### **HEALTHY BABIES**



#### Breastfeeding And Long Term Health Benefits

It has long been recognized that early nutrition has a life long impact on the health of an individual. A substantial body of research, and an Expert Consultation commissioned by the World Health Organization, have determined that:

- exclusively breastfeeding an infant from birth with the addition of nutritious complementary foods at six months and continued breastfeeding to the age of two years or beyond, confers optimal nutrition for infants and young children,
- exclusively breastfeeding confers benefits well beyond early childhood,
- infants who are not breastfed and artificially fed with breastmilk substitutes experience increased risks of a wide range of both infectious and chronic illnesses.

Breastfed Children: Experience:	What the Researchers Say:	References:
Reduced risk of asthma Approximately 5 to 10 percent of Canadian adults suffer from asthma. As many as 20 percent of Canadian children have asthma.	The risk of asthma and wheezing was reduced by approximately 50 percent when infants were breastfed for nine months or longer. The longer the duration of breastfeeding, the greater the protection against the	Dell S, and To T. Breastfeeding and Asthma in Young Children. Arch Pediatr Adolesc Med 155: 1261-1265, 2001

development of asthma.

## Reduced risk of cardiovascular disease

Cardiovascular disease is the leading cause of death of over one-third of Canadians.

About 26 per cent of men and 18 per cent of women are reported to have high blood pressure.

Breastmilk consumption in children born prematurely was associated with lower blood pressure in later life. Blood pressure measurements were lower in children aged 13-16 years old who were fed banked human milk during infancy. Singhal A, Cole TJ, Lucas A. Early nutrition in preterm infants and later blood pressure: two cohorts after randomized trials.
The Lancet 357: 413-419, 2001

#### Reduced risk of obesity

Approximately 29 per cent of the adult Canadian population is obese and more than 50 per cent are overweight. Breastfeeding significantly reduces thelikelihood of overweight and obesity and associated health risks.

Children who were almost exclusively breastfed for the first six months were 22 percent less likely to become overweight as adolescents.

Gillman M. W. et al. Risk of overweight among adolescents who were breastfed as infants.
JAMA 285: 2461-2467, 2001

#### Reduced risk of diabetes

Both adult onset diabetes (Type 2) and juvenile onset diabetes (Type 1) are influenced by infant and young child nutrition. The prevalence of diabetes in Canada is about 3 per cent of the total population over 15 years of age. The rate among Native and Inuit populations is about 3.3 times higher for men and 5.5 times higher for women.

Early oral exposure to cow's milk protein induces an insulin immune response. In diabetes-prone children this can increase risk of Type 1 diabetes.

Exclusive breastfeeding for at least two months is associated with a lower rate of Type 2 diabetes.

Vaarala, O et al. Cow's Milk Formula Feeding Induces Primary Immunization to Insulin in Infants at Genetic Risk for Type 1 Diabetes. Diabetes 48: 1389-1394, 1999

Pettitt, D.J. et al. *Breastfeeding and incidence of non-insulin-dependent diabetes mellitus in Pima Indians.*The Lancet 350: 166-168,1997

# Reduced risk of Sudden Infant Death

The number of SIDS deaths has fallen steadily since the late 1980s – from 385 in 1989 to 138 in 1999. Recommended strategies for reducing the incidence – prone sleeping position, no smoking and breastfeeding – are considered to be contributing to the reduced incidence.

SIDS cases were associated with lower socioeconomic status, maternal smoking after birth, bottle-feeding and thumb sucking. Hoir, M.P. et al. Sudden unexpected death in infancy: epidemiologically determined risk factors related to pathological classification.

Acta Pediatr 87: 1279-1287, 1998

Lindgren, C. et al. Sleeping position, breastfeeding, bed-sharing and passive smoking in 3-month old Swedish infants. Acta Pediatr 87: 1028-1032, 1998

### Improved cognitive ability

The loss of even one IQ point per person spread over a population has vast economic consequences for a nation.

Children who had received their mother's milk had an 8.3 point advantage in IQ scores. Research shows a dose relationship between the amount of breastmilk fed and the subsequent IQ outcomes. It concludes that breastmilk itself confers substantial advantages for cognitive development.

Lucas, A. et al. *Breast milk and subsequent intelligence quotient in children born premature.*Lancet 339: 261-264, 1992

Horwood, L.J. and Ferguson, D.M. *Breastfeeding and later cognitive development and academic outcomes.* Lancet 339: 261-264, 1992

