

Medtronic

Preserve their future

The Emprint™ SX ablation platform combines real-time, 3-D ultrasound and Thermosphere™ technology, increasing your confidence in complete non-resectable tumor eradication¹⁻³



Preserve their future^{4,5}

Successful management of non-resectable liver tumors is about more than what you remove – it's about what you leave behind, too.

Our purpose-built innovation helps you eradicate your patients' non-resectable liver tumors and preserve more of their healthy parenchyma^{3,6,7} – because their future depends on both.

Includes revolutionary Thermosphere™ technology

The Emprint™ SX ablation platform combines real-time, 3-D ultrasound and patented Thermosphere™ technology. The combination of these helps to increase your confidence in target accuracy^{1,2} and complete tumor coverage with adequate margins.^{3,6}

HD touch screen to control and display the ablation system

Designed with an intuitive interface¹ to help staff easily set up the system

Fully integrated ablation and navigation hardware platform

Platform is compatible with laparoscopic and open (BK™ and Aloka™) ultrasound transducers

System cart is designed to have small footprint and mobile for use in the OR



Improves successful antenna placement

Targeting an antenna placement using ultrasound is challenging. Failure to accurately place a MWA antenna increases the risk of incomplete ablation and local recurrence.

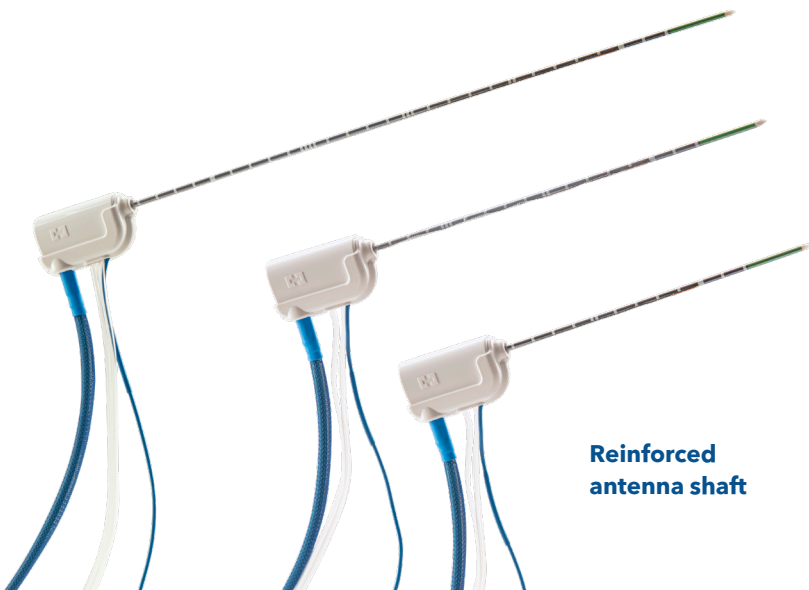
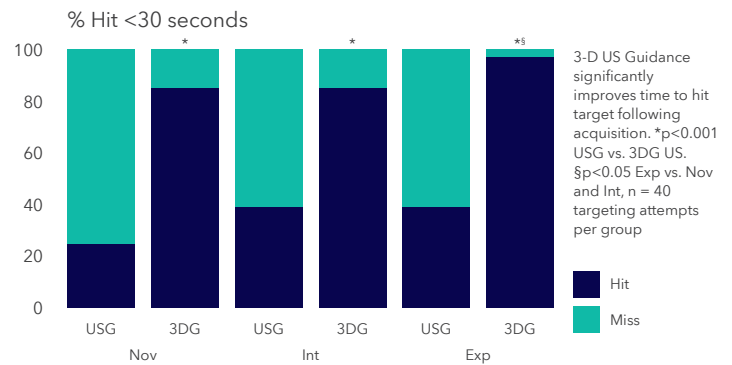
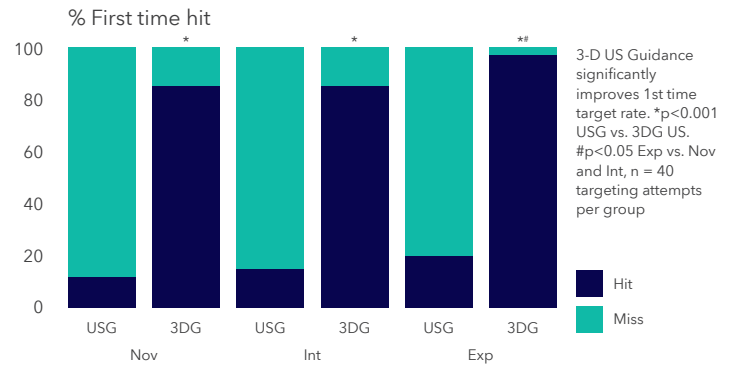
To master antenna placement requires time, practice, and a comprehensive understanding of anatomical landmarks.

