

A Canadian First: State-of-the-Art Technology Makes Surgery Safer for Kids

Thanks to community donations, surgeons at the Alberta Children's Hospital are the first in Canada to have GPS-inspired technology to make surgery safer for children. **The O-Arm and Navigation System** are now benefitting children requiring surgery for their spine, brain, tumours, eyes and ear/nose/throat conditions and getting them home faster!

The new technology provides high quality, continuous real-time 3-D images in the operating room and is improving surgical conditions for both the patients and hospital surgery team. Capable of scanning from every angle, it gives surgeons the ability to operate with greater accuracy. As a result, children experience decreased tissue trauma, decreased post-operative pain and a decreased risk of contamination and infection.

Until now, surgeons have had to operate "blind" on some areas in the body. Like using GPS to navigate the human body, the O-Arm helps surgeons to "see" organs and structures that are hidden from the naked eye. With mere millimeters separating children's nerves, blood vessels, tissue and vital organs like the spinal cord, this new technology is an invaluable tool for surgeons performing complex procedures.

"Not only is the O-Arm helping to increase our intra-operative decision-making, increase surgical accuracy and reduce the invasiveness of many procedures, it also significantly reduces radiation exposure for both our surgical teams and our young patients," says Dr. David Parsons, an orthopedic surgeon at the Alberta Children's Hospital. "We are very grateful to the community for funding this amazing new technology."

"When you hear your daughter needs spinal surgery, it's frightening - no matter how much you love and trust your doctors," says Clare Menyes, mother of Amanda who underwent surgery for a spine curvature that was crushing her lungs. "When we heard what the O-Arm would enable surgeon to see and do while operating near Amanda's spinal cord, we began to breathe easier. And now, thanks to Amanda's amazing surgery – she's breathing easier too."

Last year, surgeons at the Alberta Children's Hospital operated on ten thousand of our community's children. It's estimated the O-Arm will help approximately 220 patients in the first year and ultimately will benefit thousands of children in years to come. This newest addition to the O.R. will help position our surgical team as visionary national leaders.

The Alberta Children's Hospital Foundation raises funds for excellence in child health and family centred care. Through the generosity of donors, the Foundation provides funding for innovative programs, state of the art equipment, advanced medical training and internationally-recognized pediatric research.

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