



Medtronic Surgical Technologies Neurosurgery continues to celebrate significant milestones in its navigation business while recognizing installations of more than 500 O-arm® imaging systems, 2,000 AxiEM™ electromagnetic tracking systems, and 7,000 StealthStation® surgical navigation systems over time around the world.

These mark significant clinical milestones in the relatively new arena of intra-operative 3D imaging. Working together, the O-arm, AxiEM, and StealthStation navigation system solutions have enhanced surgery globally:

- The O-arm system boasts more than 1,200 surgeon users, and has benefitted more than 191,000 patients with this procedural solution.
- AxiEM electromagnetic tracking has been used by more than 4,200 surgeons and has affected more than 250,000 patients globally.
- The StealthStation system family has served more than 2,250,000 patients via 5,300 surgeons worldwide.

O-arm System. The O-arm system serves patient populations in 39 countries, solidifying its position as an industry leader in the intra-operative 3D imaging space. The O-arm system was specifically designed to provide optimal, multi-modal imaging to match surgical decision making needs while meeting critical OR and hospital workflow challenges so that the patient is the surgeon's primary focus. The O-arm system is designed to:

- Empower clinicians with on-time information in the OR to ensure surgical goals are met.
- Be a complete intra-operative imaging solution with 2D/3D imaging flexibility.
- Integrate easily within the surgical workflow (tables, anesthesia, lateral access for concurrent usage, memory positions).
- Minimize or eliminate radiation exposure to the surgeon and surgical staff.

AxiEM Electromagnetic Tracking.

StealthStation AxiEM surgical navigation system, the proprietary electromagnetic (EM) tracking technology developed by Medtronic Navigation, is the industry's first clinically available EM tracking solution. It works by generating an electromagnetic field around the patient's target anatomy that can be tracked to triangulate the positioning of instruments and patient-tracking devices during surgical navigation procedures.

- AxiEM technology allows flexible instruments (stylets, shunts, catheters) to be tracked at the tip, enabling the use of surgical navigation in procedures that were previously limited by the rigid optical-based tracking technology.
- The system is not impaired by a camera's line of sight to the tracked instruments. Instruments and staff can come in and out of the EM field with little or no disruption to the surgical navigation information.
- Patented algorithms constantly monitor the electromagnetic field, including metal disturbance, to ensure surgical navigation accuracy.



StealthStation Navigation. By integrating the most advanced instrument tracking technologies, intra-operative imaging and surgical planning software, our surgical navigation systems allow surgeons to accurately track their surgical instruments in relation to patient anatomy in real-time. The StealthStation surgical navigation system offers many benefits to the surgeon and OR staff including:

- Interface with intraoperative imaging systems.
- Optical or electromagnetic surgical instrument tracking during surgery.
- High-resolution, wide screen monitor.
- Access to pre-op exams, with DICOM Query/ Retrieve, so OR staff can search, view, and download patient exams directly over the hospital network.*

Medtronic is proud to work with the healthcare and surgical communities to deliver solutions that meet their procedural needs.

**For more information on these products intended use and risks, please consult the web pages or the complete user manuals.*