Advancing staple line security, even in challenging conditions

There's a lot riding on your staple line. The new ECHELON™+ Stapler with GST Reloads advances security to deliver fewer leaks at the staple line and better staple formation, even in challenging conditions.¹ ²

¹ Benchtop testing in porcine tissue 60mHg (Double the 25mHg average pressure experienced during intra-operative leak test), comparing Ethicon ECHELON+ Stapler PS6660A with GST Reloads GST60B to Medtronic Signia® Stapler with Tri-Staple® Reloads EGG60AMT and Ethicon Endo-GIA™ with Tri-Staple® Reloads EGG60AMT. Cumulative number of leaked tests (14±30, 23±30, 25±30) respectively, n=30 p < 0.05 (95%CI 200.38). ² Benchtop testing in 3.5mm and 4.0mm porcine tissue comparing malformed staples between ECHELON+ Stapler with GST Reloads (GST60G, GST60T) to Medtronic Signia® Stapler with Tri-Staple® Reloads (EGG60AMT, EGG60AXT) and Endo GIA™ with Tri-Staple® Reloads (EGG60AMT, EGG60AXT). Percentage malformed results 1H:2% vs 4.2%, p < 0.05 (95%CI 200.38)
Built to meet the demands of challenging tissue

When stapling, especially in challenging tissue, gentle tissue handling and proper compression are fundamental to ensuring good staple line integrity and helping reduce complications like leaks and bleeds. The new ECHELON™+ Stapler with GST Reloads advances staple line security—even in challenging conditions—for a better way to staple.

New
ECHELON™+ Anvil
Designed for more consistent compression and to better capture and form staples

New
Dynamic Firing
Slows as it engages thick tissue to enhance compression and audible feedback

Superior tissue management and control compared to Medtronic powered and manual staplers with Tri-Staple™ Reloads:

1 Benchtop testing in porcine tissue ≤30mmHg (26mmHg average pressure experienced during intra-operative leak test), comparing Ethicon ECHELON+ Stapler PSEE60A with GST Reloads GST60B to Medtronic Sigmoid™ and Endo GIA™ staplers with Tri-Staple Reloads EGA60AMT, p < 0.05 (IS5082-200829). 2 Benchtop testing in 3.3mm and 4.0mm porcine tissue comparing malformed staples between ECHELON+ Stapler with GST Reloads (GST60G0, GST60T) to Medtronic Sigmate™ Stapler with Tri-Staple™ Reloads (EGA60AMT, EGA60AX/T) and Endo GIA™ with Tri-Staple™ Reloads (EGA60AMT, EGA60AX/T). Percentage malformed results 1.9% vs. 3.0%, p < 0.05 (IS5082-200829). 3 Benchtop testing in 3.3mm synthetic tissue comparing staple line compression between ECHELON+ Stapler with GST Reloads (PSEE60A, GST60G0, GST60T) to Medtronic Sigmate™ and Endo GIA™ staplers with Tri-Staple™ Reloads (EGA60AMT). Resulting in a statistically significant compression uniformity, p < 0.05 (IS5082-200841). 4 Benchtop testing in porcine tissue, the ECHELON™ GST System (PSEE60A, GST60G0) had less mean longitudinal change in 3.3mm thick tissue, 0.54 vs. 0.65, compared to the Sigmate™ stapling System (EG60AMT, EGA60AMT), p-value < 0.05. Based on additional testing, ECHELON+ Stapler with GST Reloads showed less average tissue slippage and was statistically concluded to have at most 0.9% more tissue slippage than the ECHELON FLEX™ GST System (p<0.05, IS5082-200829).
Re-engineered for advanced performance at the staple line

**ECHELON™+ Anvil**

*Refrined curvature* for more consistent compression and wider tapered pockets to better capture and form staples.

**Dynamic Firing**

*Optimized firing speed* that slows more dramatically in thick or dense tissue to enhance compression and audible feedback.

