



NEWFOUNDLAND AND LABRADOR
MEDICAL ASSOCIATION

FACT SHEET- Pediatric Endocrinology

Pediatric Endocrinology and Metabolism

- Pediatric endocrinology is a subspecialty of pediatrics that deals with hormone-related conditions and diseases in infants, children and adolescents.ⁱ
- Pediatric Endocrinologists treat disorders of the endocrine system (a collection of glands that produce hormones to regulate the body's rate of metabolism), including diabetes, metabolic and nutritional disorders, pituitary and thyroid diseasesⁱⁱ, as well as disorders of sexual differentiation and pubertal maturation, bone disease and a number of other congenital and heritable endocrine diseases.ⁱⁱⁱ

Diabetes

- An Ipsos Reid survey which polled 3,483 Canadians in June 2010, found that when asked to name their most pressing health issue, the number one answer was access to a doctor (9%), followed by diabetes and obesity tying for second place (5%).^{iv}
- Diabetes is a chronic condition that stems from the body's inability to produce and/or properly use insulin. The body needs insulin to use sugar as an energy source. Diabetes can lead to serious complications and premature death. However, if someone has diabetes, steps can be taken to control the disease and lower the risk of complications.^v
- **Type 1 diabetes** is the most severe form of diabetes, which is usually diagnosed in children and adolescents. It occurs when the pancreas is unable to produce insulin. It carries the constant threat of complications such as kidney failure, blindness, nerve damage, amputations, heart attack and stroke.^{vi} Managing Type 1 diabetes means living a very structured life and being dependent on injected insulin. People with Type 1 diabetes should always be prepared for serious high and low blood glucose reactions, which can be dangerous.^{vii}
- **Type 2 diabetes** occurs when the pancreas does not produce enough insulin or when the body does not effectively use the insulin that is produced. People are typically diagnosed with type 2 diabetes after the age of 40, although it is now being seen in adolescents and children at an alarming rate.
- The rise in incidence of Type 2 diabetes in adolescents appears to parallel the very worrisome rise in excess body weight and obesity.^{viii} Newfoundland and Labrador has the country's highest rate of combined overweight/obesity among children aged 2 to 17 years at 36% and is significantly above the national average of 26%.^{ix}



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Access and Wait Times

- Currently, there are two full time practice pediatric endocrinologists in the province, Dr. Tracey Bridger and Dr. Joseph Curtis. A third pediatric endocrinologist Dr. Ara Healey, is providing a locum for Dr. Leigh Newhook who is on sabbatical until September 2011.
- Diabetes patients are seen by a pediatric endocrinologist as soon as they are diagnosed as they can quickly become very sick. Following the initial diagnosis, wait times for non-urgent pediatric endocrinology patients is 4-6 months.
- Children and adolescents with diagnosed diabetes have about 5 times as many visits to specialists as those without diabetes.^x

Prevalence

- Newfoundland and Labrador is reported to have the highest incidence of childhood Type 1 diabetes in North America.^{xi}
- On average, at least one child or youth is diagnosed with diabetes every week in Newfoundland and Labrador alone.^{xii}
- According to most recent data, the prevalence of diabetes for those aged one to 19 in the province was 5.4 per 1,000 in 2005/06 and has been consistently higher than the national average.^{xiii}
- The prevalence of diabetes among children and youth also increases with age. In 2005/06, the prevalence of diabetes among persons aged 15 to 19 in Newfoundland and Labrador was 8 per 1,000 people.^{xiv}

Hospital Utilization

- In Newfoundland and Labrador, nearly all diabetes patients under the age of 18 are hospitalized at the time of diagnosis for the purpose of patient and family education.^{xv}
- Overall, the mean number of hospital days is seven times higher and the mean number of physician visits is over 1.5 times higher among those with diabetes compared to those patients without.^{xvi}



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Importance of Quality Care

- Many individuals with diabetes are unaware they have the disease, which can lead to serious health complications if untreated.^{xvii}
- Uncontrolled diabetes can cause numerous problems such as heart disease, kidney failure, never damage and blindness.^{xviii}
- In 2007, it was reported that rates of coexisting medical conditions were five to eleven times higher among diabetes patients in Newfoundland and Labrador than patients without the disease.^{xix}
- Diabetes significantly shortens life expectancy for all ages^{xx} and is a contributing factor in the deaths of approximately 41,500 Canadians each year.^{xxi}
- Life expectancy for people with type 1 diabetes may be shortened by as much as 15 years, while life expectancy for people with type 2 diabetes may be shortened by 5 to 10 years.^{xxii}
- Good diabetic care and effective disease management may help prevent or delay many of these health problems related to diabetes.^{xxiii} Predictors of good diabetic care include consultation with a medical doctor and access to a specialist. However, most people diagnosed with diabetes do not receive access to the care recommended by practice guidelines.^{xxiv}
- In 2007/08, less than half of the province's diabetic population aged 12 years and older met Canadian Diabetes Association guidelines for haemoglobin "A1C" measurements and annual foot examinations by a health professional.^{xxv}
- The serious complications of diabetes may be prevented or deferred if patients are able to manage their disease according to the best available medical advice. Therefore, it is critical that their efforts to avoid the serious diabetes related complications are supported through improved programs and medical services.^{xxvi}



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- ⁱ Metzger, Daniel, MD *Children and Endocrinology*, BC Endocrine Research Foundation, Newsletter Vol 3, No. 1: Spring Equinox, 2001.
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- ⁱⁱⁱ Fisher DA, *A short history of pediatric endocrinology in North America*, 2004 Apr;55(4):716-26. Epub 2004 Jan 22
- ^{iv} Canadian Medical Association, *10th Annual National Report Card on Health Care*, August 2010.
- ^v Public Health Agency of Canada *Report from the National Diabetes Surveillance System: Diabetes in Canada*, 2009
- ^{vi} Public Health Agency of Canada, *Diabetes in Canada – Facts and Figures*, 2008.
- ^{vii} Public Health Agency of Canada, National Diabetes Fact Sheets, *Living with Diabetes*, 2008
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- ^{ix} Statistics Canada / CCHS data, Health Weights for Healthy Kids, (House of Commons) report 2007.
- ^x Public Health Agency of Canada *Report from the National Diabetes Surveillance System: Diabetes in Canada*, 2009
- ^{xi} Newfoundland and Labrador Centre for Health Information, Fast Facts, Diabetes in Children and Youth, November 2008.
- ^{xii} Ibid.
- ^{xiii} Ibid.
- ^{xiv} Ibid.
- ^{xv} Ibid.
- ^{xvi} Ibid.
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- ^{xviii} Government of Newfoundland and Labrador, *Health Reflections Newfoundland and Labrador*, 2008.
- ^{xix} Newfoundland and Labrador Centre for Health Information, Fast Facts, *Diabetes*, November 2007.
- ^{xx} Public Health Agency of Canada *Report from the National Diabetes Surveillance System: Diabetes in Canada*, 2009
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- ^{xxii} Ibid.
- ^{xxiii} Public Health Agency of Canada *Report from the National Diabetes Surveillance System: Diabetes in Canada*, 2009
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- ^{xxv} Newfoundland and Labrador Centre for Health Information, *Survey Says: A Report on Health Indicators from the Canadian Community Health Survey, 2000/01-2007/08*, Research and Evaluation Department, September 2010.
- ^{xxvi} The Canadian Diabetes Association and Diabète Québec, *Diabetes Progress Report 2005*, 2005.