

# TONSILLECTOMY REDEFINED.



The BiZact™ tonsillectomy device delivers clinical benefits compared to outcomes published in literature on monopolar electrosurgery and the Coblator™ device. It's an advanced bipolar vessel sealer that:

- Reduces intraoperative blood loss<sup>1-3,†</sup>
- Minimizes tissue damage<sup>4-6</sup>
- May cause patients less postoperative pain<sup>7,‡</sup>

"The vast majority of [our] patients said they were returning to normal daily activities and normal consumption of foodstuff quicker than they expected — and even I expected.<sup>§</sup>"

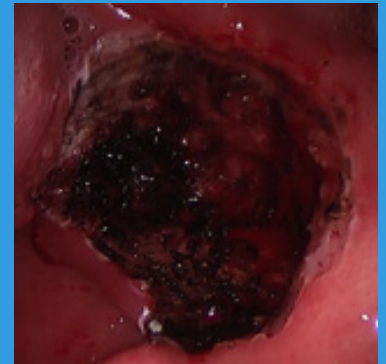
**Dr. Per Attner**

Department of Oto-RhinoLaryngology  
Sophiahemmet Hospital  
Stockholm, Sweden  
Interviewed March 2017



## See the Difference

Photos taken directly after tonsillectomy procedures show the visible difference in tissue effect



Monopolar electrosurgery



The BiZact™ device



The Coblator™ device

†Average intraoperative bleeding in 17 cases was 7.3 mL for BiZact™ device, compared to 10.83 mL for the Coblator™ device and 27.08 mL for electrocautery.

‡Compared to conventional techniques. BiZact™ device was not a part of this meta-analysis.

§ Surgeon feedback after more than 30 BiZact™ device tonsillectomy procedures.



# LOW ENERGY, MINIMAL TISSUE DAMAGE<sup>4-6</sup>

The BiZact™ device is powered by Valleylab™ energy platforms that deliver consistent and reliable seals. That means that, compared to an electro-surgical pencil, the BiZact™ device can provide a:

- Significantly lower maximum external jaw temperature<sup>8</sup>
- Significantly faster jaw cooldown time<sup>8</sup> to 60 C

The BiZact™ device delivers an average thermal spread of < 1 mm.<sup>4</sup>

While the BiZact™ device hasn't yet been evaluated for pain reduction, comparable vessel-sealing systems have. In some studies, technology similar to the BiZact™ device helped tonsillectomy patients experience less pain than techniques like Coblation™, electrocautery, and Harmonic™ scalpel.<sup>7,‡</sup>



# REDUCED BLOOD LOSS

The BiZact™ tonsillectomy device is a vessel sealer. That means it can:

- Reduce intraoperative blood loss compared to outcomes published in literature on electro-surgical pencils, cold knives, and the Coblator™™ device<sup>1-3</sup>
- Create seals that withstand three times normal systolic blood pressure<sup>9,†</sup>

†Based on internal bench testing, probability of burst ≥ 360 mm Hg is ≥ 96.1%.

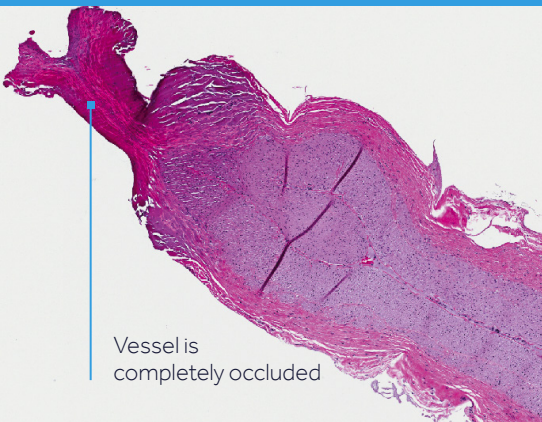
‡Compared to conventional techniques.

