



March 2011

The Intra-Operative MRI

A Canadian First

On October 26, 2009 The Children's Intra-Operative MRI ("IOMRI") suite – the first of its kind in a pediatric Hospital in Canada – was officially inaugurated. Donors, Hospital staff and the first patient to benefit from this new technology came together for the official ribbon cutting ceremony.

The IOMRI offers many benefits to pediatric patient care:



- Quebec's top neurosurgeons have access to today's most advanced tools;
- Improves understanding of the chemical make-up of certain tumours;
- Locates the precise border between the tumour and eloquent cerebral regions for both surgical and beam therapies;

- Improves treatment for cancer patients;
- Reduces significantly the current wait time for an MRI;
- Enhances research in a number of areas, including neurosurgery, neurology, radiology, anesthesiology and autism.

Since little Émilie's groundbreaking surgery on October 19, 2009, the Intra-Operative MRI has had a profound impact on ultra-specialized surgeries, diagnostic testing and cutting edge research.

Ultra-Specialized Surgeries

- Sixty (60) ultra-specialized surgeries have been performed in the new operating suite. Some of these cases would have been deemed inoperable if not for this new powerful tool.
- The ability to perform MRI scans in the operating room has also dramatically reduced the need for additional surgeries and the use of chemotherapy and/or radiation treatment.

- The Intra-Operative MRI has helped to secure The Children's position as a world leader in neurology and neurosurgery and will continue to help our teams excel in this field.

Diagnostic Testing

- The addition of a second MRI has helped to virtually eliminate the Hospital's waiting list for diagnostic MRI exams (with the exception of patients requiring general anesthesia). This list had been as high as 800 patients.
- This dramatic reduction in wait times will enable the Hospital to meet the standards set by the Minister of Health.

Research

- When not being used for surgeries or testing, the IOMRI has proven to be a valuable research tool in the study of early childhood brain development.
- One example is therapeutic hypothermia, an important combined clinical and research program that measures the impact of total body cooling on cerebral blood flow and perfusion and the risk of developing brain injury. To be able to evaluate the effects of this therapy on the brain, MRI scans are required during the procedure and in the days and weeks directly following it.



The Intra-Operative MRI has proven to be an invaluable addition and will continue to play an important role in the delivery of care when it is housed at the new Children's. We are extremely grateful to all of the donors who helped to make this dream a reality.