



### PRE-TREATMENT

Large, non-delicate instruments may be soaked in a corrosion inhibiting detergent (like Alconox - WPI #13740) when other cleaning methods are not practical. Rinse and dry your instruments after soaking them.



# **RINSE**

The first step in properly cleaning your instruments is to rinse off all blood, bodily fluids, and tissue immediately after use. Use plain water, but do not use hot water, because proteinous substances will coagulate.



### RINSE

Rinse instruments thoroughly under running water. While rinsing, open and close scissors, hemostats, needle holders and other hinged instruments to ensure that hinge areas are also rinsed.

### DRY

Dry instruments thoroughly with a clean towel. This minimizes the risk of corrosion and formation of water spots. Use a spray lubricant (WPI #500126) in the hinges to improve the function of the instrument.

# CLEANING

- Mix a product such as Alconox (WPI # 13740) according to the manufacturer's directions and use to it wash the instruments.
- Use appropriate brushes to clean each surgical instrument.
- Use a microbrush to remove debris from the hinged area of scissors, forceps, hemostats, ronguers, needle holders and retractors.
- Use a microbrush to remove the debris from the box lock area and the ratchet of hemostats and needle holders.
- Use a microbrush to clean the delicate tips of tweezers.
- Use a microbrush to remove debris from all moving parts of retractors.
- Use a stiff brush to clean the tip serrations and handle serrations of dressing forceps and needle holders.
- Use a stiff brush to clean the teeth of tissue forceps.
- Brush delicate instruments carefully and handle them separately from general instruments. Ultrasonic cleaning is recommended for delicate instruments like micro scissors (also known as Vannas scissors).

### **INSPECTION**

Inspect all instrument surfaces to ensure they are visibly clean and free of stains and tissue. Inspect each instrument for proper function and condition.

### **LUBRICATION**

Using a surgical instrument lubricant (WPI #500126), lubricate all instruments that have any metal-to-metal action such as scissors, hemostats, needle holders, self retaining retractors, etc.

CAUTION: Do not use WD-40, oil or other industrial lubricants.

# STERILIZATION

#### **AUTOCLAVING**

- 1. Place a towel on bottom of the sterilization tray to absorb excess moisture during autoclaving. Arrange the instruments in the trays.
- 2. Load the autoclave chamber, but do not overload it. Overloading may hinder steam penetration.
- 3. Run your autoclave according to the manufacturer's directions. At the end of the autoclave cycle (before the drying cycle) unlock autoclave door and open it no more than a crack (about 3/4"). Run the dry cycle for the period recommended by the autoclave manufacturer. If the autoclave door is opened fully before the drying cycle, cold room air will rush into the chamber, causing condensation on the instruments. This will result in water stains on instruments and also cause wet packs.

CAUTION: Never lock an instrument during autoclaving. This will prevent the steam from reaching and sterilizing the metal-to-metal surfaces. Heat expansion during autoclaving could cause cracks in hinge areas.



#### **COLD STERILIZATION**

Most cold sterilization solutions require a 10-hour immersion to render instruments sterile, but this prolonged chemical action may be more detrimental to surgical instruments than the 20-minute autoclave cycle. If the instruments only need to be disinfected (clean and free of most microorganisms), cold sterilization is acceptable, since disinfection will take place in only 10 minutes. However, to render the instruments sterile (with absolutely no microorganisms surviving), autoclaving is recommended.

CAUTION: For instruments with tungsten carbide inserts (needle holders, scissors, tissue forceps), do not use solutions containing benzyl ammonium chloride which will destroy the tungsten carbide inserts.

# STORAGE

#### **STORING YOUR INSTRUMENTS**

Instruments should be stored in a clean and dry environment until use.

Examples of suitable storage options include:

steriliziation baskets, sterilization trays, sterilization cassettes, and silicone mats.

#### **STAIN GUIDE FOR STAINLESS STEEL**

Stain color	Cause
Brown/Orange	High pH
Dark Brown	Low pH
Bluish/Black	Reverse plating due to mixed metals during cleaning process
Multicolor	Excessive heat
Light/Dark Spots	Water droplets drying on the surface
Black	Contact with ammonia
Gray	Excessive use of rust remover solution
Rust	Dried-on blood or bio-debris

### **STAIN TABLE**

Although stainless steel is corrosive resistant, it can still rust and/or stain if it is handled improperly. To determine if a discoloration is rust or just a stain, erase the discoloration with a pencil eraser. If there is pitting in the metal under the discoloration, it is corrosion. If the discoloration is removed, it was just a stain.

# BONUS

#### WORLD PRECISION INSTRUMENTS

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