Making the Cut: Scissors 101

The majority of surgical procedures begin using a scissor. For this reason, the first impression for the surgeon is having the correct scissor in the tray – and that it cuts properly. To increase surgeon satisfaction and patient safety, it is important to take a proactive approach to assembly, inspection and testing, and always put sharp scissors in the set.

There are two approaches to instrument maintenance: reactive and proactive. A reactive approach is when the surgeon discovers the dull scissor during the surgical procedure. This discovery results in the surgeon:

1. torqueing the scissor, forcing dull scissor blades to cut, which stresses the screw hinge. This results in cracking.
2. demanding a new scissor be placed in the set.
3. having the scissor removed from the sterile field.

Conversely, a proactive approach involves a plan where Central Service (CS)/Sterile Processing professionals test scissors prior to surgeon/patient contact. The goal is to always have sharp scissors in the surgical set.

**FACT #1**
It is critical that all CS professionals know that all scissors are not the same, and that there are different blades. Accurate tray assembly depends on having the knowledge to understand the difference within each scissor family. A common example is the Mayo scissor group.

In this example, aside from handle colors, these scissors appear the same; however, they are actually very different.

1. **Mayo Standard**: Beveled scissor blades that are stainless steel.
2. **Mayo Noble**: Rounded scissor blades that are stainless steel.
3. **Mayo Super Cut**: One blade is a knife edge and the other blade is serrated to prevent the tissue from slipping. Black-handled (also known as “Super Cut”) scissors require special sharpening techniques and must be sharpened three to four times per year. This scissor has black-colored rings.
4. **Mayo Tungsten Carbide**: These blades have tungsten carbide inserts that cannot be replaced. The carbide blades stay sharper longer; however, careful inspection is required as the carbide is prone to cracking. Tungsten carbide scissors have gold rings for easy identification.
Similarly, Operating scissors and Potts scissors are available in different blade configurations.

Knowing the difference will allow for accurate tray assembly.

**FACT #2**

Every scissor will eventually go dull. It is important to implement a proactive rather than reactive sharpening program. If a scissor is allowed to go dull, the surgeon will have to “torque” the scissor in order to make it cut. This results in cracks in the screw hinge, which are not repairable. The scissor must be removed from service and replaced. A proactive sharpening program will routinely service the scissor, resulting in a more efficient surgical procedure and improved surgeon satisfaction.

In addition, partnering with a knowledgeable and well-trained repair company is important to ensure all scissors are tested and repaired properly. Not all repair technicians are trained on proper sharpening (especially Super Cut) and testing standards when it comes to black-handled (Super Cut) and gold-handled (tungsten carbide) scissors.

**FACT #3**

Hospitals, at times, rely on color coding the instruments instead of learning proper instrument pattern names. There are some advantages to color taping instruments, but it is highly recommended that technicians be required to know the basics of scissors, hemostats, needle holders, tissue/dressing forceps and retractors. The most important aspect of using colored marking tape is proper application. Proper tape application instructions:

1. Clean fingers with alcohol to remove oil, grease and dirt.
2. Wipe tape site with alcohol to remove any lubricant.
3. Tape length should be 1 ¾ times around and applied with firm tension; tape should be cut with scissors.
4. After tape is applied, autoclave instruments (the heat will assist with bonding the tape).
5. Tape the shank of all instruments, but avoid instrument rings.

*Note: Applying the tape 1 ¾ times around will not interfere with the closing of most scissor tips.*

If excessive tape is applied, the scissor will not close all the way to the tip, resulting in a gap at the tip. The scissor will not cut and surgeon dissatisfaction and a slower procedure will occur. These simple facts and knowledge about scissors will result in sharp scissors that cut, not tear the tissue.