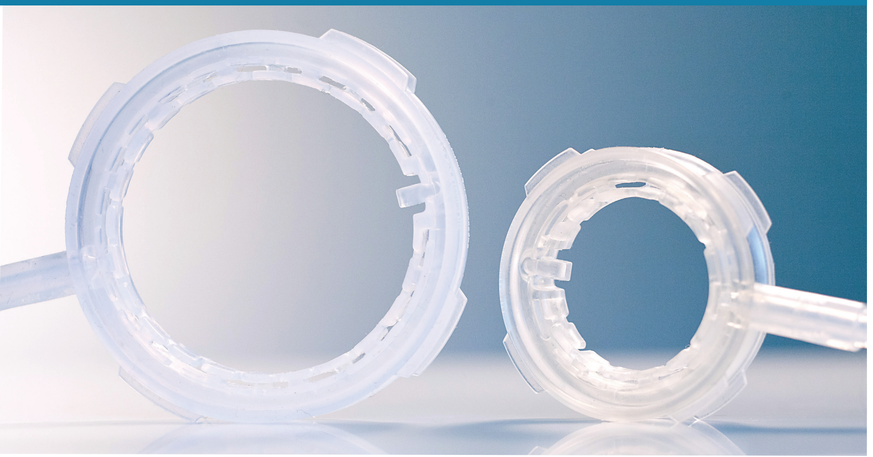
Improve Patient Experience with the LiVac Retractor

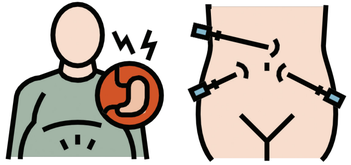


THE LIVAC RETRACTOR GENTLY LIFTS SOLID ORGANS USING SUCTION

- Available in two sizes OD 56mm and 78mm
- Global regulatory approvals
- Clinically validated

The LiVac Retractor System is suitable for:

- Bariatric surgery
- Robotic Bariatric surgery
- Revisional Bariatric surgery
- Revisional Robotic Bariatric surgery
- MIS & Robotic gall bladder surgery
- MIS & Robotic Splenectomy



SATISFIED PATIENTS SIMPLER SURGERIES REDUCED COST OF CARE

LiVac at a Glance

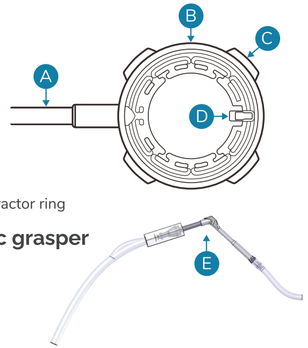
A. Silicone Suction Tubing
Joins to sterile suction hose via LiVac connector to deliver regulated suction; soft, malleable for flexibility in positioning

B. LiVac Ring
Provides seal between Liver and Diaphragm, retracts liver or spleen from above, reduces trauma

C. Outer Handling Tabs
Used to position device intraoperatively, reduces risk of damage to retractor ring

D. Slot for attachment of inserter or laparoscopic grasper
Allows easy insertion with minimal risk of tearing device

E. LiVac Connector
Connects silicone tubing to suction to provide regulated suction

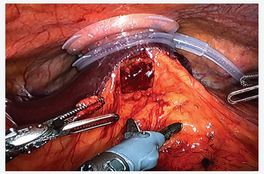


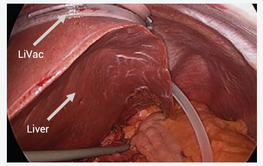
How LiVac Works

The LiVac Retractor is suited to laparoscopic, minimally invasive, and robotic procedures.

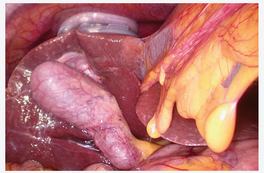
- Lifts solid organs such as the liver or spleen using suction from above
- Suction creates a vacuum with LiVac adhering the organ to the diaphragm
- LiVac is inserted using an existing port incision
- Silicone ring is positioned between the liver and diaphragm
- Tubing exits the patient via the port incision
- Tubing connects to suction

LiVac®
Gentle Organ Retraction


LiVac in situ in revisional robotic case



LiVac left liver lobe retraction


LiVac right liver lobe retraction

Reduce Harm with the LiVac Retractor

Clinical Evidence Demonstrates

- ✓ Improves patient outcomes
- ✓ Reduces procedure time
- ✓ Reduces post op pain and pain medication
- ✓ Reduces patient length of stay
- ✓ One less scar

> "Does not clash with the robot arms – this is a game change and the **best retractor on the market for robotic surgery.**"
>
> US Surgeon

RESEARCH ARTICLE JSLS

Fewer Ports Cut Opioid Use and Length of Stay in Elective Laparoscopic Cholecystectomy

Terry Chiung Ta Lu, BMBS, Philip Gan, MD, Vincent Versace, PhD

A comparison of the number of ports and total cross-sectional area against procedure time, length of stay and opioid analgesia required – a retrospective analysis.

Elective Laparoscopic Cholecystectomies 144
Aged 18+ | ASA score 1-2

Group A	Group B	Group C
46	56	42
3-port approach	4-port approach	4-port approach
12/5/5	12/5/5/5	12/10/5/5
277.25mm²	327.52mm²	453.96mm²*
LiVac®		

	Group A	Group B	Group C
Procedure Time (mins)	58.3	82.4	98.7
Length of Stay (days)	0.8	1.1	1.2
Total oMEDD** (mg)	31.6	52.6	62.3

* Total cross-sectional area of the laparoscopic ports, based on outer diameter
** Oral Morphine Equivalent Daily Dose

Satisfied Patients
- No scar
- Reduced/no trauma
- Reduced post op pain
- Reduced pain medication

Simpler Surgeries
- Short learning curve
- Reduces surgery time
- Simplifies robotic procedures
- Does not clash with robot arm
- Supports all surgery techniques

Reduce Hospital Costs
- Improves patient outcomes
- Reduces procedure time
- Reduces overall procedure cost
- Reduces patient length of stay