



From Good to Great

Advanced Understanding and Care of Laparoscopic Instruments, Part 2: Test Your Knowledge

BY RICK SCHULTZ

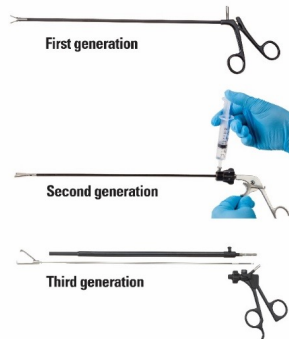
It is critical that Sterile Processing (SP) technicians fully understand the inspection points for laparoscopic instruments. These complex and expensive instruments must be disassembled (third-generation devices only) and properly cleaned. Insulation testing of laparoscopic instruments is also essential, and the repair vendor can play a valuable key role in teaching proper insulation-testing techniques.

Read this article and answer the five-question quiz to test your comprehension of the content and be entered for a chance to win a set of the author's Instrument Coaching Cards™. To submit your answers, see the instructions and QR code at the end of the quiz.



Q: What are the three generations of laparoscopic instruments?

A: First-generation laparoscopic instruments cannot be disassembled and lack a cleaning flush port. Second-generation versions cannot be disassembled but have a cleaning port that can be flushed with a syringe or an ultrasonic irrigation machine. Third-generation laparoscopic instruments can be completely disassembled for cleaning and may or may not have a cleaning port.



Q: What is the difference between single-action and double-action jaws?

A: A single-action jaw has a stationary (non-moving) bottom jaw whereas the double-action design has two moving jaws.



Q: How often should insulation be tested on a laparoscopic instrument?

A: To reduce the likelihood of thermal burning, insulation should be visually inspected and checked with an insulation tester every time the instrument enter the assembly area of Sterile Processing department (SPD).

Q: How should laparoscopic instruments be tested for tears and pinholes?

A: A laparoscopic insulation tester should be used to detect pinholes and tears in the insulation and exposed metal.

Q: How often should laparoscopic instruments be taken apart?

A: If the devices are designed to be disassembled, they should be taken apart after every use.

Q: There is a space between the insulation and the instrument tip. Is this acceptable?

A: No. The instrument must be immediately removed from service and sent out for repair. This gap can allow blood and fluids to enter underneath the insulation (i.e., insufflating the patient's abdomen would force blood under the insulation).



**Q: How should loose laparoscopic insulation be visually tested?**

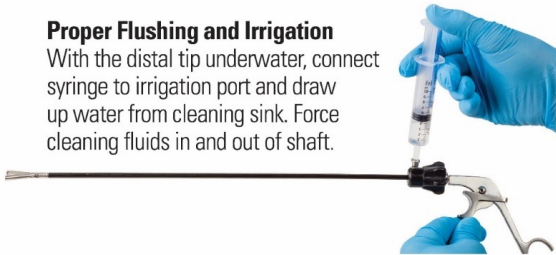
A: Visual inspection should involve carefully examining the entire shaft for any nicks or cuts. Next, lightly pull back on the insulation. If the insulation slides back, the instrument will require re-insulation.

**Q: What is the purpose of the port near the handle?**

A: This port is used to flush the instrument during the cleaning process.

Proper Flushing and Irrigation

With the distal tip underwater, connect syringe to irrigation port and draw up water from cleaning sink. Force cleaning fluids in and out of shaft.

**Q: Where are the most difficult areas to clean on a laparoscopic instrument?**

A: The most challenging areas to clean are the jaws and distal working portion (linkage). This is where blood and fluids can hide. Diligent manual cleaning and the use of an ultrasonic irrigator will help clean these areas.

Q: How are laparoscopic scissors tested for sharpness?

A: Unless stated differently in the instructions for use (IFU), laparoscopic scissors should be tested on one thickness of gift wrap tissue paper or yellow scissor test material.

Q: How is jaw tension tested on laparoscopic graspers?

A: Gently clamp a lint-free towel with the laparoscopic grasper and pull back. The grasper should not slip from the towel.

Q: Which methods can be used to prevent damage to the tips of laparoscopic instruments?


A: Using a tip protector will help protect sharp tips and delicate instruments from damage. Placing instruments in a secure instrument rack and tray is also appropriate.

Quiz

From Good to Great: Knowledge Required for Advance Understanding of Laparoscopic Instruments, Part 2

Please answer the five questions below. Note: T/F indicates a true-or-false question.

1. It is acceptable to have a space between the tip of the laparoscopic instrument and the insulation. T/F
2. The port near the handle of a laparoscopic instrument is used to clean the instrument. T/F
3. Second-generation laparoscopic instruments can be completely disassembled before cleaning. T/F
4. Yellow test material is one way to test laparoscopic scissors for sharpness. T/F
5. Laparoscopic instrument insulation should be checked every time the devices enter the SPD's assembly area. T/F

Scan this QR code to submit your answers online. The deadline to submit is February 5, 2024. All participants' names will be entered into a drawing to win a set of Instrument Coaching Cards™. Good luck! 



RICK SCHULTZ, the Instrument Whisperer™, is an author, inventor, lecturer, and the retired Chief Executive Officer of Spectrum Surgical Instruments Corp. He served as contributing editor of HSPA's *Central Service Technical Manual* (fifth, sixth, seventh and eighth editions). Schultz 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. In October 2021, Schultz published the veterinary medicine textbook *The World of Surgical Instruments for Animal Health*. Schultz was named HSPA's Educator of the Year in 2002 and the American Hospital Association Educator of the Year in 2006. 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 Sterile Processing professionals at HSPA's annual conferences and conducts Operating Room personnel lectures across the country.

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