DIFFERENT. BECAUSE IT HAS TO BE.

Comparing the LigaSure™ Maryland jaw thoracic device to our original LigaSure™ Maryland jaw device

Seal pulmonary veins and arteries — up to and including 7 mm in diameter — with confidence[1–6]

Compared to systemic vasculature, pulmonary vessels are:

PHYSIOLOGICALLY DIFFERENT	**Significantly lower blood pressure[7]**	**Thinner, less muscular, and more elastic walls[8,9]**
INHERENTLY COMPLEX	**Vascular morphology and elasticity of pulmonary arteries varies throughout the pulmonary system[10]**	**Pulmonary veins have more collagen content than pulmonary arteries[9]**

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

LigaSure™ technology provides a unique combination of **pressure and energy** to denature collagen and elastin within the vessel — giving you a permanent, reliable seal.

Optimized jaw pressure for sealing pulmonary vasculature[11]

Although visually unchanged from the original LigaSure™ Maryland jaw device, the jaw pressure of the LigaSure™ Maryland jaw thoracic device has been optimized for pulmonary vessels by narrowing the specifications of two proprietary jaw parameters.[11]

Powered by our most advanced energy platform

The LigaSure™ Maryland jaw thoracic device is only compatible with the Valleylab™ FT10 generator because it:

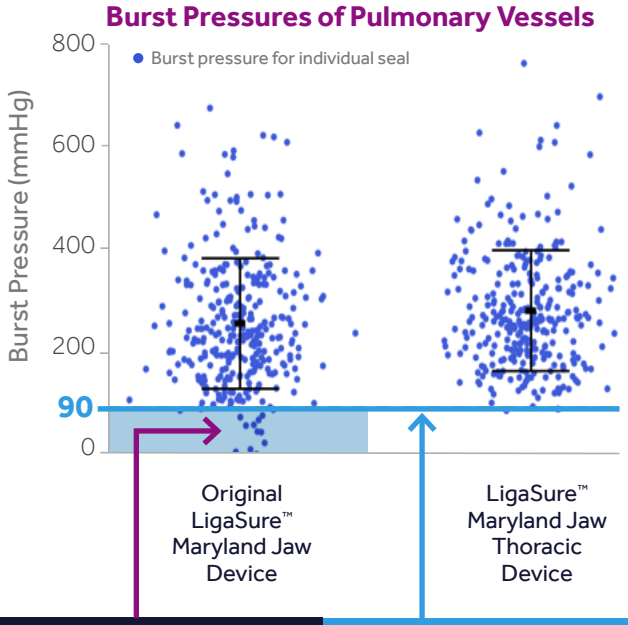
- Makes LigaSure™ devices better — and faster[12,†]
- Reads tissue 434,000 times per second and automatically adjusts energy output to maintain the desired clinical effect[13]

Medtronic
Further, Together

EVIDENCE-BASED TECHNOLOGY. **PROVEN PERFORMANCE.**[11]

Based on preclinical test results, we made changes to the jaws of the LigaSure™ Maryland jaw thoracic device that significantly improve the reliability of pulmonary sealing performance compared to the original LigaSure™ Maryland device (See Figure 1).[11]

Figure 1. The LigaSure™ Maryland jaw thoracic device delivers statistically significant higher burst pressures on pulmonary veins and arteries than the original LigaSure™ 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 vasculature[11]

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

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

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.
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.
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. Bench testing model used to evaluate sealing time. Based on internal report #RE00025819 rev A, LigaSure™ data sources for VLFT10 white papers. September 2015.
13. Based on internal memo #RE00256209 rev A, Valleylab™ FT10 memo control system resolution in VLFT10GEN. March 2020.

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.

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5920 Longbow Drive
Boulder, CO 80301 800.722.8772 **medtronic.com/covidien**

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