

Sterilization

- Sterilization is a process that involves killing ALL forms of life, including blood-borne viruses such as hepatitis B, hepatitis C and HIV.
- Instruments that pierce or penetrate the skin or hold sterile items must be sterile. These items are called “critical items.”
- Critical items must be sterilized because they pose the highest risk of spreading blood-borne diseases.
- Instruments **MUST** be cleaned before sterilization.
- Instruments that are intended to pierce the skin or penetrate sterile tissue (critical instruments) must be maintained in sterile packaging until time of use.
- The use of pre-packaged, sterile, single-use, disposable items is recommended.
- Sterility must be maintained until point of use.
- For items purchased as pre-packaged and sterile the operator must maintain a record of where, when and who the materials were purchased from for tracking purposes.
- Equipment/instruments purchased as sterile must be used before the expiration date if one is given.
- Use only packaging materials that are specifically designed and manufactured for the sterilizer being used.
- Sterile packages no longer sealed and in good condition must be reprocessed (cleaned and sterilized).
- Inspect packages for wetness. If packages are wet, they must be reprocessed (cleaned and sterilized).
- Do not handle sterile packages that are warm or wet.
- Sterile instruments/packages should be stored at least 1 meter away from sinks, drains, moisture and vermin. Containers used for storage of sterile instruments should be moisture resistant and cleanable.
- Do not write on the paper side of paper/plastic pouches as the pen may puncture the paper. Unless the instructions say otherwise, you can write on the plastic using a felt-tipped marker.
- Steam must be able to circulate around each package. Do not over load the sterilizer.
- Paper/plastic packages when placed side by side should be placed in a manner to allow for the plastic side facing the paper side of the next package. This is to allow the air and steam to pass through the packages.

Fact Sheet

Approved methods of sterilization:

For all sterilizers, instruments must be packaged and the sterilizer must be intended for wrapped instruments as per manufacturer's specifications.

- Chemical Autoclave: Uses heat and a chemical solution under pressure to sterilize.
- Steam autoclave: Should be CSA approved with a drying cycle for the packaging. Autoclaves with print outs are highly recommended.
- Dry heat sterilizer: Must have a functioning thermometer and instruments must be packaged.

Times and Temperatures Required for Dry Heat Sterilizers

• 171 C	• 340 F	• 60 Minutes
• 160 C	• 320 F	• 120 Minutes
• 149 C	• 300 F	• 150 Minutes
• 141 C	• 285 F	• 180 Minutes

Methods *not* approved for sterilization:

- Glass-bead "sterilizer"
- Ultraviolet light ("UV Sterilizer")
- Ultrasonic cleaner
- Pressure cookers or cooking ovens
- Microwaves
- Boiling water

Chemical sterilants are not recommended for use

Ultrasonic Cleaners used for cleaning must:

- Be used with the lid on
- Be operated according to the manufacturer's instructions
- Be cleaned and disinfected at the end of each day's use
- Be stored dry after cleaning and disinfection
- Have the cleaning solution changed daily when used or more often when visibly dirty

For information on monitoring mechanical sterilizers refer to Mechanical Sterilization Fact Sheet.

Fact Sheet