CARDIAC SURGERY:

- Ministernotomy
- CABG by-pass
- CABG and valvular replacement and reconstruction

THORACIC APPLICATIONS:

- VATS Video-Assisted-Thoracoscopy-Surgery
- Lobectomy
- Wedge Resection

KARDIA SPIRAL®

NEW SOLUTION FOR CARDIO-THORACIC DRAINAGE.

Works in every positioning through patented spiral design.

Improves drainage flow with no risk of clotting.

Ideal for Mini-Sternotomy Cardiac procedures.

Suggested in VAT Video-Assisted-Thoracoscopy use.

Reduces pain and trauma for patient allowing early mobilization.

CONNECTORS & ADAPTERS

<table>
<thead>
<tr>
<th>Description</th>
<th>Size</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straight Connector for Kardia Spiral</td>
<td>6 mm</td>
<td>25019</td>
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<tr>
<td>Y-piece 3/8&quot; Connector for Kardia Spiral</td>
<td>6 mm</td>
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<tr>
<td>Y-piece 1/4&quot; Connector for Kardia Spiral</td>
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PACKAGING: 10 PIECES PER BOX

KARDIA SPIRAL

6 mm - CH 19
8 mm - CH 24

PACKAGING: 10 PIECES PER BOX

CodeDescription Size

68 mm - CH 19
68 mm - CH 24

Packaging: 10 Pieces per Box

Clinical support:

- A. Terzi, F. Calabrò - The use of flexible spiral drains after non-cardiac thoracic surgery
- R. A. Lancey - The use of smaller, more flexible chest drains following open heart surgery
- J. A. Odwy - A method for mediastinal drainage after cardiac procedures using small silastic drains

Photography by:

- University Hospital of Verona, Thoracic Department (Prof. F. Calabrò)
- S. Croce e Carle Hospital of Lecce, Thoracic Department (Dr. A. Terzi)
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WHY KARDIA SPIRAL?
- Maintains capillary effect in any situation.
- Works in every position.
- Allows a continuous and effective drainage avoiding tissue trauma.
- Increases patient’s comfort through atraumatic profile.

FEATURES AND BENEFITS
- Drains also when subject to tractions or unusual positioning.
- Spiral design offers alternative drainage routes to eliminate blocking from blood clots.
- Four narrow helical ducts enhance drainage flow as much as ten times the standard fluted performance (see comparative table).
- Higher efficiency allowing use of a smaller size than a standard fenestrated drain.

SPIRAL DRAIN VS. STRAIGHT FLUTED DRAIN:
Possibility of occlusion and kinking when a standard drain is positioned in curved placement or subject to traction (see drawing 1). Using Spiral profile avoids risk of collapsing, allowing a continuous drainage effect (see drawing 2 & 3).

KARDIA SPIRAL:
Ideal for Cardiac and Minimally Invasive Surgery.

HIGH DRAINAGE PERFORMANCE
- Permits lower size 19/24 CH compared to 28/36 CH conventional chest catheters.
- Spiral design provides greater drainage surface than regular perforated drains.
- Smaller and softer drain reduces tissue trauma and pain for patient.
- Helical ducts maintains multiple drainage routes avoiding risk of total occlusion.
- Less patient discomfort upon removal allowing early mobilization.

<table>
<thead>
<tr>
<th>Kardia Spiral</th>
<th>Standard Drain</th>
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<tbody>
<tr>
<td>Draining Surface (mm²)</td>
<td>Draining Surface (mm²)</td>
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<tr>
<td>CH 19</td>
<td>1612</td>
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<tr>
<td>CH 24</td>
<td>2280</td>
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