

## Surgery the only solution for Jonathon Hanlon of Saint John, NB



Thomas, Jonathon and Natasha Hanlon, safe and sound at home in Saint John five months after the operation that saved Jonathon's life.

The first weeks of young Jonathon Hanlon's life were anything but typical. Although his mother's pregnancy was healthy, and the labour and delivery went well, it soon became evident that Jonathon had a serious problem.

Jonathon was born on May 4, 2011 at the Saint John Regional Hospital to proud parents, Natasha and Thomas Hanlon. But, recalls Thomas, he had just gone home for a nap the next morning when he received a galvanizing phone call from the hospital. "The hospital staff told me I had to come back right away," Thomas says. "Jonathon was having trouble breathing and his skin had turned a bluish tone."

Suspecting a problem with Jonathon's heart, the neonatal team promptly performed an ultrasound and sent the results to the IWK Health Centre in Halifax, Nova Scotia for further analysis. The Halifax team confirmed that Jonathon had been born with the heart defect known as transposition of the great arteries. He would have to be transported to the IWK immediately.

Transposition of the great arteries is not an uncommon birth defect. In this condition, the two major blood vessels that carry blood away from the heart are each connected to the wrong valve. As a result, oxygenated blood gets returned to the lungs, instead of being sent around the body. Blood coming back to the heart from the body gets sent back to the body without ever making the trip to the lungs to pick up oxygen.

Dalhousie Medical School's Dr. Stacy O'Blenes performed the surgery to fix Jonathon's heart. "Jonathon would have died within a short period of time without this surgery," Dr. O'Blenes says. "Now he has every chance of living a full and normal life."

The Hanlon's are overjoyed with Jonathon's recovery and progress. "He is feeding, growing and thriving," Natasha says. "We can hardly even see a scar. We can't say enough about the superb care we received at the IWK. They treated the whole family so well, it was phenomenal."

Just a few years ago, a child born with a condition like Jonathon's would not have survived. Research, however, has led to better ways of protecting infants' hearts during surgery. "This would be an impossibly risky operation without cardioplegic solutions, which temporarily stop the heart so we can operate," explains Dr. O'Blenes. He and his research colleagues at Dalhousie Medical School—cardiac surgeon Dr. Camille Hancock Friesen and pharmacologist Dr. Susan Howlett—aim to make such surgeries safer and more effective by improving how well cardioplegic solutions protect the heart.

"The better we can protect the heart during surgery, the lower the risk of death and the better the heart will work after surgery," Dr. O'Blenes says. "Our research will help not only infants needing surgery, but older people whose hearts are also so very fragile."