

DIFFERENT. BECAUSE IT HAS TO BE.

So you can seal pulmonary veins and arteries — up to and including 7 mm in diameter — with confidence¹⁻⁶

Comparing the LigaSure™ Maryland jaw thoracic sealer/divider to our original LigaSure™ Maryland jaw device

Compared to systemic vasculature, pulmonary vessels are:

PHYSIOLOGICALLY DIFFERENT

Significantly lower blood pressure⁷

Thinner, less muscular, and more elastic walls^{8,9}

INHERENTLY COMPLEX

Vascular morphology and elasticity of pulmonary arteries varies throughout the pulmonary system¹⁰

Pulmonary veins have more collagen content than pulmonary arteries⁹

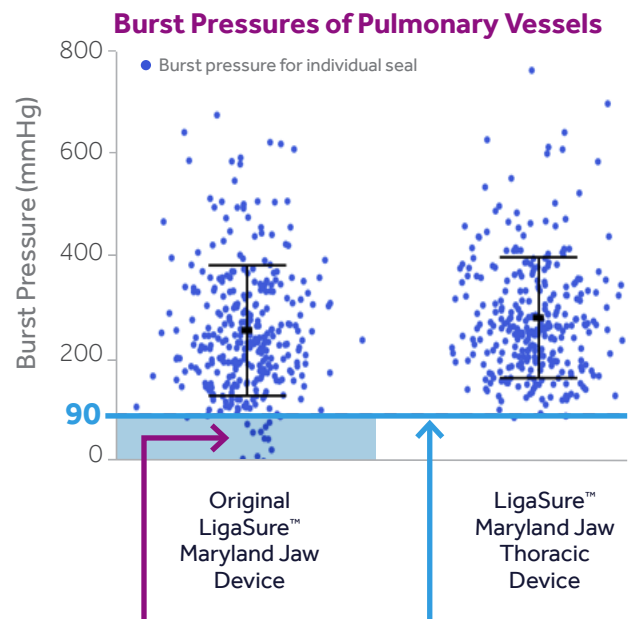
These variations highlighted the need to evaluate our devices differently, which led to design changes to our LigaSure™ Maryland jaw thoracic device.¹¹

EVIDENCE-BASED TECHNOLOGY. PROVEN PERFORMANCE.¹¹

Based on preclinical test results, we narrowed the specifications of two proprietary jaw parameters for the LigaSure™ Maryland jaw thoracic device.

These changes significantly improve the reliability of pulmonary sealing performance compared to the original LigaSure™ Maryland device (See Figure 1).¹¹

Figure 1. The Maryland jaw thoracic device delivers statistically significant higher burst pressures on pulmonary veins and arteries than the original Maryland device ($p < 0.05$; $n \geq 304$ per group).¹¹



4.4%
of seals have burst pressures that don't meet the LigaSure™ technology performance standard on pulmonary vasculature¹¹

3X
normal pulmonary systolic blood pressure (30 mmHg)⁷



Medtronic
Further. Together

DESIGNED FOR YOUR SPECIALTY.

Reliable vessel-sealing technology —
optimized for thoracic surgery^{1–6}



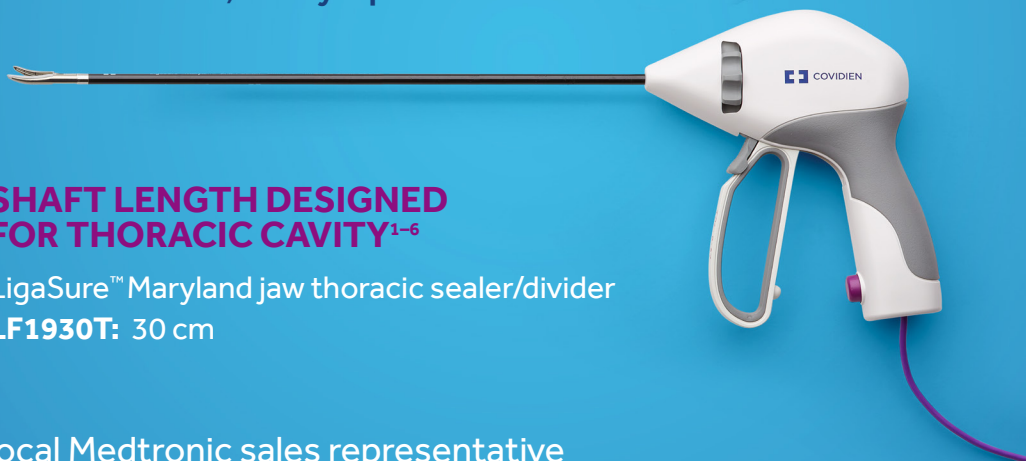
**Tan packaging designed to
match vascular stapler reloads**

