

Dangers of Infant Formula

Breastfeeding top the list of effective preventive interventions for child survival. Together with appropriate complementary feeding these have more impact even then immunization, safe water and sanitation. There is no food more locally produced, affordable and sustainable than breast milk. Breastfeeding reduces the risk of diarrhea, chest infections (the biggest killer of children) and non-communicable diseases (NCDs) such as diabetes, obesity, cardiovascular disease and cancers. It is also an important in child spacing for the millions of women who have no access to modern forms of contraception.

Twenty one dangers of Infant formula:

Risks for Infants:

Asthma: incidence of asthma increases with formula feeding. Exclusive breastfeeding provides protection in early childhood up to age 6.¹**Allergy:** Although the interaction with exposure to allergens and development of allergies is complex, unlike of formula feeding exclusive breastfeeding appear to provide some protection in development of allergies in infants, regardless of familial history of allergy².**Ear infections:** Infants feed formula during the first 6 months of life have more ear infections³.**High blood pressure& Heart Disease:**Small – for-gestation and normal-weight infants who gained weight quickly on formula had higher risk of developing hypertension later in life than did breastfed infants. Additionally, although the physiological /biological mechanisms underlying measurable cardiovascular differences are unclear, infants receiving formula diets have poorer micro vascular function as teenagers⁴.**Respiratory Infections:**Formula fed infants suffer more frequently and more severely fromrespiratory infections, both viral and bacterial.⁵**Reduced IQ & Cognitive Development:** Formula fed infants consistently score lower on IQ and cognitive test, even when study results are controlled for all possible socioeconomic confounders⁶.**Obesity:** Formula feeding in infancy is associated with increased incidence of childhood and adolescent obesity, and higher BMI in adults⁷. **Iron-Deficiency Anaemia:**

Formula fed infants have higher rates of iron-deficiency anaemia due to low bioavailability of ferrous sulfate in cows milk based formulas⁸.**SIDS(Sudden Infant Death Syndrome):** Formula feeding increases the risk of dying from SIDS up to 50% throughout the first year of life. **Diabetes (both types 1&2):** Formula fed infants have greater risk for developing both type1 and type2 Diabetes irrespective of parents Diabetic status. Additionally when mother has gestational type1 and type2 diabetes. **Digestive problems:** Diarrheal disease is twice as high in formula fed infants, in both industrialized and resource dependent countries, and the increased risk of diarrheal disease when formula fed extends through the first 2 years of life. Infants fed formula have greater chance of developing Crohn's disease and ulcerative colitis in adulthood. **Childhood Cancers:** Formula fed infants are at greater risk for developing childhood cancers, and the benefits of breastfeeding are dose-dependent, increasing with length of duration and exclusivity. **Exposure to Environmental Contaminants:** When exposed to contaminants in utero, children who are subsequently formula fed perform poorer on neurological tests up to 9 years of age compared to similarly exposed breastfed children. **Sleep Apnea:** Formula fed infants are at higher risk for developing sleep disordered breathing problems. **Dental problems requiring orthodontia:** Formula fed children have a significantly higher chance of having dental malocclusions, (particularly anterior overbite and cross bite problems).

Risks for Mothers:

Diabetes: Compared to women who do not have children, women who give birth but do not breastfeed their children have a significantly higher incidence (14%) of developing type-2 diabetes than women who breastfeed.⁹**Overweight & Obesity:** Formula feeding mothers retain their pregnancy weight longer and are at risk to keep weight gain between pregnancies.¹⁰ **Osteoporosis:** Formula feeding mothers are at greater risk to experience hip fractures and other problems related to osteoporosis in the postmenopausal period.

Breast Cancer, Ovarian Cancer & Uterine Cancer: Formula feeding mothers have increased risk of developing breast ovarian and uterine cancers later in life. Hypertension & Cardiovascular diseases: Formula feeding mothers have higher BP levels in the initial postpartum period. They are also at increased risk to develop hypertension, hyperlipidemia and cardiovascular disease later in life. Reduced Natural Child Spacing: Formula feeding mothers are at increased risk of having less space between pregnancies, thereby placing both mother and children (already living as well as future pregnancies) at increased risk of mortality, morbidity and malnutrition.

(J Bangladesh Coll Phys Surg 2014; 32: 184-185)

Prof. Md. Ekhlasur Rahman

Head, Department of Pediatrics
Dhaka Medical College & Hospital

References:

1. Kim J, Ellwood. P & Asher, M. Diet and asthma: Looking back, moving forward. *Respiratory Research*, 2009; 10-49
2. Kramer M Breastfeeding and allergy: the evidence. *Annals of Nutrition & Metabolism*, 2011; 59(Suppl 1), 20-26
3. Abrahams. S & Labbok, M. Breastfeeding and otitis media: A review of recent evidence. *Current Allergy and Asthma Reports*, 2011; 11(6). 508-512
4. Khan, F. Green, F et al. The beneficial effects of breastfeeding on microvascular function in 11-14 years old children. *Vascular medicine*, 2009;14:137-142
5. Duijts L Jaddoe V, Hoffman A, Moll, H. Prolonged and exclusive breastfeeding reduces the risk of infectious diseases in infancy. *Pediatrics* 2010; 126(1), e18-e25.
6. Kramer M Aboud F et al. Breastfeeding and Child Cognitive Development *Archives of general Psychiatry* 2008;65(5), 578-584.
7. Bartok C, Ventura A. Mechanisms underlying the association between breastfeeding and obesity. *International Journal of Pediatric Obesity* 2009;4,196-204.
8. Raj S, Faridi M, Rusia U, Singh O: A prospective study of iron status in exclusively breastfed term infants up to 6 months of age. *International Breastfeeding Journal* 2008;3(3)
9. Liu B, Jorm L, Banks. E. Parity breastfeeding and the subsequent risk of maternal type 2 diabetes. *Diabetes Care* 2010; 33:1239-1241.
10. Baker J, Gamborg. M. et al. Breastfeeding reduces postpartum weight retention. *American Journal of Clinical Nutrition* 2008; 88(6). 1543-1551.