A recent study evaluated whether the Emprint™ SX ablation platform affected time and accuracy of antenna placement in a laparoscopic training model.⁸ This study concluded that this unique 3-D ultrasound guided (3DG) ablation platform improves successful antenna placement versus standard ultrasound guidance (USG) upon first attempt. Results were independent of user experience and improvements were most pronounced in inexperienced users.

System characteristics that enable these results include:

- Advanced 3-D tracking shows the position of the Emprint™ SX ablation antenna and ultrasound transducer relative to the surgeon's perspective in real-time.²
- Projected antenna path allows trajectory planning prior to antenna placement.^{1,8,9}

Targets (7–10 mm) were set in agar within a laparoscopic training device. Novices (no surgical experience), intermediates (surgical residents), and experts (HPB surgeons) were asked to locate and hit targets using a MWA antenna. Participants located 10 targets using ultrasound only and 10 targets using the Emprint™ SX ablation system. There were 4 participants per experience group.



Reinforced antenna shaft



SKU	Descriptor
CASYS100	Ablation platform with Thermosphere™ technology
CAUS1SN	Ultrasound surgical navigation application
CAFG1	Field generator
CAFGCART1	Field generator cart
CAFGSP1	Field generator spacer
CA190RC1	Ablation reusable cable

SKU	Descriptor
CA15L2N	Short navigation antenna with Thermosphere™ technology
CA20L2N	Standard navigation antenna with Thermosphere™ technology
CA30L2N	Long navigation antenna with Thermosphere™ technology
CAAL9132	Open ultrasound tracking sensor
CAAL9150L	Laparoscopic ultrasound tracking sensor
CABK8816	Open ultrasound tracking sensor
CABK8666L	Laparoscopic ultrasound tracking sensor

*Navigation software provided by InnerOptic Technology, INC

References

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4. Ruers T, Van Coevorden F, Punt CJ, et al. Local Treatment of Unresectable Colorectal Liver Metastases: Results of a Randomized Phase II Trial. *J Natl Cancer Inst*. 2017;109(9):djj015.
5. Drake TM and Harrison EM. Malignant Liver Tumours. *Surgery*. 2017;35(12):707-714.
6. Vogl TJ, Basten LM, Nour-Eldin A, et al. Evaluation of microwave ablation of liver malignancy with enabled constant spatial energy control to achieve a predictable spherical ablation zone. *Int J Hyperthermia*. 2018;34(4):492-500.
7. Based on internal document #RE00085432. An acute glp study to evaluate the performance and safety of the Emprint™ SX ablation platform in a porcine model. 2017.
8. Sastry AV, Swet JH, Murphy KJ, et al. A novel 3-dimensional electromagnetic guidance system increases intraoperative microwave antenna placement accuracy. *HPB (Oxford)*. 2017;19(12):1066-1073.
9. Based on internal test report #RE00085823, Emprint™ SX system validation report. April 2017.