



 **Magtrace®**

*A simple solution*  
**for breast  
cancer staging**



# The world's *first*<sup>1</sup> non-radioactive dual tracer

The Magtrace® lymphatic tracer is a non-radioactive liquid solution, designed to simplify the marking and removal of sentinel lymph nodes.

Magtrace is widely proven to be non-inferior to the 'gold standard' for SLNB<sup>2</sup> and provides new opportunities for surgical de-escalation.



## Radiation *free*

Iron oxide. Sugar. Salt. Water.

Four simple ingredients that together provide a safe and flexible way to stage early breast cancer, without compromising on clinical effectiveness<sup>2</sup>.



## *Optimized* for nodes

The tiny particles in Magtrace are optimized for uptake in the lymph nodes, without migrating to higher echelon nodes<sup>2</sup>.

They provide a clear signal as you move closer, as well as visual guidance, when performing sentinel node biopsy procedures.

<sup>2</sup>Pantiora et al (2022)

<sup>3</sup>Karakatsanis et al (2021)



## Everything you need, anytime you need it

Magtrace allows you to plan injections any time ahead of surgery, to suit the schedules of you and your patients, without compromising on efficacy or accuracy.



## Patient experience *first*

Eliminate patient pain by injecting Magtrace in the OR after anesthesia.

If injected ahead of surgery, Magtrace has been noted to cause less patient discomfort than radioactive isotopes<sup>4</sup>.



<sup>4</sup> Shams et al (2021) Study of 59 patients monitoring patient discomfort

## No benefit? No surgery. *No brainer.*

Up to 80% of high-risk DCIS patients may be able to avoid unnecessary lymph node surgery with Magtrace and the 'Delayed' SLNB approach<sup>4</sup>.

With its long-term detection window, you only need to proceed with axillary surgery once pathology confirms there's a benefit.

<sup>3</sup> Karakatsanis et al (2023)

Read the clinical data  
behind the technique:



Scan QR



SaveOurNodes

Only possible with  Magtrace.



## Working in *harmony*

Combining Magtrace with the Magseed® marker makes localization and staging uniquely possible using just one platform, and just one probe.

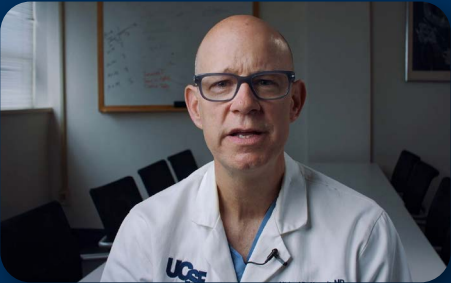
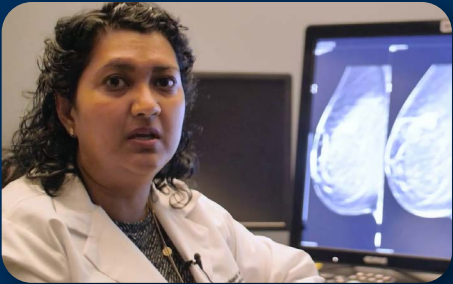
Data shows this shortens operative times and achieves low re-excision rates (2.9% in 426 patients). In one study, 25 breast care specialists indicated increased satisfaction with the 'MagTotal' technique<sup>5</sup>.

<sup>5</sup> Pantiora et al (2023)



# Trusted by *experts*, demanded by *patients*

Magtrace has allowed thousands of physicians around the world to take back control of their schedules, eliminate unnecessary surgery<sup>3</sup> and provide a better patient experience<sup>4</sup>.



<sup>3</sup> Karakatsanis et al (2023), <sup>4</sup> Shams et al (2021)

# Backed by data

An abstract graphic featuring a dark, glossy, anatomical representation of a breast and lymphatic system. Several small, dark, spherical lymph nodes are positioned around the main structure. The entire graphic is overlaid on a background of concentric, light gray circles that expand outwards from the center.

Magtrace is widely proven across an extensive library of over 100 published clinical studies.

A prominent example is the Pantiora et al (2022) meta-analysis, featuring 4,000 patients from 27 studies, comparing Magtrace with the 'Gold Standard'.

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**10,000+**

Patients in clinical trials\*

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**1.96**

Average nodes retrieved<sup>2</sup>

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**98.7%**

SLN detection rate per patient<sup>2</sup>

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 Sentimag.  Magseed.  Magtrace.

# One platform.

Evaluate the full Sentimag® platform.

