

Training Module

Cleaning: Rigid Endoscopes



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REMEMBER: DISTILLED WATER

Distilled water is recommended for the cleaning and rinsing of telescopes.

Preparation & Cleaning

A little effort goes a long way to keeping your surgical equipment in proper condition, and following these simple guidelines is the first step.

- 1) Disconnect the light cable from the telescope.
- 2) Remove the light cable adapters.
- 3) Place the telescope in a plastic container immediately after use, and soak with a neutral pH enzymatic cleaning solution or Metrex. Contact the telescope manufacturer for specific recommendations on cleaning solution formulations.
- 4) Remove any residual blood, protein material, and contaminants with a sponge, soft cloth, or a cotton cloth applicator using a neutral pH enzymatic cleaning solution or a MetriSponge. Always follow the instrument manufacturer's instructions regarding specific brands of cleaning solution.
- 5) Rinse thoroughly in distilled water to remove any residual cleaning solution.
- 6) Clean the lenses and the fiber optic inlet post with alcohol wipes or sterile cotton tip applicators soaked in 70% alcohol to remove any residue or film. Wipe the optical elements clean with a lint-free soft cloth.
- 7) Dry the entire telescope with a lint-free soft cloth or filtered, compressed air.
- 8) After cleaning, inspect the telescope for cleanliness and damage.
- 9) Contact the instrument manufacturer for specific information regarding the use of instrument washing machines or ultrasonic baths.

Inspection

Rigid endoscopes should be inspected for signs of damage before and after every surgical procedure. If there is any doubt as to whether an endoscope is safe to use, contact IRN. Proper inspection includes the following:

- 1) Working Shaft

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Inspect the entire surface of the telescope's working shaft for signs of damage such as dents, bends or scratches.

2) Objective Lens and Eyepiece

Inspect the objective lens (distal tip) and eyepiece for scratches, chips, fingerprints, or residual debris by observing reflected light on the surface of the eyepiece and objective lens. These surfaces should be smooth and shiny. To check for clarity of view, slowly rotate the telescope while looking through the eyepiece. A partial or completely obstructed view may be the result of a damaged lens within the eyepiece or the telescope shaft. Foggy images may result from moisture entering a damaged seal around the lens or lens separation.

3) Light Post Adapter

Check for broken light fibers by holding the endoscope up to a bright light source and looking at the light post adapter. Broken light fibers will appear as black specks against an otherwise glassy background. If more than 10 -15% of the fiber bundles are damaged, return the endoscope to the manufacturer for an evaluation. If light is not being transmitted properly, the physician's ability to visualize clinical pathologies may be significantly impaired. Do not use telescopes when signs of damage are present.



CAUTION: AUTOCLAVING & FLASH STERILIZATION

Always check with the instrument manufacturer prior to autoclaving or flash sterilizing a telescope for recommended procedures.