

Breastfeeding has key health benefits for infants as well as mothers. For the infant, the benefits of breastfeeding are seen to not only have short term nutritional and immunological benefits, but also long term benefits. For the mother, breastfeeding can play a role in the maternal metabolism and may reduce the risk of breast and ovarian cancer.

BREASTFEEDING HAS KEY HEALTH BENEFITS FOR INFANTS, BOTH SHORT AND LONG TERM, AND CAN HAVE POSITIVE HEALTH CONSEQUENCES FOR THE MOTHER

SHORT TERM EFFECTS FOR INFANTS

Scientific studies show that breastfeeding has important immediate benefits for the infant, as for example it may reduce the risk of developing *gastrointestinal and respiratory infections* [1-5]. These effects are caused by anti-pathogenic substances and other immunological properties of human milk, avoidance of contamination (possible in non-human milk, baby bottles,





water and other foods), and the general nutritional status of breastfed infants [1-5]. Breastfeeding can be a life saver for infants and is the most important (and cost-effective) intervention for controlling diarrhoea among children. Diarrhoea still remains one of the leading causes of death amongst children under five years of age [1-5]. Additionally, breastfeeding might protect against atopic diseases [6].

LONG TERM EFFECTS FOR INFANTS

Breastfeeding has been shown to confer long term benefits as well. It has been suggested that breastfeeding could prevent the development of overweight/obesity, not only in childhood, but also in later life. Studies show that protein intake and energy metabolism are lower amongst breastfed infants as compared to formula fed infants [7,8]. Because of varying results, however, expert opinions remain divided on the role of breastfeeding in late-onset obesity. Available evidence suggests that breastfeeding is associated with lower total cholesterol, and a reduced prevalence of type-2 diabetes [9]. Finally, some studies suggest positive associations between breastfeeding and performance in *intelligence tests* [8,10].

Breastfeeding may reduce the risk of

infections, high blood pressure, high cholesterol and the reduces prevalence of diabetes [1–5,9]

.

HEALTH CONSEQUENCES FOR MOTHERS

Breastfeeding can positively affect some aspects of maternal health. Studies show that breastfeeding reduces the risk of both *breast and ovarian cancer* [11,12,13]. Additionally, breastfeeding might positively influence the mother's *metabolic health* and reduce the risk of type-2 diabetes, hypertension, hyperlipidemia and cardiovascular disease [11,14]. Some studies suggest a role for breastfeeding in maternal *weight control* [15,16]. Another important aspect for maternal health, particularly from the perspective of developing countries, is *lactational amenorrhoea*: breastfeeding increases birth spacing by reducing the chance of getting pregnant



in the 6 months following the birth [17,18]. Additionally, *mental health* may positively be influenced by breastfeeding, including reduced rates of postpartum depression [19,20,21].

References

- 1 Horta et al. (2013) Food & Nutrition Research 57: 20823.
- 2 Lamberti et al. (2011) BMC public health; 11 Suppl 3: S15.
- 3 Rebhan *et al.* (2009) Acta Pædiatrica; 98(6): 974-80.
- 4 Agostoni et al. (2009) J Pediatr Gastroenterol Nutr; 49(1): 112-25.
- 5 Michaelsen *et al.* (2008) Gesundheitswesen; 70(S1): S20-S1.
- 6 WHO. (2001) Optimal duration of exclusive breastfeeding (Review).
- 7 Gluckman *et al.* (2008) N Engl J Med 359, 61–73.
- 8 Horta et al. (2013) Food & Nutrition Research 57: 20823.
- 9 WHO. (2007) Implementing the Global Strategy for Infant and Young Child Feeding: Geneva, 3-5 February 2003.
- 10 Victora et al. (2013) The Lancet Global Health; 3(4): e199-e205.
- 11 Stuebe *et al.* (2009) Journal of Perinatology, 30(3), 155-162.

- 12 Collaborative Group on Hormonal Factors in Breast Cancer. (2002) Lancet; 360(9328): 187-95.
- 13 Luan et al. (2013) Am J Clin Nutr; 98(4): 1020-31.
- 14 Chouwdhury Acta Paediatr. (2015)
- 15 Wiklund et al. (2012) Public Health Nutrition 15:67-74.
- 16 McClure et al. (2011) Obesity (Siver Spring). 19:2205-13.
- 17 WHO. (1998) Fertility and Sterility; 70(3): 461-71.
- 18 WHO. (1999) Fertility and Sterility; 72(3): 431-40.
- 19 Dias et al. (2015) Journal of Affective Disorders; 171: 142-54.
- 20 Susman et al. (1988) American Journal of Psychiatry; 145(4): 498-501.
- 21 Brunton et al. (2008) J Neuroendocrinol; 20(6): 764-76.

