CICAT & EndoTORCH

Mini Less Open Sublay Technique
DynaMesh®-CICAT

For repair of abdominal wall hernia and umbilical hernia with extraperitoneal mesh position in MILOS technique

Allow for sufficient overlap when selecting mesh size.

### Product
- **DynaMesh®-CICAT**
  - Size: d 10 cm round
    - PV090010F3 Unit = 3 EA / BX
  - Size: 15 cm x 15 cm
    - PV091515F3 Unit = 3 EA / BX

### Longitudinal
- **DynaMesh®-CICAT**
  - Size: 15 cm x 25 cm
    - PV091525F2 Unit = 2 EA / BX
    - PV091525F5 Unit = 5 EA / BX
  - Size: 15 cm x 30 cm
    - PV091530F2 Unit = 2 EA / BX
  - Size: 18 cm x 40 cm
    - PV091840F2 Unit = 2 EA / BX
  - Size: 20 cm x 30 cm
    - PV092030F2 Unit = 2 EA / BX
    - PV092030F5 Unit = 5 EA / BX
  - Size: 30 cm x 45 cm
    - PV093045F1 Unit = 1 EA / BX
    - PV093045F3 Unit = 3 EA / BX
  - Size: 45 cm x 60 cm
    - PV094560F1 Unit = 1 EA / BX

### Transversal
- **DynaMesh®-CICAT**
  - Size: 40 cm x 20 cm
    - PV094020F1 Unit = 1 EA / BX

### Visible
- **DynaMesh®-CICAT visible**
  - Size: 20 cm x 30 cm
    - PV162030F1 Unit = 1 EA / BX

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**Use and properties**

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<th>Product</th>
<th>Field of application</th>
<th>Surgical approach</th>
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<th>Mesh position</th>
<th>Fixation</th>
<th>Optimal handling</th>
<th>Optimal patient safety</th>
<th>Optimal patient comfort</th>
<th>Green line marker</th>
<th>Tri-elasticity</th>
<th>Visible technology</th>
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<td>DynaMesh®-CICAT</td>
<td>abdominal wall</td>
<td>open / mini-open</td>
<td>MILOS</td>
<td>extraperitoneal (sublay/onlay/inlay)</td>
<td>suture / bonding</td>
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Optimally adapted tri-elasticity

Because of its tri-elasticity, which is adapted to the anatomical and biomechanical properties (dynamometry) of the human abdominal wall, DynaMesh®-CICAT provides the highest possible degree of patient comfort.

Optimal incorporation of the mesh

Following in-vivo incorporation, mesh implants have a tendency to "shrinkage".

DynaMesh®-CICAT has a high effective porosity of 61 %, enabling excellent incorporation of the mesh implant. Moreover, in the course of incorporation the use of the proven and highly biocompatible polymer PVDF contributes to a low degree of scarring.

The optimal incorporation of the DynaMesh®-CICAT implant post-operatively reduces the risk of shrinkage and recurrence.

Optimal handling

- The special anti-slip surface of the DynaMesh®-CICAT ensures the mesh stays in position and enables optimal handling.
- DynaMesh®-CICAT is marked with green lines, which indicate the required orientation (cranio-caudal)
- The **light tube** for the MILOS technique (Mini Less Open Sublay technique) was developed with Mr Wolfgang Reinpold, consultant at the Wilhelmsburger Groß-Sand Hospital, Hamburg, specially for laparoscopic-assisted treatment of abdominal wall hernias.

### Technical data

<table>
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<tr>
<th>Polymer (monofilament)</th>
<th>Excellent biocompatibility</th>
<th>Minimal foreign body reaction</th>
<th>Reduced bacterial adherence</th>
<th>Optimal dynamometry</th>
<th>No scar plate formation</th>
<th>Reactive surface area ( \frac{\text{m}^2}{\text{m}^2} )</th>
<th>Elasticity ( % ) at 16 N/cm</th>
<th>Tear propagation resistance ( \frac{\text{N}}{\text{cm}} )</th>
<th>Textile porosity ( % )</th>
<th>Effective porosity ( % )</th>
<th>Effective porosity at 2.5 N/cm ( % )</th>
<th>Classification ( \text{N} )</th>
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<tbody>
<tr>
<td>PVDF</td>
<td>p.10</td>
<td>p.10</td>
<td>p.10</td>
<td>p.11</td>
<td>p.13</td>
<td>2.14</td>
<td>46</td>
<td>57</td>
<td>28</td>
<td>66</td>
<td>61</td>
<td>57</td>
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Recommended light transmission cable:
**Fibre optic set**, Ø 5.0 mm, 2300 mm long, comprising:
Fibre optic cable (80665023), projector adapter (8095.07) and
endoscope adapter (809509).................................806650231
(for maximum light transmission)

<table>
<thead>
<tr>
<th>Instrument channel</th>
<th>Ø</th>
<th>GL / TL</th>
<th>Type</th>
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<tr>
<td>Light tube for MILOS technique</td>
<td>5 mm</td>
<td>10 mm</td>
<td>200 mm</td>
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</table>
1. Skin incision 2 to max. 5 cm via hernial orifice (Fig. A).
2. Display of hernial defect and preparation of the hernia sac.
3. Optional: minimal opening of the hernia sac allowing for manual probing, followed by open or laparoscopic adhesiolysis.
4. The peritoneum is freed up approx. 2 cm from the linea alba in a circular pattern and the posterior layer of the rectus muscle is freed.
5. The posterior layer of the rectus muscle is opened laterally on both sides (instrument: EndoTORCH) (Fig. B) about 1 cm from the medial border of the rectus muscle (Fig. C).
6. Using long slim retractors and under endoscopic monitoring, the posterior layer of the rectus sheath is freed laparoscopically from the rectus muscle. In the midline endoscopically assisted dissection is performed in the preperitoneal plane: The peritoneum is freed up from the linea alba.
7. The further totally extraperitoneal preparation is performed through the hernia, either under direct vision with laparoscopic instruments or with endoscopic assistance.
8. The posterior layer of the rectus sheath generally remains open with a completely closed midline peritoneum.
9. Placement and spreading of the DynaMesh®-CICAT mesh implant in the extraperitoneal cavity as a double roll and without skin contact.
10. Closure of the hernia defect over the mesh implant under minimal tension (Fig. D).
11. Fixation of the DynaMesh®-CICAT mesh implant is only required if the hernia defect cannot be completely closed and there is bridging of the hernia defect.

The MILOS technique to repair abdominal wall and umbilical hernias with DynaMesh®-CICAT and EndoTORCH

Animation and video of entire procedure online at:
http://de.dyna-mesh.com/v/video/?file=VI002de0101__REV_2015-03-01_00