



Proper Inspection of Self-Retaining and Hand-held Retractors

RETRACTORS ARE PRIMARILY used to move tissue and organs aside to accurately expose the desired surgical site.

Self-retaining and hand-held retractors are the most popular. Self-retaining retractors come in various sizes (length) and various configurations (number of prongs, sharp prongs or blunt prongs).

Some common self-retaining retractors include:

- Weitlaner retractor
- Gelpi retractor
- Inge Lamina retractor
- Balfour retractor
- Beckman retractor
- Meyerding retractor
- Frazier retractor
- Adson retractor
- Gosset retractor
- Alm retractor
- Heiss retractor
- Jansen retractor

The term self-retaining comes from the design of the instrument. Some self-retaining retractors are “set in place” by closing the ring handles and a ratchet

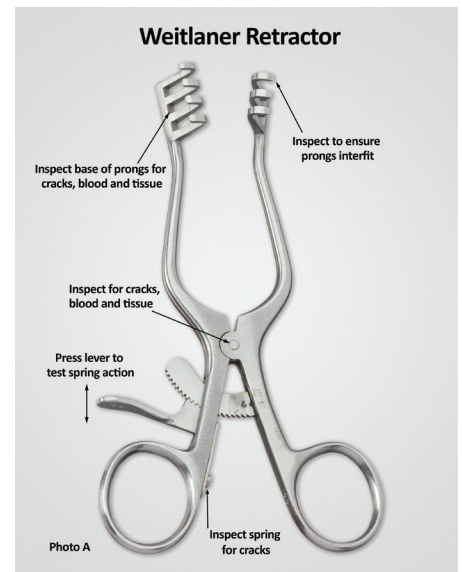
securing the retractor in the “open” position. Another retractor design is the retractor which stays open due to pressure of the incision “locking open” when the retractor feels the pressure of the incision.

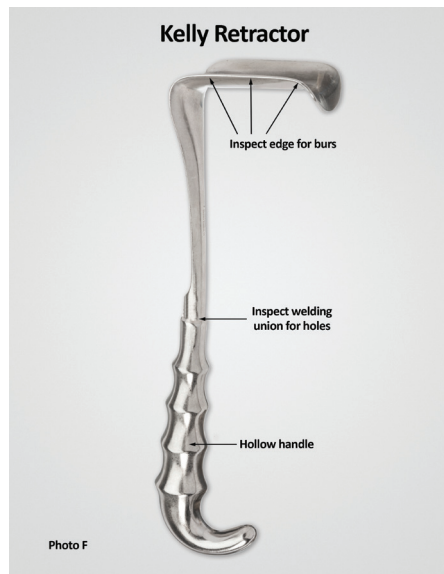
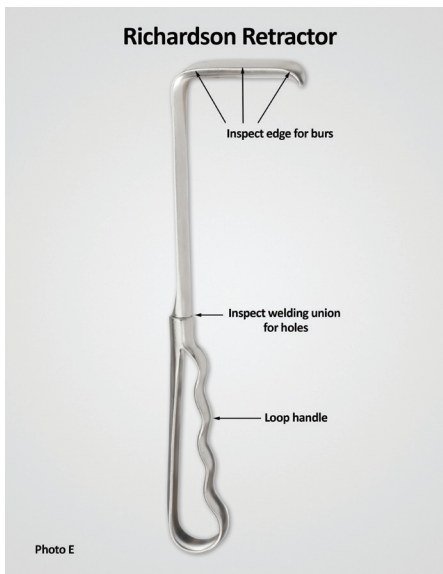
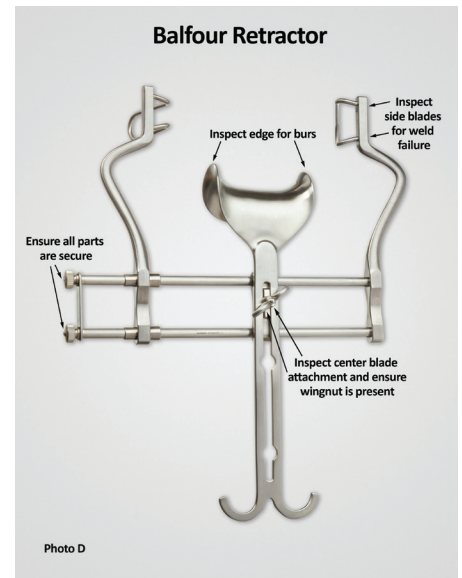
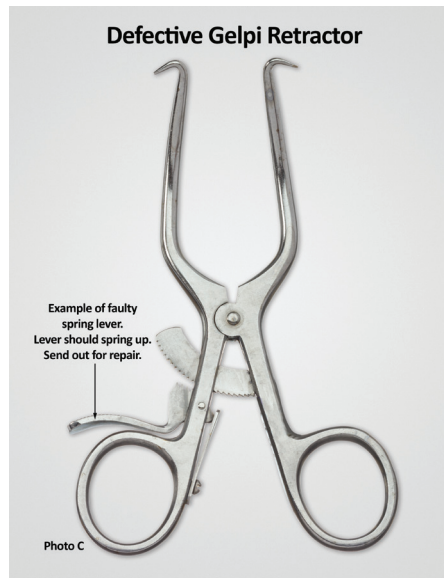
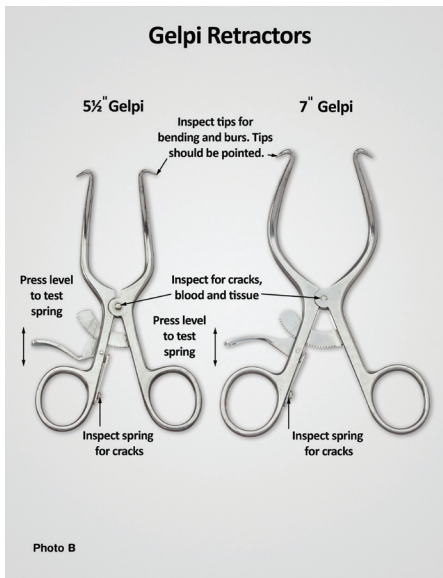
Weitlaner retractor inspection (Photo A): Always inspect for cracks, blood and tissue. *Note: The lever function test must also be performed every time this instrument is received on the clean side of the SPD.* The failure of this test (Photo C) is indicated by the lever being pressed down and sticking in the down position. This occurrence renders the retractor unusable and indicates the retractor should be sent out for repair. It is also important to look to see if the spring is cracked (Photo A). If a crack is discovered, the instrument should be sent out for repair.

