



Don't Be Fooled by Common Instrument Processing Myths

BY RICK SCHULTZ



Misinformation or “myths” about surgical instruments and instrument processing are widespread across the healthcare industry. Many educators have not updated their knowledge and teaching techniques to stay current with the instrument manufacturer’s knowledge and testing techniques. Thousands of different instruments, outdated processing knowledge and inaccurate education may result in patient safety issues. Knowing the facts is essential. What follows are some of the more common myths that need to be addressed:

Myth #1: It is safe and acceptable to use hemostats as tube clamps for intravenous tubing.

Fact: False. Unlike a tube clamp, hemostats typically have finer jaws than a tube clamp and the box lock of hemostats are not as strong. Because of this, hemostats are highly prone to cracking and, worst-case, releasing/popping off the tube. Hemostats are designed to clamp vessels to control bloodflow, which is achieved by both jaws closing fully. Furthermore, the serrations on a hemostat may damage the actual tubing. Common tube clamps, such as the Presbyterian, come with smooth or serrated jaws to secure tubing. The other most popular tube clamp is the Vorse,

which has a “guard” to support the jaws and box lock when clamping the tube. This pattern is called a Vorse with guard or Vorse Guardian. Using a hemostat to clamp the tube is not safe for the patient.

Myth #2: Metal sterilization pans without holes (solid bottom) are not acceptable to use.

Fact: False. They are acceptable to use with today’s modern sterilizers; however, perforated (with holes) pans/trays allow for maximum steam flow and penetration into the surgical set. A solid pan with a solid lid will not allow steam to reach the instruments.

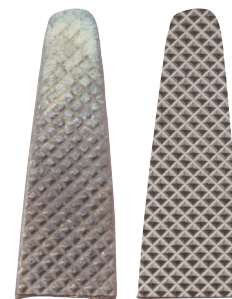
Myth #3: To inspect a needle holder, it is necessary to click it on the first ratchet and hold it up to the light to visualize the center of the jaws.

Fact: This technique is outdated, slow and reduces efficiency when inspecting surgical instruments. Because there are different teeth per square inch, depending on the pattern, the needle holder may be worn, even though light does not show through. This technique, however, is effective for needle holders with smooth jaws, such as the Webster, Halsey and Castroviejo, which have no tread in the jaws. The most recognized and efficient technique for inspecting needle holder jaws is to separate the rings and visually inspect

the box lock for bioburden and the jaws for wear and bioburden.

Myth #4: Clamping aluminum foil is the preferred way to test needle holders for jaw wear.

Fact: Similarly to holding needle holders up to the light, using aluminum foil to test tread wear is a slow, outdated technique. The most effective method is to separate the rings and inspect the jaws for treadwear and bioburden.



Not Acceptable Acceptable

Myth #5: Ultrasonic cleaning causes tungsten carbide inserts to fall out of the needle holder.

Fact: Ultrasonic cleaning will not negatively affect the tungsten carbide insert of a needle holder. Ultrasonic cleaning is a very effective and efficient way to remove hidden blood and debris from the box lock and jaws. The cavitation process is gentle on

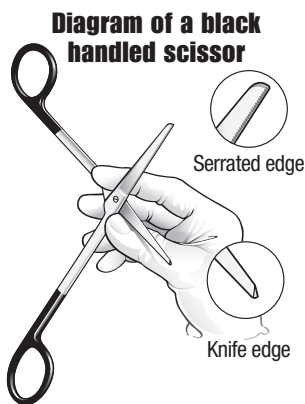


instruments, including micro forceps, and has been documented to clean three times better than manual cleaning. With damaged or cracked jaws or an improper repair (aka jaw replacement), the cavitation of an ultrasonic cleaner may cause the jaws to “pop off”. This happening in the ultrasonic cleaner is much better than in the patient.

Myth #6: There are no left-handed surgical instruments.

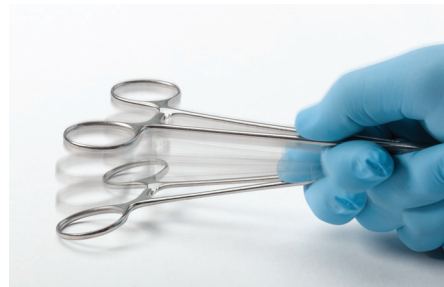
Fact: A small, select group of hemostats and needle holders are designed specifically for left-handed surgeons. The ratchets on left-handed instruments are reversed to allow for opening and closing. Because these instruments are not as common, they typically cost more and require extended delivery times.

As for scissors, black-handled scissors, often called Supercut scissors, can be used either right or left handed; the reason for this is due to the angle of the scissor edge. The scissors have a



“knife edge” on one blade and a flat edge (usually serrated) on the other blade. The knife edge must be tested for sharpness more often than standard scissors because it dulls faster.

Myth #7: Ratchet testing is performed by tapping the instrument in the palm of the hand.



Tap ratchet on hard work surface.

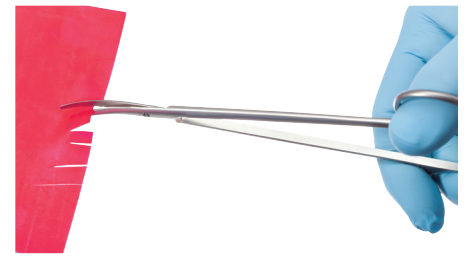
Fact: Tapping the instrument in the palm of the hand is not an accurate method to ensure the ratchets are properly aligned. The hand is not totally flat, and the hand has a soft surface. The purpose of tapping the instrument on a hard work surface is to simulate the instrument hitting another instrument, causing it to pop open. A completely flat surface must be used. When performing this test, click the ratchet only once so it is in the first position. If the ratchet pops open, that indicates the ratchets need to be realigned, and the instrument should be removed from service and sent out for repair. This is a common and inexpensive repair. This technique should be used on

all hemostats, needle holders and any other ratcheted instrument.

Myth #8: When testing rongeurs and scissors for sharpness, the entire jaw or front half of the jaw or blade should be tested.



Test rongeurs with top 1/3 of jaw.



Test scissors with top 1/3 of jaw.

Fact: Rongeurs should cut cleanly through one thickness of an index card or card stock. To perform this test, use the top 1/3 of the jaw only. The instrument should not tear or snag the testing card. The middle and back of the cup jaw are not used during the surgical procedure. When testing the sharpness of a scissor, either red or yellow scissor test material should be used. Scissors with an overall length longer than 4 ½” should cut

Q My repair vendor says we should always focus on sharpening gold-handled scissors because they are the most expensive. Is this a good idea?


A No. Gold-handled scissors stay sharper longer and should always be tested first before sending out for sharpening. Gold-handled scissors have tungsten carbide blade inserts that cannot be replaced when they wear down due to unnecessary or over sharpening. The only option in this situation is to replace the scissor when the tungsten carbide blades are worn down.



cleanly through red scissor test material. Scissors with an overall length of 4 ½" and shorter should cut cleanly through yellow scissor test material. When testing the sharpness of a scissor, only use the distal 1/3 of the blade. It is incorrect to

test the middle or back of the blade. If the testing material snags or is not cut cleanly, the scissors should be tagged and sent out for sharpening.

Although many of these myths, initially, may seem small and

insignificant, they can have a major impact on the performance of the instrument and, more importantly, on the patient. Knowing the facts will improve patient safety. 



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 IAHCMM'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 IAHCMM'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 IAHCMM's annual conferences and conducts operating room personnel lectures across the country.



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