

THE IMPORTANCE OF BREASTFEEDING

Breastfeeding Reduces Obesity



Formula fed infants consume larger volumes and gain weight more rapidly than breastfed infants, with the increased weight predominately adipose tissue. The breastfed infant gains predominately more lean body mass. ⁽⁵⁾

Research shows rapid weight gain during infancy is associated with childhood obesity. ⁽⁵⁾ At 1 year of age breastfed infants are on average 1.5 lbs lighter than formula fed infants. ⁽⁴⁾

And mom benefits too! Breastfeeding mothers showed significantly larger reductions in hip circumference and more fat loss by one month postpartum when compared with formula-feeding moms. Lactation improves maternal glucose metabolism. ^(24,25)

Breastmilk contains the hormones, leptin and adiponectin, which help infants regulate appetite and energy metabolism. Formula is missing these hormones. ⁽¹²⁾

Children never breastfed or those breastfed for less than 12 months are at greater risk for diabetes mellitus (Type 1 and Type 2), overweight and obesity) ⁽¹⁰⁾

Curbing Childhood Obesity: a Federal, Provincial and Territorial Framework for Action to Promote Healthy Weights, Our Health, Our Future, Health Canada, 2010 Notes one key strategy as “the provision of Baby-Friendly health settings”.

Bibliography

1. Adair, LS (2009) Methods Appropriate for Studying the Relationship of Breast-feeding to Obesity, *J Nutr* 139(2):408S-11S, 2009
2. Canadian Institute of Child Health (2004) Improving the Health of Canadians, (2004) Chapter 5: Obesity, Breastfeeding is listed among 5 strategies to reduce obesity, 2004
3. Chapman, DJ (2007) Breastfeeding and Type 2 Diabetes: Is There a Protective Effect of Breastfeeding? *J Human Lact* 23(2):206-7, 2007
4. Dewey, K.G., Heinig, M.J., Nommsen, L.A., Peerson, J.M., & Lonnerdal, B. (1992). Growth of breast-fed and formula-fed infants from 0 to 18 months: The DARLING Study. *Pediatrics*, 89(6 Pt 1), 1035-1041.
5. Dewey KG. Is breastfeeding protective against child obesity? *J Hum Lact*. 2003;19(1):9-18.
6. Feig, DS et al (2010) Breastfeeding predicts the risk of childhood obesity in a multi-ethnic cohort of women with diabetes, *J Matern Fetal Neonatal Med* 2010 Jul 7 (epub ahead of print)
7. Gillman, MW, et al (2006). Breast-Feeding and Overweight in Adolescence. *Epidemiology* 17(1): 112-114, 2006
8. Griffiths, LJ et al (2008) Effects of infant feeding practice on weight gain from birth to 3 years. *Arch Dis Child*, Nov 2008
9. Grummer-Strawn, LM & Mei, Z (2004) Does Breastfeeding Protect Against Pediatric Overweight? Analysis of Longitudinal Data from the Centers of Disease Control and Prevention Pediatric Nutrition Surveillance System, *Pediatrics* 113(2): e81-86, 2004.
10. Ip, S., Chung, M., Raman, G., Chew, P., Magula, N., DeVine, D., et al (2007). Breastfeeding and maternal and infant health outcomes in developed countries. Evidence Report/ Technology Assessment (Full Rep), (153), 1-186.
11. Harder, T et al (2005) Duration of Breastfeeding and Risk of Overweight: A Meta-analysis, *Al J Epidemiol* 162:397-403, 2005.
12. Li, R et al (2008) Association of breastfeeding intensity and bottle-emptying behaviors at early infancy with infants' risk for excess weight at late infancy, *Pediatrics*. 2008 Oct;122 Suppl 2:577-84.
13. Mayer-Davis E et al (2006) Breastfeeding and Risk for Childhood Obesity: Does Maternal Diabetes or Obesity Status Matter? *Diabetes Care*, 29:2231-2237, 2006.
14. Metzger MW, McDade TW. (2009) Breastfeeding as obesity prevention in the United States: A sibling difference model, *Am J Hum Biol*. 2009
15. Mirelles, O et al (2006) A Physiological Role of Breastmilk Leptin in Body Weight Control in Developing Infants, *Obesity* 8:1371-1377, 2006
16. Owen, CG et al (2006) Does Breastfeeding Influence Risk of Type 2 Diabetes in Later Life? A Quantitative Analysis of Published Evidence, *Am J Clin Nutr* 85:1043-1054, 2006.
17. Rosenbauer, J, Herzig, P, Giani, G (2007) Early infant feeding and risk of type 1 diabetes mellitus-a nationwide population-based case-control study in pre-school children, *Diabetes Metab Res Rev* Oct 29
18. Sherburne Hawkins S, Cole TJ, Law C (2008) An ecological systems approach to examining risk factors for early childhood overweight: findings from the UK Millennium Cohort Study. *J. Epidemiol. Community Health* published online 18 Sep 2008; 10.1136/jech.2008.077917, 2008
19. Swartz, EB et al (2010) Lactation and maternal risk of type 2 diabetes: a population-based study, *Am J Med* 123(9):863, Sept 2010
20. Twellis, L, Newbook, LA (2010) Can exclusive breastfeeding reduce the likelihood of childhood obesity in some regions of Canada? *Can J Public Health* 101:36-39, 2010
21. US Breastfeeding Committee (2010) Position Paper on Breastfeeding as a Critical Strategy for Obesity Prevention <http://www.usbreastfeeding.org/LinkClick.aspx?link=Position-Statements%2fObesity-Statement-Rev-2010-USBC.pdf&tabid=70&mid=393>
22. Young, TK, Martens, PJ et al (2002) Type 2 Diabetes Mellitus in Children: Prenatal and Early Infancy Risk Factors Among Native Canadians, *Arch Pediatr Adolesc Med* 156:651-655, 2002.
23. Weyermann, M., D. Rothenbacher, and H. Brenner (2006) Duration of Breastfeeding and Risk of Overweight in Childhood: A Prospective Birth Cohort Study from Germany. *Int J Obes (Lond)*, 2006.
24. Baker, JI, Gamborg, M, Heitmann, BL, Lissner, L, Sorensen, TI, Rasmussen, KM, Breastfeeding reduces postpartum weight retention, *Am J Clin Nutr* 2008, 88(6): 1543-51.
25. Swartz, EB et al Lactation and maternal risk of type 2 diabetes: a population-based study, *Am J Med* 123(9):863, Sept 2010

Nutrition Facts		
Per 1000 ml ⁽¹⁾		
Amount	100 % daily value	
Calories	670	100%
Fat	40 g	100%
Unsaturated	22.8 g	
Saturated	16.8 g	
+ Trans	0 g	
Cholesterol ⁽²⁾	0.12 g	100%
Sodium	0.15 g	100%
Carbohydrate	70 g	100%
Fibre	0 g	
Lactose	70 g	
Protein	18 g	100%
Vitamin A 100% Vitamin C 100%		
Calcium 100% Iron 100%		
Vitamin E 100% Immunity 100%		
<small>From: Constituents of human milk, United Nations University Centre ⁽¹⁾ average amount of breastmilk consumed per day for a baby at 6 mo. Riordan J. Breastfeeding and Human Lactation, 2005. P 100 ⁽²⁾ Stricker T, Breegger C. P. Journal of Pediatric Gastroenterology & Nutrition: 5(42);2006: p 591</small>		