Contact your Medtronic sales representative to see how the BiZact™ tonsillectomy device can transform your procedures



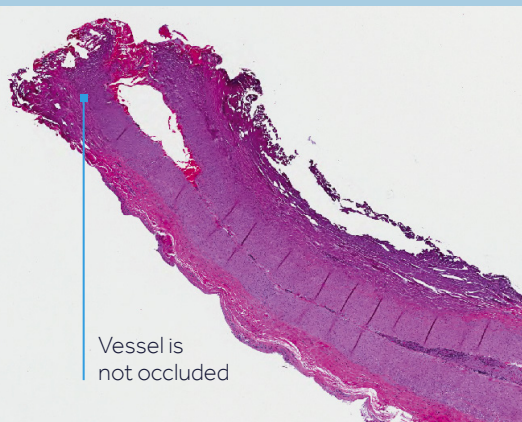
## Hematoxylin and Eosin (H&E) Stained Images<sup>10</sup>

BiZact™ device



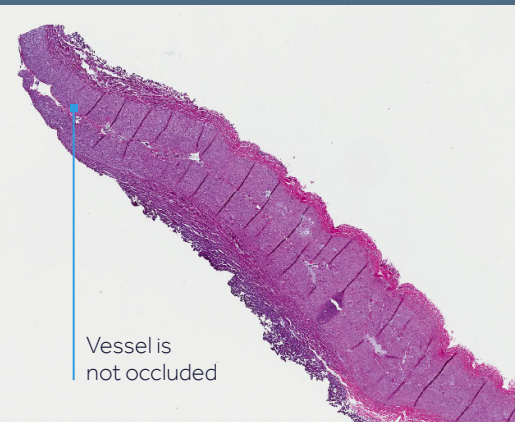
Vessel is completely occluded

Monopolar electro-surgery



Vessel is not occluded

Coblator™™ device



Vessel is not occluded

1. Based on internal test report #RE00003687, Data collected during 17 procedures for product introduction, April-June 2017.
2. Roje Z, Racić G, Dogas Z, Pisac VP, Timms M. Postoperative morbidity and histopathologic characteristics of tonsillar tissue following coblation tonsillectomy in children: a prospective randomized single-blinded study. *Coll Antropol.* 2009;33(1):293-298.
3. Lachanas VA, Prokopakis EP, Bouroulas CA, et al. LigaSure™ device versus cold knife tonsillectomy. *Laryngoscope.* 2005;115(9):1591-1594.
4. Based on internal test report #RE00015788, Tissue testing, March 23, 2017.

5. Wilson YL, Merer DM, Moscatello AL. Comparison of three common tonsillectomy techniques: a prospective randomized, double-blinded clinical study. *Laryngoscope.* 2009;119(1):162-170.
6. Jones DT, Kenna MA, Guidi J, Huang L, Johnston PR, Licameli GR. Comparison of postoperative pain in pediatric patients undergoing coblation tonsillectomy versus cauterly tonsillectomy. *Otolaryngol Head Neck Surg.* 2011;144(6):972-977.
7. Alexiou VG, Salazar-Salvia MS, Jervis PN, Falagas ME. Modern technology-assisted vs conventional tonsillectomy: a meta-analysis of randomized

- controlled trials. *Arch Otolaryngol Head Neck Surg.* 2011 Jun;137(6):558-570.
8. Based on internal test report #RE00011247, Benchtop testing comparing the BiZact™ tonsillectomy device with the E1551X Valleylab™ Hex-locking blade electrode. March 23, 2017.
9. Based on internal test report #RE00077022, Porcine testing. Jan. 9-10, 2017.
10. Based on internal test report #RE00089921, Histological image collection with BiZact™ BZ4212, a monopolar electro-surgical device E1551X, and the Coblator™™ Surgery System. March 30 and April 11, 2017.

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5920 Longbow Drive  
Boulder, CO 80301

800.722.8772

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