelines for Infection Control in Dental Health-Care Settings, 2003* provides evidence-based recommendations on Aseptic Technique for Parenteral Medications and Single-use or Disposable Devices that reflect the minimum standards dental health care personnel should follow to prevent transmission of infections in dental settings. Additionally, safe injection practices are typically part of state professional licensing-board regulations for dental health care staff and their practices.

Despite these recommendations and guidelines, there are ongoing reports of adverse events, including patient notifications, resulting from health care and dental personnel failing to adhere to Standard Precautions and basic infection control practices. In dental settings, failures include reuse of disposable needles and syringes used for IV sedation.

Although there have been no recent confirmed transmissions of infection in dentistry resulting from unsafe injection practices, numerous outbreaks have been reported in other health care settings. Unsafe injection practices that have resulted in disease transmission have most commonly included—

- Using the same syringe to administer medication to more than one patient, even if the needle was changed or the injection was administered through an intervening length of intravenous (IV) tubing.
- Accessing a medication vial or bag with a syringe that has already been used to administer medication to a patient, then reusing contents from that vial or bag for another patient.
- Using medications packaged as single-dose or single-use for more than one patient.
- Failing to use aseptic technique when preparing and administering injections. Outbreaks related to unsafe injection practices indicate that some health care personnel are unaware of, do not understand, or do not adhere to basic principles of infection control and aseptic technique (specific practices and procedures performed under carefully controlled conditions to minimize contamination by microorganisms).

**For these reasons,**

**CDC reminds dental practitioners of the following practices that are critical for patient safety:**

- Never administer medications from the same syringe to more than one patient, even if the needle is changed or if you are injecting through an intervening length of IV tubing.
  - After a syringe or needle has been used to enter or connect to a patient's IV, it is contaminated and should not be used on another patient or to enter a medication vial.
- Never enter a medication vial, bag, or bottle with a used syringe or needle.
- Never use medications packaged as single-dose or single-use for more than one patient—this includes ampoules, cartridges, and bags or bottles of intravenous solutions.
  - Assign medications packaged as multi-dose vials to a single patient whenever possible.
  - Never use bags or bottles of intravenous solution as a common source of supply for more than one patient.
  - Follow proper infection control practices during the preparation and administration of injected medications.
  - Never combine the leftover contents of a syringe or single-use vials for later use.

### Related Links

**CDC's Injection Safety**  
**CDC's Safe Injection Practices to Prevent**  
**Transmission of Infections to Patient**

