

## METHODS OF DISINFECTION/STERILIZATION (1700)

(No. 3 October 1992)

<b>Sterilization:</b>	Destroys:	All forms of microbial life including high numbers of bacterial spores.
	Methods:	Steam under pressure (autoclave), gas (ethylene oxide), dry heat, or immersion in EPA-approved chemical "sterilant" for prolonged period of time, e.g., 6-10 hours or according to manufacturers' instructions.  NOTE: liquid chemical "sterilants" should be used <b>only</b> on those instruments that are impossible to sterilize or disinfect with heat.
	Use:	For those instruments or devices that penetrate skin or contact normally sterile areas of the body, e.g., scalpels, needles, etc. Disposable invasive equipment eliminates the need to reprocess these types of items. When indicated, however, arrangements should be made with a health-care facility for reprocessing of reusable invasive instruments.
<b>High-Level Disinfection</b>	Destroys:	All forms of microbial life <b>except</b> high numbers of bacterial spores.
	Methods:	Hot water pasteurization (80-100 C, 30 minutes) or exposure to an EPA-registered "sterilant" chemical as above, except for a short exposure time (10-45 minutes or as directed by the manufacturer).
	Use:	For reusable instruments or devices that come into contact with mucous membranes (e.g., laryngoscope blades, endotracheal tubes, etc.).
<b>Intermediate-Level Disinfection</b>	Destroys:	Mycobacterium tuberculosis, vegetative bacteria, most viruses, and most fungi, but does not kill bacterial spores.

Methods: EPA-registered "hospital disinfectant" chemical germicides that have a label claim for tuberculocidal activity; commercially available hard-surface germicides or solutions containing at least 500 ppm free available chlorine (a 1:100 dilution of common household bleach-approximately 1/4 cup bleach per gallon of tap water).

Use: For those surfaces that come into contact only with intact skin, e.g., stethoscopes, blood pressure cuffs, splints, etc., and have been visibly contaminated with blood or bloody body fluids. Surfaces must be pre-cleaned of visible material before the germicidal chemical is applied for disinfection.

**Low-Level Disinfection:**

Destroys: Most bacteria, some viruses, some fungi, but not *Mycobacterium tuberculosis* or bacterial spores.

Methods: EPA-registered "hospital disinfectants" (no label claim for tuberculocidal activity).

Use: These agents are excellent cleaners and can be used for routine housekeeping or removal of soiling in the absence of visible blood contamination.

**Environmental Disinfection:**

Environmental surfaces which have become soiled should be cleaned and disinfected using any cleaner or disinfectant agent which is intended for environmental use. Such surfaces include floors, woodwork, ambulance seats, countertops, etc.

**IMPORTANT:**

To assure the effectiveness of any sterilization or disinfection process, equipment and instruments must first be thoroughly cleaned of all visible soil.