

## Comparison of EZ Surgical A-Lap™ and EndoRetract “Fan” Retractor

Overview:

**The A-Lap™ is the first and only 3-Dimensional, flexible, Hand-like laparoscopic retractor.**

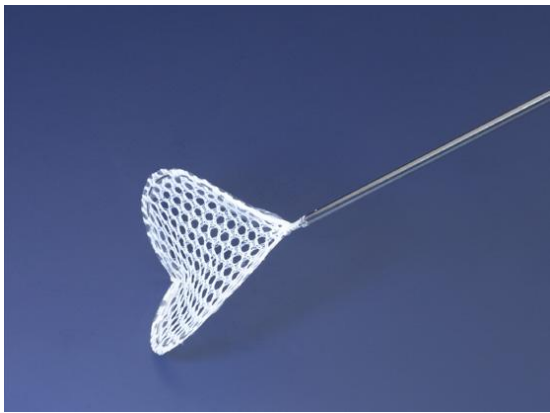

The A-Lap™ features soft and compliant mesh controlled by an intuitive handle design allowing the surgeon to manipulate and lock-in the degree to which the device is opened.

A-Lap™ design enables conveniently “wrapping” and retracting a large volume of tissue, by accepting the natural topography of the organ, thus simplifying soft tissue retraction and preventing ‘slippage’ of tissue during retraction.

**The EndoRetract is a “fan” retractor with multiple rigid metal “fingers”.**

**It has no elasticity and flexibility and no capability of 3-Dimensional expansion and is thus inconvenient to use and may cause damage to soft tissues.**

Detailed comparison table:

	<u>A-Lap™</u>	<u>EndoRetract “Fan” Retractor</u>
		
<b>Materials - Flexibility</b>	<p><b>High flexibility.</b></p> <p><b>Soft and compliant mesh</b>, surrounded by highly flexible and strong metal wires</p>	<p><b>Rigid metal “fingers”</b></p>

	<u>A-Lap™</u>	<u>EndoRetract “Fan” Retractor</u>
<b>3-Dimensional</b>	<b>3 – Dimensional, hand-like grasping and retraction</b>	<b>None. One plane only</b>
<b>“Scoop and Protect” Scooping large volume of tissue</b>	<b>Intuitive to the design, due to 3-D function and soft mesh</b>	<b>Minimal – due to rigid metal design</b>
<b>Structure: Safety</b>	Mesh material: Similar to implantable hernia mesh No small parts. Design is single unit, cannot break within abdomen	Pieces of plastic may tear off into abdomen (as reported on FDA Adverse Events Reports) Tissue may be “caught” between fingers during closure of the device
<b>Maneuverability</b>	26 different stages. Fully compatible with multiple different anatomical shapes and sizes, and with different organs	Angle may be changed
<b>Small Bowel, Urinary Bladder, Uterus</b>	Excellent for retraction of soft organs such as small bowel, urinary bladder and uterus	Limited use - since no capability to “scoop” a large 3-D volume Rigid metal fingers: Small bowel slips on the metal retractor, metal fingers may damage soft organs and cause rupture
<b>Surface area</b>	Large surface area of retraction	Surface area spread over “fan” area
<b>Retraction pressure spread</b>	Retraction pressure spread on large surface area, with soft mesh	Rigid metal contact with tissues