It's just one way to further
differentiate the device, in a
way that is familiar to thoracic
surgery teams.¹²

The LF1930T can be used on vessels (arteries, veins, pulmonary arteries, pulmonary veins) up to and including 7 mm. It is intended for use in minimally invasive or open surgical procedures where ligation and division of vessels, tissue bundles, and lymphatics is desired.⁶

**SHAFT LENGTH DESIGNED
FOR THORACIC CAVITY^{1–6}**

LigaSure™ Maryland jaw thoracic sealer/divider
LF1930T: 30 cm



For more information, call your local Medtronic sales representative
or visit medtronic.com/valleylab

The original LigaSure™ Maryland jaw device and LigaSure™ Maryland jaw thoracic device are both indicated for thoracic procedures. However, only the LigaSure™ Maryland jaw thoracic device is indicated specifically for sealing pulmonary vasculature.

1. Based on internal report #RE00138840, LIG-45 memo, device length recommendation, thoracic (LF1930T). Feb. 6, 2018.
2. Based on internal test report #RE00125866, Jaw force and gap range burst pressure evaluation of EB4 thoracic Maryland device (LF1930T); conducted on bovine tissue. Nov. 20–21, 2017 and Nov. 27–30, 2017.
3. Based on internal test report #RE00134865, Burst pressure verification of pulmonary bovine veins using the LigaSure™ LF1930T device. Jan. 17–18, 2018.
4. Based on internal test report #RE00122515, Verification of the LigaSure™ LF1930T device in a GLP chronic hemostasis canine study on pulmonary vasculature. Jan. 8–10, 2018.
5. Based on internal test report #RE00128442, GLP acute pulmonary vasculature hemostasis verification study of the LigaSure™ LF1930T device in hounds. Dec. 8, 2017.
6. LigaSure™ Maryland Jaw Sealer/Divider, Nano-Coated [instructions for use]. Boulder, CO: Medtronic; 2016.
7. Based on internal report #RE00049743, Literature review of resting and peak pulmonary arterial pressures in humans. July 6, 2015.
8. Lust RM. Pulmonary and bronchial circulation. In S.J. Enna, D.B. Bylund (Eds.), *xPharm: The Comprehensive Pharmacology Reference*. 2008;1–8. Amsterdam, NL: Elsevier. doi.org/10.1016/B978-0-08055232-3.60309-5.
9. Townsley MI. Structure and composition of pulmonary arteries, capillaries and veins. *Compr Physiol*. 2013;2:675–709. doi:10.1002/cphy.c100081.
10. Lammers S, Scott D, Hunter K, Tan W, Shandas R, Stenmark KR. Mechanics and function of the pulmonary vasculature: implications for pulmonary vascular disease and right ventricular function. *Compr Physiol*. 2012;2(1):295–319. doi: 10.1002/cphy.c100070.
11. Based on internal test report #RE00145708_rev B, Pulmonary testing comparing the LigaSure™ Maryland jaw thoracic device to the original Maryland jaw device. September 2017.
12. Based on internal report # RE00142527, (LF1930T) OR staff formative evaluation report. Dec 6–7, 2017 and Dec 12–13, 2017.

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