Risks of Formula Feeding

A BRIEF ANNOTATED BIBLIOGRAPHY

The International Code of Marketing of Breastmilk Substitutes requires that parents be informed about the health hazards of unnecessary or improper use of infant formula. This brief annotated bibliography from INFACT Canada gives some examples from the extensive body of research documenting the importance of breastfeeding and in turn the associated risks of formula feeding. The World Health Organisation (WHO) recommends exclusive breastfeeding for six months and introducing nutritious complementary foods at six months and continued breastfeeding for two years and beyond.

FOR INFANT AND CHILDREN

1. Increased risk of asthma
2. Increased risk of allergy
3. Reduced cognitive development
4. Increased risk of acute respiratory disease
5. Increased altered occlusion
6. Increased risk for infection from contaminated formula
7. Increased risk of nutrient deficiencies
8. Increased risk of childhood cancers
9. Increased risk of chronic diseases
10. Increased risk of diabetes
11. Increased risk of cardiovascular disease
12. Increased risk of obesity
13. Increased risk of gastrointestinal infections
14. Increased risk of mortality
15. Increased risk of otitis media and ear infections
16. Increased risk of side effects of environmental contaminants

FOR MOTHERS

1. Increased risk of breast cancer
2. Increased risk of overweight
3. Increased risk of ovarian cancer and endometrial cancer
4. Increased risk of osteoporosis
5. Reduced natural child spacing
6. Increased risk of rheumatoid arthritis
7. Increased risk of stress and anxiety
8. Increased risk of maternal diabetes

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FOR INFANT AND CHILDREN

INCREASED RISK OF ASTHMA

1

A study of 2184 children done by the Hospital for Sick Children in Toronto determined that the risk of asthma and wheeze was approximately 50 per cent higher when infants were formula-fed compared to infants who were breastfed for nine months or longer.

Dell S, To T. Breastfeeding and Asthma in Young Children. Arch Pediatr Adolesc Med 155: 1261-1265, 2001

Researchers in West Australia studied 2602 children to determine the development of asthma and wheeze at six years of age. Not breastfeeding increased the risk of asthma and wheeze by 40 per cent compared to infants who were exclusively breastfed for four months. The authors recommend exclusive breastfeeding for at least four months to reduce the risk of asthma.

Oddy WH, Peat JK, de Klerk NH. Maternal asthma, infant feeding, and the risk for asthma in childhood. J. Allergy Clin Immunol. 110: 65-67, 2002

The reviewers looked at 29 studies to evaluate the protective effect of breastfeeding on asthma and atopy. After applying strict criteria for assessment, 15 studies remained in the review. All 15 showed a protective effect of breastfeeding. They concluded that the evidence is clear and consistent that not breastfeeding puts infants at risk for asthma and atopy.

Oddy WH, Peat JK. Breastfeeding, Asthma and Atopic Disease: An Epidemiological Review of Literature. J Hum Lact 19: 250-261, 2003

A longitudinal prospective study of 1246 healthy infants in Arizona, USA, aimed to determine the relationship between breastfeeding and recurrent wheeze. The results showed that non-atopic children at the age of six years, who had not been breastfed, were three times more likely to have recurrent wheezing.

Wright AL, Holberg CJ, Taussig LM, Martinez FD. Relationship of infant feeding to recurrent wheezing at age 6 years. Arch Pediatr Adolesc Med 149: 758-763, 1995

INCREASED RISK OF ALLERGY

2

Children in Finland who had been breastfed the longest had the lowest incidence of atopy, eczema, food allergy and respiratory allergy. At 17 years of age, the incidence of respiratory allergy for those who had little breastfeeding was 65 per cent and for those who were breastfed the longest 42 per cent.

Saarinen UM, Kajosarri M. Breastfeeding as a prophylactic against atopic disease: Prospective follow-up study until 17 years old. Lancet 346: 1065-1069, 1995

Infant with a maternal history of respiratory allergy or asthma were assessed for atopic dermatitis during the first year of life. Seventy-six Dutch children and 228 children without atopic dermatitis were examined. Exclusive breastfeeding for the first three months of life was found to have a protective effect against dermatitis.

Kerkhof M, Koopman LP, van Strien RT, et al. Risk factors for atopic dermatitis in infants at high risk of allergy: The PIAMA study. Clin Exp Allergy 33: 1336-1341, 2003

The effects of maternal dietary vitamins C and E on breastmilk antioxidant composition to protect against the development of atopy in infants were assessed. Mothers with atopic disease kept four-day food records and breastmilk samples were collected at the infants' age of 1 mo.

Results showed that maternal intake of vitamin C in her diet but not as a supplement determined the concentration of vitamin C in breastmilk. A higher concentration of vitamin C in