[endomag.com/magtrace](https://endomag.com/magtrace) 



# Technical specifications



## General

Material	Iron oxide, Sugar (carboxydextran), Water, Salt - Non-radioactive
Particle size	60nm. Optimal for rapid migration and filtration by the sentinel nodes
Injection sites	Subareolar, peritumoral, interstitial
Injection timing	Flexible injection from 20 minutes to several weeks before surgery
Injection volume	1ml (US only, other territories may vary)
Patients treated	180,000+* globally
Imaging	Not detectable on Mammo, US or CEDM



## Sensing

Sensing type	Counts Mode
Detection properties	Magnetic signal and visual node discoloration
Detection window	Median of 28 days post-injection <sup>3</sup>
Sensing direction	360° – detectable from any angle
Different tissue types	No change in sensing ability

## Reliability

Approved by	FDA, CE, Health Canada, TGA, MDCO
Clinical data	11,000+ patients (June 2024)
Accuracy	98.7% detection rate <sup>2</sup>
Nodal yield	Average of 2.4 nodes per patient
Adverse effects	No reported serious adverse events**
MRI	MRI conditional (1.5T and 3.0T)

<sup>1</sup>Data on file at Endomag. Data correct as of December 2024.  
<sup>\*\*</sup>Data on file at Endomag. Endomag internal meta-analysis (090724) of clinical studies, correct as of December 2024,

### References

<sup>1</sup> MedTech Innovation News (2018) First non-radioactive device for breast cancer receives FDA approval. [www.med-technews.com/news/first-non-radioactive-device-for-breast-cancer-receives-fda/](http://www.med-technews.com/news/first-non-radioactive-device-for-breast-cancer-receives-fda/). Accessed January 1, 2025.  
<sup>2</sup> Pantiora et al (2022) Evolution and refinement of magnetically guided sentinel lymph node detection in breast cancer: meta-analysis. *Br J Surg.* 2023 Mar 30;110(4):410-419. doi: 10.1093/bjs/znac426  
<sup>3</sup> Karakatsanis et al (2021) Magnetic-Guided Axillary Ultrasound (MagUS) Sentinel Lymph Node Biopsy and Mapping in Patients with Early Breast Cancer. A Phase 2, Single-Arm Prospective Clinical Trial. *Cancers (Basel).* 2021 Aug 25;13(17):4285. doi: 10.3390/cancers13174285.  
<sup>4</sup> Shams et al (2021) A Pilot Study Evaluating the Effects of Magtrace® for Sentinel Node Biopsy in Breast Cancer Patients Regarding Care Process Optimization, Reimbursement, Surgical Time, and Patient Comfort Compared With Standard Technetium99. *Ann Surg Oncol.* 2021 Jun;28(6):3232-3240. doi: 10.1245/s10434-020-09280-1  
<sup>5</sup> Pantiora et al (2023) Magnetic Seed vs Guidewire Breast Cancer Localization With Magnetic Lymph Node Detection: A Randomized Clinical Trial. *JAMA Surg.* 2024 Mar 1;159(3):239-246. doi:10.1001/jamasurg

For more clinical data visit our website:



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**Important Safety Information:** The Magtrace® lymphatic tracer and Sentimag® Magnetic Localization System is indicated to assist in localizing lymph nodes draining a tumor site, as part of a sentinel lymph node biopsy procedure (SLNB), in patients with breast cancer undergoing a mastectomy or lumpectomy. Magtrace® is contraindicated for known hypersensitivity to iron oxide or dextran compounds, iron overload disease, a metal implant in the axilla or in the chest, SLNB before neoadjuvant chemotherapy (NAC) where magnetic resonance imaging (MRI) will be the primary imaging used for monitoring the progress of NAC, patients identified in advance to require post-lumpectomy imaging with breast MRI. For a complete list of warnings and precautions, please see the Instructions for use for the device.

The Endomag Magseed® Magnetic Marker is indicated for use to radiographically mark soft tissue during a surgical procedure or for future surgical procedures. Using imaging guidance such as ultrasound or radiography or aided by non-imaging guidance (Endomag Sentimag® System) the marker is located and surgically removed with the target tissue. The Endomag Sentimag® System is the only non-imaging guidance system intended for use with the Magseed® Magnetic Marker. The Endomag Magseed® is not intended for use in the central nervous system, circulatory system, heart, eyes or brain. The device should not be placed in a tissue site with clinical evidence of infection. For a complete list of warnings and precautions, please see the Instructions for use for the device.

The Sentimag® Magnetic Localization System when used with the Magseed® is indicated to assist in localizing soft tissue lesions. The Endomag Sentimag® System is the only non-imaging guidance system intended for use with the Magseed® magnetic marker. The device is not intended for use in the central nervous system, circulatory system, heart, eyes or brain. The device should not be placed in a tissue site with clinical evidence of infection. For a complete list of warnings and precautions, please see the Instructions for use for the device.

The Endomag Magseed Pro® Magnetic Marker System is indicated for use to radiographically mark soft tissue during a surgical procedure or for future surgical procedures. The device is not intended for use in the central nervous system, circulatory system, heart, eyes or brain. The device should not be placed in a tissue site with clinical evidence of infection. For a complete list of warnings and precautions, please see the Instructions for use for the device.

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Clinical decisions regarding whether or not surgical intervention is appropriate should be made by the provider in consultation with the patient.