Breastfeeding reduces health inequalities - Children from less favourable social circumstances who receive breastmilk and who experience later introduction to solid food have health outcomes that are similar to or better than the health outcomes of more affluent children who receive formula milk and early introduction of solid food.

Professor Stewart Forsyth, Consultant Paediatrician, studied 543 children and their parents from lower and higher socio-economic groups. Health outcomes studied were gastroenteritis, respiratory illness and ear infections up to one year of age, and blood pressure, respiratory illness and body composition at seven years. (1)

In the lower socio-economic group the outcome for the breastfed children was similar to or significantly better than the formula fed group in the higher social class category. This was evident for each of the health outcome measures.

Respiratory illness
The probability of respiratory illness occurring at any time in childhood is significantly reduced if a child is exclusively breastfed and receives no solid food before 15 weeks. (2)

One month of exclusive breastfeeding conferred protection against allergic food intolerance and respiratory allergens. Protection was evident in children up to 17 years. (3)

Babies fed milk other than breastmilk before four months of age are at significantly increased risk of asthma. (4)

Cardiovascular disease and risk factors in later life
Formula fed infants have a prevalence of obesity of 4.5% at age 5 and 6 years, compared with a prevalence of 2.8% in breastfed children. (5)

Children who have been exclusively breastfed during the first ten days of life had healthier lipid profiles and glucose tolerance at age 50. (6)

Breastfeeding is associated with lower systolic blood pressure at age 7. Because blood pressure tracks from childhood to adult life with amplification of early differences, the blood pressure difference is likely to be substantially greater in adult life. (7)

In a non-hypertensive population the potential benefit of breastfeeding is greater than the benefit from all other non-pharmacological interventions, such as weight loss, salt restriction or exercise. (8)

Adolescents who were born premature and who were fed breastmilk in infancy have a 14% reduction on their ratio of LDL to HDL cholesterol. A dose response relationship was found. (9)

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**Infectious disease**
Formula feeding is associated with increased incidence of lower respiratory tract infection, otitis media, gastroenteritis and urinary tract infection. The protective effect of breastfeeding extends beyond the period of breastfeeding. (10, 11)

**Diabetes**
The relative risk of a child developing non-insulin dependent diabetes if they are formula fed is 2.4 times that of a breastfed child. (12)

**Obesity**
The American Academy of Paediatrics issued a policy statement on ‘Prevention of Paediatric Obesity’ (see www.aap.org). It identifies lack of breastfeeding as one of the risk factors for obesity and recommends the support, encouragement and protection of breastfeeding as a preventative measure.

Babies who are breastfed for at least a year are leaner than those weaned earlier. Babies who have never been breastfed are more likely to become overweight. (13)

A meta-analysis on existing studies on duration of breastfeeding and risk of overweight strongly supports a dose dependent association between longer duration of breastfeeding and decrease in risk of overweight. (14)

**Cognitive development**
A study has found that in the presence of a particular gene in the child (FADS2), breastfeeding can raise IQ by an average of seven points. FADS2 is involved in the way the body processes fatty acids in the diet and has two genotypes – C and G. 90% of the population carry the C version which is associated with better IQ scores in breastfed children. The outcomes in the 10% who carry the G version were made no worse by breastfeeding. (15)

Formula feeding is associated with significantly lower scores for cognitive development than is breastfeeding after adjusting for appropriate co-factors. Differences were greater for low birth weight babies and increased with increased duration of breastfeeding. (16)

Cognitive effects of breastfeeding are thought to be due to the presence of long chain polyunsaturated fatty acids (LCPUFAS) in breastmilk. Newborns cannot synthesise LCPUFAS which are necessary for optimum development of neural tissue. The addition of LCPUFAS to formula milk has not been shown to have an enhancing effect on the IQ of preterm infants. (17)

**Developmental delay**
Breastfeeding is associated with reduced risk of developmental delay at nine months of age. This effect is not due to advantaged social position or parenting style. (18)

**Maternal health**
The relative risk of breast cancer is reduced by 4.3% for every 12 months of breastfeeding. Having been breastfed is associated with a lower risk of pre-and post-menopausal breast cancer. (19)
Breastfeeding Information for GPs and Pharmacists

References


The Evidence for Breastfeeding