

# Section 11 Sterilization Room Protocols

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## Sterilization Room Protocols

The College of Dentistry sterilization room has two main functions:

- To process and sterilize all the dental instruments and
- To perform instrument management functions

### Zones in the Sterilization Area

The sterilization area is divided into three zones which flow from dirty to sterile.

#### The Dirty Zone:

This is where the used dental instruments are located. These instruments have potentially been exposed to blood or body fluids. Infectious waste containers are also found in this area.

#### The Disinfected Zone:

This area is where items which have undergone a disinfection technique that kills most micro-organisms are placed.

#### The Clean / Sterilized Zone:

This is where items that have been through a sterilization process are kept and stored for future use.

### Clinic Attire for Sterilization Staff

Clean, matching scrub tops and bottoms must be worn when working in the sterilization areas.

Solid construction (no open toes or open sides) shoes must be worn.

After use, protective attire must be removed and placed into laundry or disposal bags before leaving the dental treatment facility.

A high temperature (~60°C -70°C) wash cycle with chlorine bleach (sodium hypochlorite), followed by machine drying (~100°C) is recommended if clothing is visibly soiled with blood or other body fluids. A normal laundry cycle, dry cleaning, or steam pressing will also kill HIV.

#### Personal Protective Equipment:

When contact with blood or other body fluids is anticipated all sterilization room associates must wear appropriate attire to prevent skin and mucous membrane exposure. Personal Protective Equipment must be worn when working in the Dirty Zone of the sterilization area. (See Personal Protective Equipment on section 4).

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## Instrument Management

### Instrument Sorting and Disinfection

Each student must return all borrowed, soiled instrument to the appropriate window of the sterilization area. They must bring their I-card with them and swipe the card through the card reader in order to have their soiled instruments scanned back into register their receipt.

#### **The dirty instruments are sorted into groups:**

1. Instrument cassettes are placed into the rack in the washer / disinfectant.
2. Loose instruments are placed into a basket in the washer, disinfectant, or ultrasonic cleaner.
3. Bur and File cassettes are placed into baskets in the Ultrasonic Cleaner.
4. Handpiece cassettes are placed on the counter in the dirty zone. (See processing of handpieces below.)

Once the washer/disinfectant is full the cycle is started.

Once the ultrasonic cleaner is full the lid is securely closed and the unit is started. Let the unit run for as long as necessary to remove all debris from the instruments (at least 5 minutes). (See ultrasonic cleaners on section 3).

### Instrument Inspection and Bagging

After the completion of the washer/disinfectant cycle the instruments are removed from the machine and placed in the disinfected zone.

#### **The cassettes are opened and inspected.**

Broken and Missing Instruments:

- Broken instruments are removed from the cassette.
- If a replacement instrument is available the proper color rubber bands must be placed on the new instrument and then the new instrument is placed into the cassette. The cassette is then bagged and set on the rack for sterilization.
- If no replacement instrument is available the cassette is bagged and a note is placed on the sterilization bag indicating what instrument is missing. The missing instrument in that particular cassette is noted in Axium.
- The sterilization supervisor is informed, so a new instrument can be ordered.

All instruments present and in good condition:

- The cassette is bagged so that the bar code may be read through the clear plastic. Set bagged cassette on the cart for sterilization.

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### Loose Instruments

The loose instruments are inspected and are treated in a similar manner as the instrument cassettes.

### Bur and File Blocks

The bur and file blocks are opened and inspected:

Missing burs are replaced from stock.

All instruments cassettes, bur and file blocks and loose instruments are bagged so the bar code may be read through the clear plastic.

The bagged block is placed on the rack to go into the sterilizer.

### Handpiece Inspection, Cleaning, and Bagging:

The Handpieces are not disinfected so work is performed in Dirty Zone and Personal Protective Equipment is worn.

The handpiece cassette is opened and the contents inspected.

1. Sterilization personnel checks that the correct number of components are present. If any component is missing:
  - If a replacement component is available it is placed into the cassette. The cassette is then bagged and set on the cart for sterilization.
  - If no replacement instrument is available the cassette is bagged and a note is placed on the sterilization bag indicating what instrument is missing. The missing instrument in that particular cassette is noted in Axium.
  - The sterilization supervisor is informed, so a new component can be ordered.
2. Using gauze moistened with alcohol the handpiece is wiped down to remove any debris.
3. Using a cotton tip applicator moistened with alcohol, wipe the inside of the base of the handpiece motor.
4. Handpiece Lubrication:
  - Kavo handpiece components must be cleaned and lubricated after each use. Equipment is available for sterilization staff to perform this function on a regular basis.
  - Wipe down handpiece components with alcohol after being removed from the lubricating equipment

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- All other brands of handpieces are to be cleaned and lubricated following the manufacturer's directions.
5. Place all the components back into the cassette.
  6. Wrap the cassette so that the bar code can be read through the clear plastic.
  7. Place the cassette on the cart to be sterilized.

### Storage of Sterile Instruments

Store instruments in a clean, dry environment in a manner that maintains the integrity of the package. Sterile materials should be stored at least 8 inches above the floor in an area that is clean, dry, dust free with limited access.

The shelf life of sterilized, wrapped instruments is event-related, not time-related. Thus, the shelf life of a package ends when the integrity of the package becomes compromised; e.g., torn, punctured or moistened.

Instruments must be repackaged and re-sterilized if there is any sign of damage to the wrapping. If any part of the sterilized instrument package becomes damp, the instrument is no longer considered sterile and must be re-sterilized.

Any instrument package that was exposed during patient treatment must not be returned to storage. The instruments must be removed and re-sterilized.

Labels or other information added to an instrument package after it has been sterilized must be added via a pencil or piece of tape containing the information. Do not write on sterilized paper packages with ink. If a pencil is used, take care to avoid puncturing the paper. Do not staple or paperclip anything to the package.

*Puncturing and writing on packages with ink compromise the integrity of the paper and permit germs to enter the package.*

### Clinic Carts

When using a clinic cart (i.e. Radiology or PG Endodontics) soiled instruments will be brought to the sterilization area by a dental assistant.

Remove soiled cassettes from cart and process them in the same manner listed above. Then use a surface disinfectant (Cavicide) to clean and disinfect the cart.

1. Clean the surface using the Cavicide and paper towels.

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2. Spray the surface liberally with the Cavicide and make sure it remains moist for at least 10 minutes.
3. Dry the surface with paper towels or allow it to air dry.
4. The cart is now ready to receive the next set of dental instruments