

“AXIEM’S high-speed graphics allow for true REAL-TIME VISUALIZATION. THE SOFTWARE UPDATES IMMEDIATELY, WHICH REALLY ENHANCES THE Image Quality.”

Stephen Papadopoulos, MD, Spine Surgeon, Barrow Neurological Institute, Phoenix, AZ

“ANY PATIENT WHO NEEDS NEURONAVIGATION can benefit from AXIEM... it’s a technology that gets you to the target more accurately.”

Michael Oh, MD, Neurosurgeon, Allegheny General Hospital, Pittsburgh, PA



Big Precision.

MEDTRONIC NAVIGATION RECOGNIZES THE NEED FOR innovative, new technologies to be straightforward, streamlined into the surgeon’s workflow and easy TO USE.

What is it?

Proprietary Electromagnetic Localization System

AXIEM™ electromagnetic navigation is a patented localization technology designed for use across several surgical specialties including Neurosurgery, Spinal Surgery, Orthopaedics, and Ear, Nose, and Throat Surgery.

Specific to Surgery

AXIEM technology utilizes the macro concepts of satellite navigation or global positioning, miniaturizes them, and integrates them into the surgical theatre.

Enhanced Surgical Experience

AXIEM navigation is seamlessly adapted into the normal workflow of the OR, and ultimately, inclusion of AXIEM may lead to enhanced surgical experiences and results.

Safety Ensured

Patented algorithms constantly monitor the electromagnetic field, including metal disturbances, to ensure safety to the patient, surgeon and staff at all times.

How does it work?

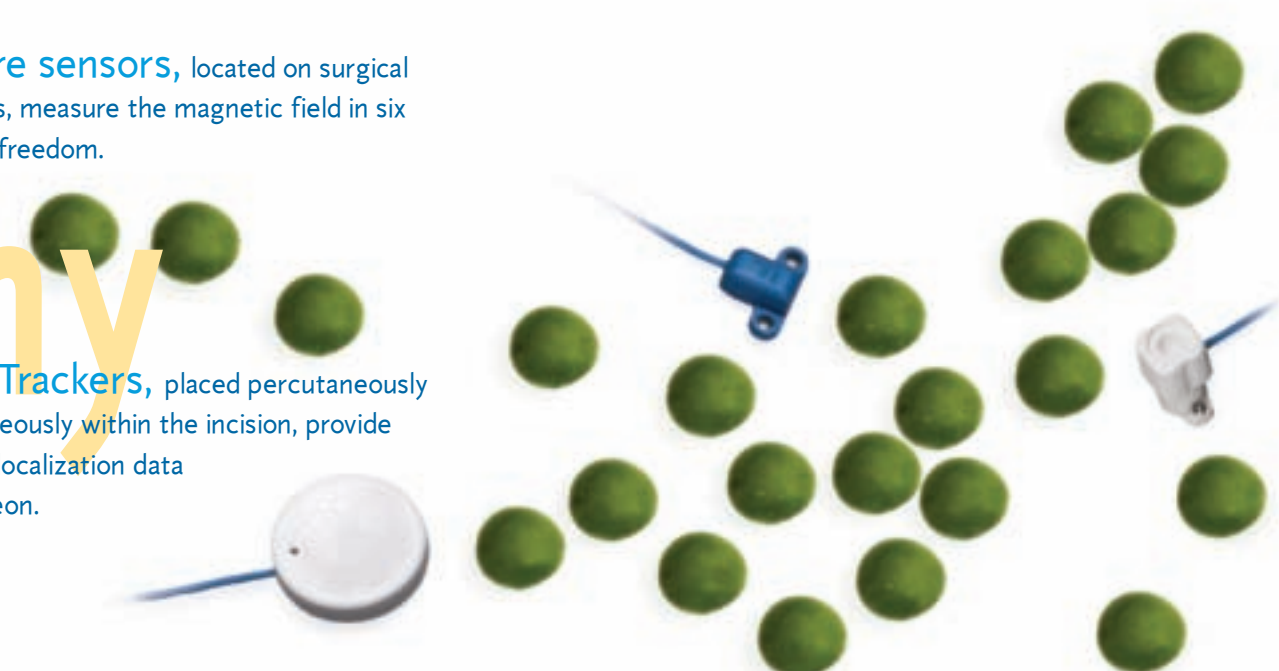
AXIEM Transmitter

AXIEM generates an electromagnetic field around the patient via a transmitter.

Miniature sensors, located on surgical instruments, measure the magnetic field in six degrees of freedom.

Tiny

Patient Trackers, placed percutaneously or subcutaneously within the incision, provide continuous localization data to the surgeon.



Always cutting-edge, MEDTRONIC NAVIGATION was inspired to begin development of its own surgical electromagnetic localization system in 1999, after careful analysis of systems available on the market. Based on surgeon need and input, the AXIEM localization technologies are helping to advance the standards of care for patients THE WORLD OVER.

Future applications already in the development pipeline include navigated delivery of cell and drug therapies and left-heart lead placement allowing optimal placement to the target anatomy or pathology.



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One or more of the following patents may apply to your Medtronic image guidance system and its associated applications. Patents are U.S. unless otherwise indicated.

5,592,939	6,747,539	6,474,341	6,381,485	6,374,134	6,757,557
6,104,944	6,347,240	6,235,038	6,499,488	6,516,212	6,636,757
6,493,573	6,434,415	6,402,762	5,913,820	6,522,907	6,892,909
6,701,179					

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AXIEM™ Electromagnetic Navigation



Tiny Surgical Powerhouse