

Medtronic dives into augmented reality

Article

Med tech giant **Medtronic** [joined](#) forces with extended reality startup **Surgical Theater** to equip surgeons with AR tech to boost real-time visualization during cranial surgery. The duo will use AR to give neurosurgeons a way to test their surgical strategies before entering the operating room—and use AR during procedures to give the surgeons a live, 3D view superimposed on the surgical area for better navigation.

Extended reality can improve the safety and efficacy of surgical procedures—and cut down the time surgeons spend mapping out surgical techniques.

- **AR enables surgeons to keep their eyes on the patient, thereby reducing medical errors.** For context, surgeons need to continuously switch their focus among different sources of information, like patient monitors. But a single AR display integrates all patient and imaging data into one place, **enabling** surgeons to safely stay focused on the patient at all times. And enhancing surgeons' visuals should help avoid preventable medical errors, which collectively **cost** the US billions each year.
- **Surgeons can use VR to train and test their surgical approaches before entering the operating room, which should go a long way toward improving performance.** For example, VR firm **Osso VR** **uses** Oculus headsets to train surgeons on certain procedures, and its approach has paid off: In a recent study, the VR startup **reported** a **230%** improvement in surgeons' performance after training with the tech.

However, deep-pocketed academic hospitals will likely get their hands on AR/VR tech first—and it'll take considerable time before smaller, financially strained health systems adopt the tech on a wide scale.

- **Larger, well-funded hospitals like Johns Hopkins, Stanford, and Emory have dived into the AR surgical space.** For example, Johns Hopkins neurosurgeons in February were the first to **perform** AR-assisted surgeries on patients using AR startup **Augmedics'** headsets.
- **It's likely these hospitals will only ramp up their investments in AR.** More than **56%** of AR/VR professionals **expect** new tech to enhance assisted surgeries over the next two years, while **68%** expect new immersive tech to offer surgical training simulations—which means health systems will increasingly have larger pools of AR/VR vendors to choose from.
- **However, many smaller-scale hospitals are still recovering from pandemic-induced blows to revenues—likely making VR investments out of the question for now.** A February 2021 Kaufman Hall analysis indicates that even under an optimistic scenario, most US hospitals could collectively still lose **\$53 billion** in revenues this year alone.