

HEALTH SCIENCES IN NORTHERN ONTARIO

The availability of health, medical research and educational facilities helps make Northern Ontario communities attractive places to live and work.



Northern Ontario has 41 hospitals, 68 long-term health care homes, 2 regional cancer centres, 20 community health centres and 2 Ontario Health teams. There are also 6 Aboriginal Health Access Centres operating in communities across the north. These centres offer culturally appropriate primary care to Aboriginal families and individuals. In addition to these, there are 3 telemedicine networks offering over 70 specialties and sub-specialties through a number of programs, including cardiology, dermatology and mental health services. ¹

There are partnership opportunities available through the hospitals, the telecommunications industry and post-secondary institutions with the Northern Ontario School of Medicine playing a central role.

Northern Ontario biotechnology has expanded rapidly in the last decade, resulting from industry-wide revenues, the launch of new companies, and continued diversification. Biotechnology is a growing sector in Northern Ontario. This growth is a reflection of Northern Ontario's leading-edge research, an entrepreneurial approach that emphasizes clusters and partnerships, and an established financing and venture capital base.

The results of this approach render the possibility of new drug development and a deeper, molecular understanding of the mechanisms of underlying disease. This lays the foundation of all medical application, diagnosis and treatment.

The Northern Ontario School of Medicine (NOSM)

NOSM is a pioneering faculty of medicine. A medical school for the whole of Northern Ontario, the School is a joint initiative of Lakehead University and Laurentian University with main campuses in Thunder Bay and Sudbury, and multiple teaching and research sites distributed across Northern Ontario. By educating skilled physicians and undertaking health research suited to community needs, NOSM has become a cornerstone of community health care and contribute to improving the health of people in Northern Ontario.



¹ Information provided by the Government of Ontario: Towards a Growth Plan for Northern Ontario: A Discussion Paper



Cancer Care

Northern Ontario's cancer care is world class. We continue to lead Ontario in cancer treatment, diagnostic, and surgical wait times areas and is rated highly in Canada for overall patient satisfaction. Our cancer care services span the northern region, with prevention, screening, diagnostics, education, in-patient and out-patient treatment, surgical treatment, and supportive and palliative care.

Northern Ontario has gained international recognition in the rapidly growing biotechnology sector and has established relationships with experts in fields that has aided in the development of Biomarker Discovery Platform, the multi-application molecular screening technology for the identification of cancer biomarkers.

DIAGNOSTIC CT IMAGING

Northern Ontario was the first in Canada to acquire the world's first intelligent SPECT technology, the Siemens Symbia T16 SPECT/CT nuclear medicine camera. Within cardiology, myocardial perfusion SPECT imaging has emerged as an efficient tool in evaluating patients with known and suspected coronary artery disease (CAD), allowing physicians to determine both morphology and physiology in one imaging session. Northern Ontario Health Science Centre was also one of the first facilities in Ontario to go digital through the Picture Archiving and Communication System (PACS). This allows for the transfer of digital imaging across secure internet connections.

DNA

Northern Ontario is home to the only privately-run company in Canada that is accredited to perform Mt-DNA testing. Mt-DNA can determine identity, ethnicity, and genealogical relationships from a wide range of biological materials including blood, saliva, bone, teeth and shed hair.



Northern Ontario is a leader in mitochondrial DNA research. By continually improving the methodology, sensitivity and detection methods for DNA examination can be applied to Forensic DNA analysis. Northern Ontario was first out of the gate to offer a training program in extraction, amplification, sequencing and analysis of ancient nucleic acids (aDNA).