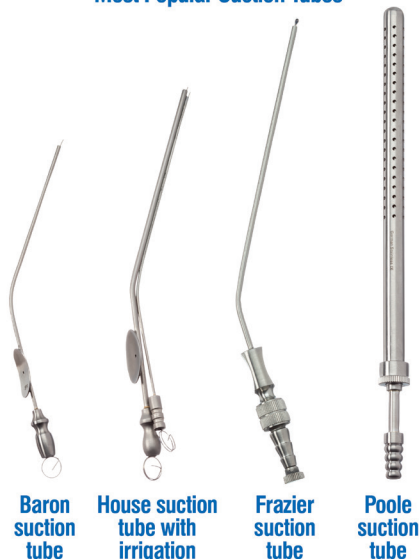




The Ins and Outs of Suction Tubes

SUCTION TUBES ARE USED TO remove fluids to improve visualization of the surgical site. They have a relatively basic and simple design and are available in various lengths, angles and diameters. Some of the most popular patterns of suction tubes include Frazier, Baron, Yankauer, Poole and House.

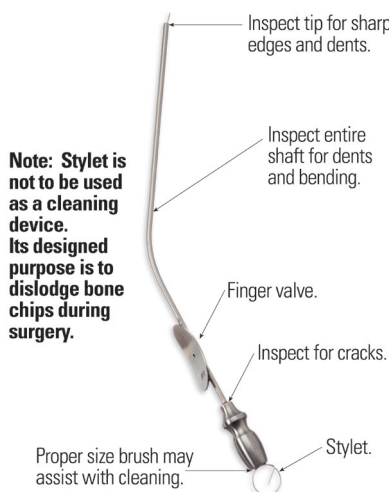
Most Popular Suction Tubes



Although suction tubes are essentially a hollow tube with a stylet and finger valve to control suction, they can pose

significant patient safety risks if they are not inspected and cleaned properly. Inspection of a suction tube, which is conducted in the Central Service/Sterile Processing (CS/SP) department, should begin at the distal tip. Frazier, Baron and House suction tubes must be inspected for sharp edges and dents. Instruments with these issues must be immediately removed from service and sent out for repair. Sharp tips can cause patient injury, while dents can cause suction to be compromised.

Baron Suction Tube



Note: Stylet is not to be used as a cleaning device. Its designed purpose is to dislodge bone chips during surgery.

Yankauer suction tubes must always be disassembled by unscrewing the tip to allow for proper cleaning.

Yankauer Suction Tube



Further knowledge of suction tubes can be gained by understanding and learning the answers to these frequently asked questions:

Q: What does Fr. refer to on a suction tube?

A: Fr. refers to the French scale, also called the French gauge system. It is commonly used to measure the outside diameter of



suction tubes. For example, Baron suction tubes are available in 3, 5 and 7 French.

- 1.00 mm = 3 French = .039 inches
- 1.67 mm = 5 French = .066 inches
- 2.33 mm = 7 French = .092 inches
- 2.67 mm = 8 French = .105 inches
- 3.33 mm = 10 French = .131 inches
- 4.00 mm = 12 French = .157 inches
- 4.67 mm = 14 French = .189 inches

Q: What is the stylet used for on Frazier, Baron and House suction tubes?

A: The stylet is not to be used as a cleaning device. Its designed purpose is to dislodge bone chips and debris during surgery and be present on the sterile field. A properly-sized brush should be used for cleaning.

Q: What is the most important part of a suction tube to inspect?

A: The distal tip. Many times, the tip of the suction tube will become damaged by other instruments, such as a power drill. After every use, it is important to inspect the tip for sharp edges and dents.

Q: Is it acceptable for dents to be present on the suction tube?

A: Yes, if the dents are minor. Small dents that don't affect the flow are considered only cosmetic damage. If the dent is severe, and a cleaning brush is not able to pass through, the instrument must be repaired or replaced.

Q: What is the proper way to clean a Yankauer suction tube?

A: Unscrew and remove the tip for cleaning and inspection. The threads may be cleaned with a nylon brush to remove blood. A lumen brush may assist with the cleaning process. The brush must be the proper diameter and should be longer than the instrument, so it completely exits the distal tip.

Q: What should be used to clean the very small ENT suction tubes?

A: The instructions for use (IFU) for the instrument must be carefully and consistently followed to ensure proper cleaning. A very small cleaning brush may assist in cleaning.

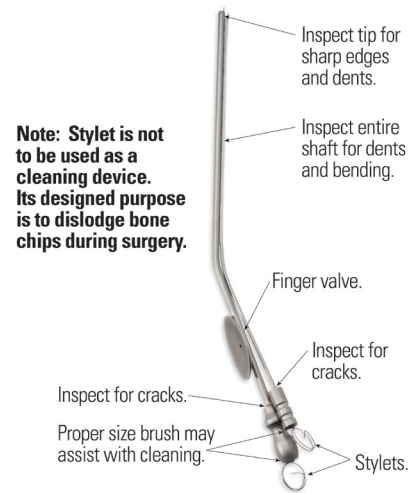
Q: Why do some suction tubes have two channels with stylets?

A: House suction tubes are available with irrigation. The irrigation channel is used to flush the surgical site, while the suction channel removes blood and fluids.

Manual cleaning (brushing) is critical to prevent blood from drying within the suction tube; dried blood within the suction tube could result in a patient infection. The stylet on a Frazier suction tube, for example, is not to be used as a cleaning device. The purpose of a stylet is to dislodge bone chips and obstructions during the surgical procedure. If a stylet is not available or is not freeing the obstruction, orthopedic wire may be used.

Proper cleaning first requires the

House Suction Tube With Irrigation



selection of the correct size brush diameter and overall length. If the brush diameter is too large, it will not clean effectively and may become lodged/stuck in the suction tube. Conversely, if the brush diameter is too small, the bristles will not touch the inside of the lumen, which will result in blood remaining in the instrument. The overall length of the brush must be longer than the instrument, so it completely exits the tip of the lumen (e.g., suction tube). If the brush is not long enough, it will simply push the blood to the middle of the tube.

By understanding proper inspection and cleaning of suction tubes, the patient is safer and surgical outcomes are improved. **C**



RICK SCHULTZ, the Instrument Whisperer™, is an author, inventor and lecturer, and the retired Chief Executive Officer of Spectrum Surgical Instruments Corp. He served as contributing editor of IAHCSMM's Central Service Technical Manual (Fifth, Sixth, Seventh, Eighth Editions). Rick authored the textbooks *Inspecting Surgical Instruments: An Illustrated Guide* and *The World of Surgical Instruments: The Definitive Inspection Textbook*, which was released in June 2018. Schultz was named IAHCSMM's Educator of the Year in 2002, and in 2006, was named American Hospital Association Educator of the Year. In 2007, he was named by Healthcare Purchasing News as one of the 30 Most Influential People in Healthcare Sterile Processing. Schultz currently provides educational lectures to Central Service professionals at IAHCSMM's annual conferences and conducts operating room personnel lectures across the country.