Gelpi retractor inspection (Photo B): When inspecting the Gelpi retractor, the first inspection area is the tips of the instrument. Inspect the tips for bending and burrs. The tips should be pointed. The lever inspection is identical to the

Weitlaner retractor.

Balfour retractor inspection (Photo D): Balfour retractor systems consist of various parts (wing nuts, removable side blades and removable center blade), and a technician must verify all parts are present.







Some common hand-held retractors include:

- Richardson retractor
- Kelly retractor
- Volkman retractor
- Crile retractor
- Army-Navy retractor
- Senn retractor
- Desmarres retractor
- Love retractor
- Fomon retractor
- Cottle retractor
- Single Prong retractor
- Meyerding retractor
- Cushing retractor
- Jackson retractor
- Delee retractor
- Deaver retractor
- Richardson-Eastman retractor


Richardson retractor inspection (Photo E):

When inspecting Richardson retractors, the most critical area is the blade. Inspect the edges of the blade for burrs. Next, inspect the area where the handle meets the shaft. Ensure that the connection is secure and that the welding union is intact.

Kelly retractor inspection (Photo F):

The Kelly retractor has the same inspection points as the Richardson retractor. It is important to note that when assembling sets of instruments, the Kelly retractor and the Richardson retractor can be differentiated by the size of the blade. The Kelly blade is wider, while the Richardson blade is more narrow.

Volkman retractor inspection (Photo G):

Inspecting this retractor involves inspecting the tips to ensure there are no missing tips, bends or burrs. Also, it is necessary to inspect the base of the prongs for cracks. 

Q The plastic surgery nurse manager is consistently concerned about the black-handled scissors being dull. What can we do?

A The black handles on a scissor indicate the one blade is a “knife edge” and the other blade can be manufactured either standard (flat) or serrated to secure the tissue and prevent it from slipping. The knife edge scissor, also known as Super Cut, must be sharpened at least four times per year or until complaints subside. The knife edge will dull faster and is more prone to damage when compared to a non-black handled scissor. Following repair of these scissors, it is important to research repair vendors and ensure they are trained and skilled to sharpen a knife edge. Commonly, a repair technician will turn a Super Cut scissor into a standard scissor due to lack of training. When the scissors return from being repaired, inspect the scissor blade to ensure it is properly sharpened.



RICK SCHULTZ is an author, inventor and lecturer, and the retired Chief Executive Officer of Spectrum Surgical Instruments Corp. He served as contributing editor of IAHCSSM’s Central Service Technical Manual (Fifth, Sixth and Seventh Editions) and authored the textbook, *Inspecting Surgical Instruments: An Illustrated Guide*. Schultz was named IAHCSSM’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 serves as chairman of the IAHCSSM Corporate Advisory Committee and provides educational lectures to Central Service professionals at IAHCSSM Annual Conferences and other seminars across the country.