Care and Handling of Ophthalmic Surgical Instruments

Proper care and handling of ophthalmic instruments is required to ensure that they remain in good working condition in order to provide a long and useful life. Proper cleaning and disinfecting of surgical instruments is very important since ophthalmic instruments are very delicate and can become damaged during the cleaning and sterilizing process.

**GENERAL GUIDELINES:**

To minimize damaging your ophthalmic instruments please adhere to the following guidelines:

1. Subsequent to use during the surgical procedure, or immediately after the procedure is done, wipe gross body fluids off of the instruments using an instrument wipe moistened with deionized water. This will prevent blood and body fluids from drying on the instruments that can lead to rusting due to the salinity of those fluids. This is especially true for scissors and needleholders where the junctions are found.

2. Keep silicone tip covers on delicate, sharp tipped instruments such as forceps and hooks. This will help prevent bending, barbing, and breaking of the tips. This will also prevent you from getting injured by a sharp instrument.

3. When storing instruments, place delicate instruments on top of the heavier ones. This will decrease the chance of bending them and there will also be less chance of the sterile packaging becoming damaged.

4. Do not overfill instrument sets. Overcrowding of instruments will cause them to become misshapen. Multilevel trays and rubberized mats to line the trays work nicely to prevent instrument damage.

5. Do not use an instrument tray that is too large for the number of instruments it will hold. The instruments can easily move around within the tray during the wrapping process, which can cause them to bang into each other damaging the tips.

**DISINFECTION**

Due to the potential for residual chemicals to remain on the instrument and cause an adverse reaction, MYCO does not recommend the use of liquid chemical disinfectants or sterilants with our ophthalmic surgical instruments.
MANUAL CLEANING INSTRUCTIONS

1. Disassemble the instrument if applicable and inspect the instrument for damage or corrosion.

2. Rinse the instrument by holding it under running water for at least 30 – 45 seconds, while rotating the instrument to ensure that you expose all surfaces and cavities to the flowing water. Additional rinsing may be required depending on the size and extent of soil and debris on the instrument.

3. Place the instrument into a clean basin filled with fresh neutral pH cleaning solution prepared according to the solution manufacturer. Use only cleaning solutions that are specifically labeled for use with surgical instruments. Ensure that the instrument is fully immersed in the cleaning solution.

4. Gently scrub all surfaces of the instrument using a soft cleaning brush while, at the same time, keeping the instrument submerged in the cleaning solution for at least 5 minutes. Clean the instrument until all visible soil and debris has been removed.

5. Rinse the instrument by holding it under cold running water for at least 30 -45 seconds, rotating the instrument to expose all surfaces and cavities to flowing water. Additional rinsing may be necessary depending on the size of the instrument and the amount of soil.

6. Place the instrument in an ultrasonic bath filled with fresh neutral pH cleaning solution (labeled for use with surgical instruments) for 5 minutes. Ensure that the instrument is fully immersed in the cleaning solution. Do not overload the ultrasonic bath or allow instruments to contact one another during cleaning. Do not process dissimilar metals in the same ultrasonic cleaning cycle.

7. The cleaning solution should be changed before it becomes visibly soiled. The ultrasonic bath should be drained and cleaned each day or more frequently if visible soiling/debris is evident. Follow the instructions of the manufacturer for the cleaning and draining of the ultrasonic bath.

8. Repeat the aforementioned steps as necessary if visible soil or debris remains on the instrument.

9. Rinse the instrument by holding it under warm (27 °C – 44 °C; 80 °F – 100 °F) running water for at least 30 - 45 seconds, rotating the instrument to expose all surfaces and cavities to flowing water. Additional rinsing may be necessary depending on the size of the instrument.

10. If the instrument has lumens the lumens should be flushed using a syringe filled with 50cc of warm distilled or deionized water using a stopcock.
Carefully dry the instrument with a lint free surgical wipe or blow the instrument dry with micro filtered forced air.

Following cleaning of the instrument, visually inspect the instrument to ensure that all visible soil and debris has been removed and that the instrument operates correctly.

Package the instrument in a suitable sterilization pouch or instrument tray per your institution’s policies and procedures.

Unless otherwise indicated in the directions for use for a specific instrument, instruments and instrument trays may be sterilized by the following steam sterilization methods:

1. Pre-vacuum High Temperature Autoclave: 275°F (134°C) for 3 minutes - wrapped.

   Note: As per ANSI/AAMI ST79: 2010 and A1: 2010 270° (132°C) for 4 minutes and 275° F (135°C) for 3 minutes are acceptable minimum cycle times for dynamic-air-removal steam sterilization cycles.

2. Standard Gravity Autoclave: 250°F (121°C) for 30 minutes - wrapped.

3. High Speed (Flash) Autoclave: 270° (132°C) for 10 minutes - unwrapped.

Caution: Flash sterilization processing should be reserved for emergency reprocessing only and should not be employed for routine sterilization processing of the instrument. Flash sterilized items should be used immediately, and not stored for later use. See ANSI/AAMI ST79: 2010 and A1: 2010 as well as your institution’s policies and procedures for restrictions regarding the use of flash sterilization.
CAUTION:

- Disposable, single use instruments should not be reprocessed.

- The instrument and/or instrument tray should be processed through a complete sterilization drying cycle since residual moisture from autoclaves can promote staining, discoloration, and rust.

STORAGE

Following sterilization processing, packaged instruments may be stored in a clean area free of temperature and humidity extremes following your institution’s policies.

For additional information regarding the reprocessing of ophthalmic instruments see:


***Not all surgical instruments are the same. Instruments can become damaged if any one of these recommendations are not properly performed***