**Wider tapered anvil pockets**

for increased capture area and to guide staples into symmetric B-form

**Atraumatic tapered tip**

designed for gentler tissue handling and improvedotomy entry

**Built on a legacy of Gripping Surface Technology**

**Listen** as the motor slows to optimize compression in thick tissue.

**Thin tissue**

**Thick tissue**
Security you can rely on: Consistently outperformed Signia™ and Endo GIA™ Staplers with Tri-Staple™ Reloads¹-⁴

Fewer leaks at the staple line³

Better staple formation in thick tissue⁴

Observed leaks at the staple line

<table>
<thead>
<tr>
<th>Typical conditions</th>
<th>Challenging conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiologic pressure²</td>
<td>Supraphysiologic pressure¹</td>
</tr>
</tbody>
</table>

- **Physiologic pressure²**: Observed leaks at ≤30mmHg (n=30)
  - ECHELON™+ Stapler with GST Reloads: 0
  - Signia™ with Tri-Staple™ Reloads: 7
  - Endo GIA™ with Tri-Staple™ Reloads: 9

- **Supraphysiologic pressure¹**: Observed leaks at ≤52mmHg (n=30)
  - ECHELON™+ Stapler with GST Reloads: 14
  - Signia™ with Tri-Staple™ Reloads: 23
  - Endo GIA™ with Tri-Staple™ Reloads: 25

26mmHg average pressure experienced during intraoperative leak test

Percentage of malformed staples in thick tissue

- ECHELON™+ Stapler with GST Reloads: 1.1%
- Signia™ and Endo GIA™ with Tri-Staple™ Reloads: 4.3%

¹ Benchtop testing in porcine tissue ≤30mmHg (26mmHg average pressure experienced during intra-operative leak test), comparing Ethicon ECHELON+ Stapler PSE6060A with GST Reloads GST60B to Medtronic Signia Stapler with Tri-Staple Reloads EGAA04AMT. Cumulative number of leaked tests (6/30) & (6/30) respectively, n=30 p < 0.05 (N03502-000818).
² Benchtop testing in porcine tissue ≤30mmHg (26mmHg average pressure experienced during intra-operative leak test), comparing Ethicon ECHELON+ Stapler PSE6060A with GST Reloads GST60B to Medtronic Endo GIA™ with Tri-Staple™ Reloads EGAA04AMT. Cumulative number of leaked tests (6/30) & (6/30) respectively, n=30 p < 0.05 (N03506-000981).
³ Benchtop testing in 3.3mm and 4.0mm porcine tissue comparing malformed staples between ECHELON+ Stapler with GST Reloads GST60G, GST60C to Medtronic Signia® Stapler with Tri-Staple™ Reloads (EGAA04AMT, EGAA04AT) and Endo GIA™ with Tri-Staple™ Reloads (EGAA04AMT, EGAA04AT). Percentage malformed results: 1.1% vs 4.3%, p < 0.05 (N0340-000826).
Superior tissue management and control compared to Medtronic powered and manual staplers with Tri-Staple™ Reloads

More uniform compression

Less tissue slippage during firing

Two-stage compression designed to prepare tissue for stapling and achieve a uniform staple height

