

Fascial Closure

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Laparotomy Incision Closure

Optimal Technique ¹⁻³

- Continuous/Running Suture
- **Small Bites** (5-7 mm Every 5-7 mm)
- Slowly Absorbable Monofilament Suture (PDS)
- Goal Suture:Wound Length: **4:1**

Additional Considerations

- Triclosan-Coated Suture (Stratafix Symmetric, PDS Plus) May Decrease the Rates of Surgical Site Infections ^{4,5}
- Barbed Suture (Stratafix, V-Loc) May Decrease the Risk of Evisceration ⁵⁻⁷

Prophylactic Mesh Placement ^{2,8,9}

- Decreases Risk of Hernia
- Onlay or Retro-Muscular Plane is Preferred
- Complications:
 - Increased Risk of Seroma
 - No Increased Risk of Infection
- *Use is Debated and Not Clearly Defined

Abdominal Binders ¹⁰⁻¹²

- No Evidence to Show Decreased Risk of Incisional Hernia or Burst Abdomen
- May Decrease Postoperative Pain

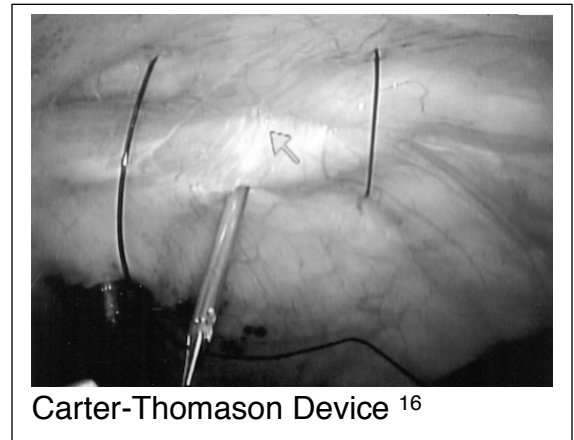
Port-Site Closure

Indications to Close the Fascial Defect ^{2,13}

- Trocar Sites ≥ 10 mm
- Any Size After Single-Incision Laparoscopic Surgery (SILS)
- Any Size at the Umbilical Site

Technique for Port-Site Closure

- Over 20+ Techniques Have Been Described ^{14,15}
- Three General Groups of Closure Techniques:
 - Intracorporeal Assistance (Require 2 Additional Ports – One to Visualize and One to Manipulate)
 - Ex: Maciol Needles, Grice Needles, and Endoclose Suture Device
 - Extracorporeal Assistance (Require 1 Additional Port – One to Visualize)
 - Ex: Carter-Thomason CloseSure System, Endo-Judge Wound Closure Device, and Tahoe Surgical Instrument Ligature Device
 - External Closure (No Additional Ports Required)
 - Ex: Suture Carrier, Dual-Hemostat Technique, and Standard Hand Suture Closure



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