

CLINICAL SPOTLIGHT

Mediflex® Liver Retraction Solutions for Robotic-Assisted Minimally Invasive Esophagectomy (RAMIE)

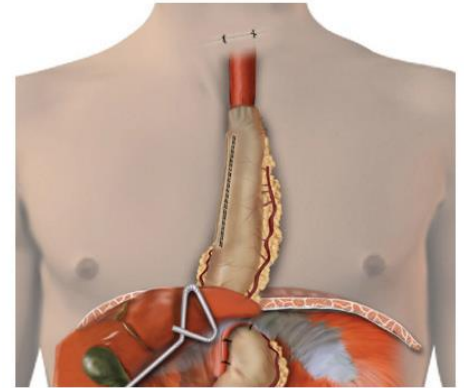
Procedure Overview

Esophagectomy is performed by cardiothoracic and general surgeons (usually in tandem) to remove a diseased esophagus and reconstruct the gastrointestinal tract. View procedure overview [HERE](#) and animation [HERE](#).

Surgical Approaches

Esophagectomy is a multi-stage complex surgical procedure which can be accomplished with a combination of approaches including: open, minimally invasive, robotic-assisted, laparoscopically and thoracoscopically. Depending upon the location of the anastomosis (reconnection between the stomach and remaining esophagus), two common procedures described in current literature include:

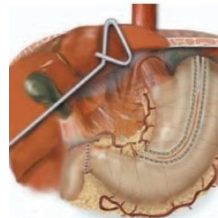
- Ivor Lewis or Robotic-Assisted Ivor Lewis (RAIL): esophagogastric anastomosis is located at the intrathoracic (upper chest) level
- McKeown or Three-Incision (or Three-Field) Esophagectomy: esophagogastric anastomosis is located in the neck



Watch a series of clinical videos on a robotic-assisted esophageal procedure [HERE](#)

Mediflex® Liver Retraction Options for RAMIE (*See catalog HSRD-0720 for more product options)

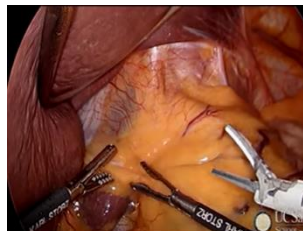
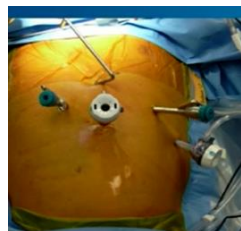
FlexArm™ Plus System (99054-QCLR) - Quick-Grip Tip (72163) or Stainless Steel Tip (69706) – Lapro-Flex® Retractor (91683-A*)



Key benefits...

- FlexArm™ allows for low-profile positioning to avoid robotic arm interference
- Lapro-Flex® provides dynamic retraction

FlexArm™ Plus System (99054-QCLR) with Robotic Nathanson Retractor (69736-R9*)



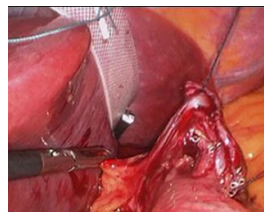
Key benefits...

- Nathanson Liver Retractor provides static retraction
- Robotic Nathanson Retractor eliminates robotic arm interference

Versa Lifter Band – Port-Free Internal Retractor (VBN10A05*)



[Watch clinical video](#)



Key benefits...

- Simple to use
- Sterile, disposable, ready to use
- No port required
- Two needle lengths: 5cm, 6.5cm

(*See catalog HSRD-0720 for more product options)

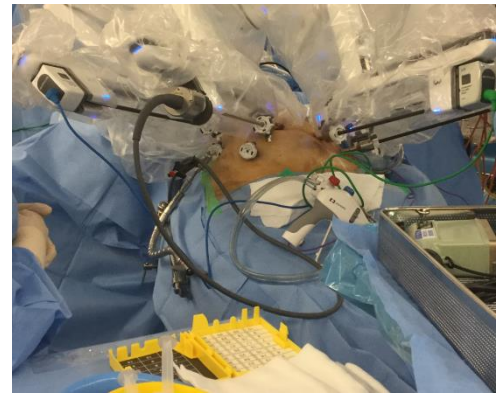
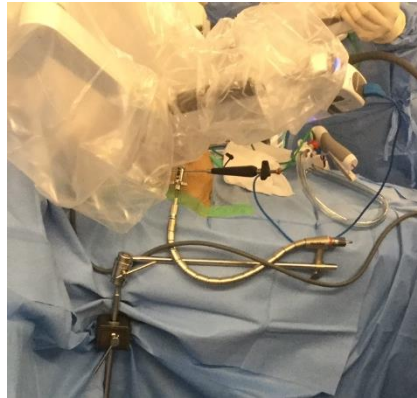
If the esophagectomy is performed with a traditional laparoscopic approach, you can introduce Mediflex's Articulating Esophageal Finger-Style Retractor.



Articulating Esophageal Finger-Style Retractor (91680)

- Reusable, durable, cost-effective
- Articulating technology used for dissection and retraction in laparoscopic procedures
- Easy activation using actuating knob for tip manipulation
- Atraumatic tip and shaft
- 90 degree articulation, 38cm shaft length

Surgical Set-up | FlexArm™ Holding System with Lapro-Flex® Retractor (before robot placement & after)



Clinical literature Citing Mediflex®

Several published clinical studies on esophagectomy include the use of a Mediflex holding/stabilization system with either an articulating retractor (ie Lapro-Flex®) or Nathanson Hook for liver retraction. Papers with specific reference to using Mediflex® devices can be found below (see highlighted section on each), full publications available [HERE](#)

Combined thoracoscopic and laparoscopic robotic-assisted minimally invasive esophagectomy using a four-arm platform

Memorial Sloan-Kettering Cancer Center, New York, NY

'An additional right-lateral, subcostal 5-mm port, for placement of the liver retractor (MediFlex retractor)'

Robotic Ivor Lewis esophagectomy: evolving technique to optimize outcomes

New York University Langone Health, New York, NY

'The liver retractor is positioned via a right subcostal port—we prefer the Mediflex (Islandia, NY, USA) Positractor with a Lapro-Flex® self-forming retractor.'

Fully robotic da Vinci Ivor-Lewis esophagectomy in four-arm technique-problems and solutions

University Medical center Schleswig-Holstein (UKSH), Kiel, Germany

'An additional 5 mm port (LR) for the placement of the liver retractor (Lapro-Flex® Triangular Retractor 5 mm, Mediflex Surgical Products, Islandia, NY, USA).'

Technique of robotic assisted minimally invasive esophagectomy (RAMIE)

University of Pittsburgh School of Medicine & Medical Center, Pittsburgh, PA

'The patient is placed in the supine position and shifted to the right side of the bed to facilitate use of the liver retractor and stabilization system (MediFlex, USA).'

Ivor Lewis robotic assisted minimally invasive esophagectomy: different approaches

University of Pittsburgh School of Medicine & Medical Center, Pittsburgh, PA

'The patient is positioned to the right side of the operating room table to facilitate placement of the liver retractor and stabilization system (Mediflex, USA).'

Minimally Invasive Esophagectomy for Caustic Esophageal Stricture in Children

Children's Hospital of Pittsburgh, University of Pittsburgh PA

'The left lobe of the liver is retracted upward to expose the esophageal hiatus using a diamond flex retractor (Genzyme, Tucker, GA) and held in place with a self-retaining system (Mediflex).'