32% more uniform compression of stapled tissue

ECHELON™+ Stapler with GST Reloads

Endo GIA™ with Tri-Staple™ Reloads

Exceptional staple line integrity, across the broadest range of tissue thickness

ECHELON™ GST Reloads

Tri-Staple™ Reloads

1 Benchtop testing in 3.2mm synthetic tissue comparing staple line compression between ECHELON™+ Stapler with GST Reloads (PSEE60A, GST60B, GST60G) to Medtronic Signia® and Endo GIA™ Staplers with Tri-Staple™ Reloads (EGIA60AMT). Resulting in a statistically significant compression uniformity, p<0.05 (559792101094). 2 In benchtop testing in porcine tissue, the ECHELON™ GST System (PSEE60A, GST60G) had less mean longitudinal change in 3.3mm thick tissue, 0.94 vs 3.65% compared to the Signia™ Stapling System (3GPHANDLE, EGIA60AMT), p-value <0.05. Based on additional testing, ECHELON+ Stapler with GST Reloads showed less average tissue slippage and was statistically concluded to have at most 0.76±4mm more tissue slippage than the ECHELON FLEXITM0 GST System (p<0.03, 148786-900805). 3 The ECHELON FLEXITM GST System was designed and tested to meet rigorous design requirements for staple line integrity. The GST System accommodates a tissue thickness range of 1.0mm to 4.0mm (measured at 8g/cm2, tissue comfortably compressed to closed staple height during firing per IFU) while the Medtronic Tri-Staple® portfolio is intended for a tissue thickness range of 0.75mm to 3.0mm (per IFU & materials downloaded from Medtronic website on Nov 15, 2018).
ECHELON Staplers: Performance-driven results, backed by evidence

Design differences matter when it comes to performance and results. Since 2017, the use of ECHELON Powered Staplers has demonstrated an association with improved clinical and economic outcomes—across tissue types, patient populations and countries—in large-scale, real-world, peer-reviewed studies.¹

ECHELON > a better way to staple

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**Improved clinical and economic outcomes**

- Reduced hemostasis-related complications²
- Reduced hospital costs²
- Improved efficiency

**Demonstrated by large-scale, real-world evidence¹**

- 5 studies
- 4 countries
- 700+ hospitals
- 40+ authors
- 41,500+ patients

¹ Based on literature search performed May 2019. Large-scale is defined as sample size greater than 3,500 cases. ² Rawlin L, Johnson BH, Johnston SS, et al. Comparative Effectiveness Assessment of Two Powered Surgical Stapling Platforms in Laparoscopic Sleeve Gastrectomy: A Retrospective Matched Study. Medical Devices: Evidence and Research, 2020;3(9):195-204. doi: https://doi.org/10.2447/MDER.1526237. Analysis of clinical and economic outcomes from 982 laparoscopic sleeve gastrectomy cases between March 1, 2017 and December 31, 2018 from Premier Healthcare Database. 0.01% versus 2.24%, p=0.0012; 0.771 vs. 10.84%, p<0.001 (0.40350-20.00554).
Ordering information

ECHELON™+ Stapler with GST Reloads (ECHELON FLEX™ Powered Plus Stapler and ECHCELON ENDOPATH™ Reloads with GST)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Jaw length</th>
<th>Qty</th>
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<tbody>
<tr>
<td>PCEE45A</td>
<td>Compact Articulating Endoscopic Linear Cutter,* 280mm</td>
<td>45mm</td>
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<td>PCEE60A</td>
<td></td>
<td>60mm</td>
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<td>60mm</td>
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*Instrument does not contain a reload

Reloads

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<tr>
<th>Code</th>
<th>Color</th>
<th>Description</th>
<th>Open staple height</th>
<th>Closed staple height</th>
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<tr>
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<td>Gray reload intended for use in mesenteric/thin tissue (Reload does not include Gripping Surface Technology)</td>
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<tr>
<td>GST45W</td>
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<td>White reload intended for use in vascular/thin tissue</td>
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<td>GST45B</td>
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<td>GST45D</td>
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<td>GST45G</td>
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<td>GST45I</td>
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ECHELON ENDOPATH™ Staple Line Reinforcement

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<td>ECHELON ENDOPATH™ Staple Line Reinforcement</td>
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How to order

All purchase orders are made to Johnson & Johnson Health Care Systems, Inc. (JHCS). If you want to order direct, you may order electronically (online) at:
- https://us.jjcustomerconnect.com or 1-866-565-4283
- Electronic Data Interchange (EDI) Helpline: 1-800-262-2888

Or, to place a non-electronic (manual) order, contact Johnson & Johnson Health Care Systems Inc. at 1-800-255-2500 between 8:30 a.m. and 6:30 p.m. (Eastern Standard Time) or fax us at 1-732-562-2212.

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Learn more at: ethicon.com/EchelonPlus

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