Ethicon Circular stapling portfolio

Designed to deliver optimal compression for a secure anastomosis
Circular anastomosis

Clinical challenges

Needed: An optimized stapling solution that reduces leaks without compromising perfusion.

Tissue tension, poor blood supply and variable tissue thickness can compromise the anastomosis and lead to significant complications. Among complications, anastomotic leaks are a dominant surgical concern due to their high mortality risk.

Postoperative anastomotic leaks occur in up to 12% of colorectal surgeries with mortality reported between 12% and 27%.1

Economic value

The impact of postoperative anastomotic leaks on healthcare costs and patient lives can be significant:

Patients who had postoperative anastomotic leaks incurred an additional hospital cost of $24,129.5

The cause of anastomotic leaks is multi-factorial, including both patient and surgical factors. With two proprietary technologies, the ECHELON CIRCULAR™ Powered Stapler addresses device-to-tissue interaction and device-to-user interaction to reduce leaks at the staple line without compromising perfusion.6

Anastomotic leak rates

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Leak Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gastrectomies</td>
<td>Up to 4%</td>
</tr>
<tr>
<td>Esophagectomies</td>
<td>Up to 11%</td>
</tr>
<tr>
<td>Colorectal Resections</td>
<td>Up to 12%</td>
</tr>
</tbody>
</table>

6 Benchtop testing in porcine tissue ≤ 30mmHg (26mmHg average pressure experienced during intra-operative leak test), comparing Ethicon CDH29P to Medtronic EEA2835 (p<0.005).
ECHELON CIRCULAR™ Powered Stapler

Designed to reduce leaks without compromising perfusion—resulting in 61% fewer leaks at the staple line.1

Combining technologies to reduce leaks

3D Stapling Technology
- Designed with offset closure of the staple legs, 3D Stapling Technology evenly distributes compression throughout the anastomosis.1
- Reduces potential leak paths.1

Gripping Surface Technology
- Atraumatic Gripping Surface Technology gives precise compression only where it is needed2 to prepare the tissue for staple formation.
- Provides gentler handling with a 33% reduction in compressive forces on tissue.2

Powered firing platform
- Delivers 37% less movement at the distal tip for increased stability.3
- Reduces force to fire by 97% with push button firing.4
- Is designed to help minimize variation in usage and standardize performance across users.

Claims compared to Medtronic DST Series™ EEA™ Stapler

1 Staple line analysis in benchtop testing, comparing Ethicon CDH25P to Medtronic EEA2535. 2 Benchtop testing on porcine colon, comparing Ethicon CDH25P to Medtronic EEA2835, p=0.001. 3 Users firing in a porcine model, comparing Ethicon CDH29P to Medtronic EEA2835, p=0.003. 4 Benchtop testing, comparing Ethicon CDH29P to Medtronic EEA2835, p=0.001.
Ethicon portfolio of circular staplers
Controlled tissue compression promotes conditions for healing

**ECHELON CIRCULAR™ Powered Stapler and Ethicon Circular Staplers with controlled tissue compression and Adjustable Height Staple Technology** are designed to deliver optimal compression for a secure anastomosis.

- Controlled closure knob with dual-stage closing mechanism for quick closure while maintaining fine adjustment of the tissue gap
- Continuously smooth anvil shaft creates less excess tissue draw during anvil closure\(^1\,^2\)
- Fixed anvil design causes less tension on the anastomosis with less strain on the staple line during opening\(^3\,^4\)

Claims compared to Medtronic DST Series™ EEA™ Stapler

1 Benchtop testing on porcine jejunum, comparing mean tissue draw during anvil closing of the Ethicon CDH25P and Medtronic EEA2535. 0.01cm vs 1.762cm, p=0.001. 2 Benchtop testing on porcine jejunum. Comparing mean tissue draw during anvil closing of the Ethicon Circular Stapler (CDH25A) and the DST Series EEA circular stapler (EEA2535). 0.437cm vs 1.708cm, p<0.05. 3 Benchtop testing on porcine jejunum, comparing mean tissue stretch during anvil opening after firing of the Ethicon CDH25P and the Medtronic EEA2535 1.148cm vs 1.832cm, p=0.012. 4 Benchtop testing on porcine jejunum. Comparing mean tissue stretch during anvil opening after firing of the Ethicon Circular Stapler (CDH25A) and the DST Series EEA circular stapler (EEA2535) 1.558cm vs 2.228cm, p<0.05. 5 Benchtop testing comparing average vibration measured as mean vectorial acceleration during firing. CDH 16.58 m/s\(^2\) vs. EEA 3.20 m/s\(^2\). 6 Benchtop testing comparing mean peak sound intensity during firing. CDH 109.80 dB(linear) vs. EEA 95.27 dB(linear).

Ethicon Circular Staplers

**More device feedback when firing**

Breakaway washer provides 5x more tactile feedback\(^5\) and 16x more audible feedback\(^6\)

**Available in an endoscopically sealed version**

Shaft designed for endoscopic use with longer shaft length, low-reflective finish and sealed to maintain pneumoperitoneum

**Applicable procedures**

Designed for creating anastomosis in bariatric, colorectal and general procedures
Ethicon Circular Staplers are available in multiple sizes to allow proper matching of the device to the diameter of the lumen.

**ECHELON CIRCULAR™ Powered Stapler**

<table>
<thead>
<tr>
<th>Code</th>
<th>Head diameter</th>
<th>Cartridge type</th>
<th>Staple technology</th>
<th># of staples</th>
<th>Open staple leg length</th>
<th>Closed staple height</th>
<th>Quantity per sales unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDH23P</td>
<td>23mm</td>
<td>GST</td>
<td>3D</td>
<td>20</td>
<td>5.2mm</td>
<td>15-22mm</td>
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**Endoscopic Curved Intraluminal Stapler**

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<th>Compressed tissue thickness*</th>
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<tbody>
<tr>
<td>ECS21A</td>
<td>21mm</td>
<td>Flat deck</td>
<td>B-form</td>
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<tr>
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* 10mm compressed tissue thickness provides 15mm closed staple height

**How to order**

All purchase orders are made to Johnson & Johnson Health Care Systems, Inc. (JJHCS) or your authorized distributor.

**Electronic ordering options**
(Note: Placing orders electronically avoids minimum order fees for your hospital)

**Johnson & Johnson Gateway:** [www.jnjgateway.com/commerce](http://www.jnjgateway.com/commerce)

For questions about your order, visit the website or call 1-866-JNJ-GATE (566-4283).


For questions about your order, visit the website or call 1-800-YOUR-GHX (968-7449).

**Electronic Data Interchange (EDI): JJHCS EDI Help Line: 1-800-262-2888**

Nonelectronic/manual ordering options
Call JJHCS at 1-800-255-2500 between 8:30 a.m. and 9 p.m. Eastern Standard Time or fax your order to 1-732-562-2212.

**Customer support**

For product use assistance, clinical guidelines, service and repair, emergency assistance, copy of a 510(k) clearance letter or complaints, please contact our Customer Support Center at customersupport@eesus.jnj.com or by calling 1-877-ETHICON (384-4266). Our Support Center is staffed 24 hours a day, 7 days a week by qualified nurses to answer your product-related questions.