குழந்தைகளின் பால் மா தொடர்பான 21 அபாயங்கள்

குழந்தைகளின் பால் மா உற்பத்தி நிறுவனங்களினால் உங்களிற்கு வெளிப்படுத்தப்படாத அபாயங்கள்!

விழிப்பாக இருங்கள்!

உங்களுடைய குழந்தைக்கு: உங்களுடைய குழந்தைக்கு பால்மாவினை வழங்கும் போது, குழந்தைக்கு கீழ்வருவன ஏற்படுவதற்கான சந்தர்ப்பங்களினை நீங்கள் அதிகரிக்கின்றீர்கள்

1) அஸ்துமா (தொய்வு / இழுப்பு)
2) ஒவ்வாமை
3) செவி தொடர்பான தொற்றுகள்
4) உயர் குருதியமுக்கம் மற்றும் இதய நோய்கள்
5) சுவாசத் தொற்றுகள்
6) குறைந்தளவிலான நுண்ணறிவு மற்றும் அறிவாற்றல் வளர்ச்சி
7) ஆதிக பருமன்
8) இரும்புக் குறைபாட்டுக் குருதிச்சோகை
9) SIDS (திடீர் சிசு இறப்பு)
10) சலரோகம்
11) சமிபாட்டுக் கோளாறுகள்
12) குழந்தைகள் புற்றுநோய்
13) சூழல் மாசுக்களிற்கு வெளிக்காட்டப்படல்
14) தூக்கத்தில் குறுகிய நேரம் மூச்சுநிற்றல்
15) பற்கள் தொடர்பான கோளாறுகள் & தாடைகளின் ஒழுங்கின்மை

தாயிற்கு: நீங்கள் தாய்ப்பால் ஊட்டாவிடில் உங்களிற்கு கீழ்வருவன ஏற்படுவதற்கான சந்தர்ப்பங்கள் அதிகரிக்கின்றன

16) சலரோகம்
17) அதிக நிறை மற்றும் அதிக பருமன்
18) என்புருக்கிநோய்
19) மார்பகப் புற்றுநோய், சூலகப் புற்று நோய் மற்றும் கருப்பை புற்றுநோய
20) உயர் குருதியமுக்கம், இதய மற்றும் குருதிக் கலன் நோய்
21) குழந்தைகளிற்கிடையிலான இடைவெளி குறைவடைதல்

குறிப்பு:-World Alliance for Breastfeeding Action (WABA) இனால் தயாரிக்கப்பட்ட இவ் இதழ் சான்றுபடுத்தப்பட்ட ஆராய்ச்சியை அடிப்படையாக கொண்டது.

World Alliance for Breastfeeding Action

Ministry of Health, Nutrition & Indigenous Medicine

Family Health Bureau

References:

Formula Risks for Infants:

1) **Asthma:** Exclusive BF provides protection in early childhood up to age 6.[Kim, J., Ellwood, P., & Asher, M. (2009). Diet and asthma: Looking back,moving forward. *Respiratory Research*, *10*(49), doi: 10.1186/1465-9921-10-49; Silvers, K., Frampton, C., et al. (2009). Breastfeeding protects againstadverse respiratory outcomes at 15 months of age. *Maternal and ChildNutrition*, *5*, 243-250. doi: 10.1111/j.1740-8709.2008.00169.x

2) **Allergy**: Although the interaction with exposure to allergens anddevelopment of allergies is complex, exclusive BF appears to provide someprotection in development of allergies in infants, regardless of familial historyof allergies.[Kramer, M. (2011). Breastfeeding and allergy: the evidence.*Annals of Nutrition and Metabolism,* 59(suppl 1), 20-26.: Prescott S, Nowak-Wegrzyn A, (2011). Strategies to prevent or reduce allergic disease.*Annals ofNutrition & Metabolism,* Vol. 59 (Suppl 1), 28-42]

3) **Ear Infections**: Infants fed formula during the first 6 months of life havemore ear infections [Abrahams, S. &Labbok, M. (2011). Breastfeeding andotitis media: A review of recent evidence. *Current Allergy and AsthmaReports,* 11(6), 508-512.]

4) **High blood pressure & Heart Disease:**: Small-for-gestation and normalweightinfants who gained weight quickly on formula had higher risk ofdeveloping hypertension later in life than did breastfed infants. Additionally,although the physiological/biological mechanisms underlying measurablecardiovascular differences are unclear, infants receiving formula diets havepoorer microvascular function as teenagers.[Khan, F., Green, F. et al. (2009).The beneficial effects of breastfeeding on microvascular function in 11-14-year-old children. *Vascular Medicine,*14:137-142.; Labayan, I., Ruiz, J. et al.(2012). Exclusive breastfeeding duration and cardiorespiratory fitness inchildren and adolescents.*The American Journal of Clinical Nutrition,* 95(2),498-505.;Vaag, A. (2009). Low birth weight and early weight gain in themetabolic syndrome: Consequences for infant nutrition. *International Journalof Gynecology and Obstetrics* 104(suppl 1) S32–S34]

5) **Respiratory Infections:** Formula fed infants suffer more frequently andmore severely from respiratory infections, both viral, and bacterial. [Duijts, L.,Jaddoe, V., Hofman, A. & Moll, H. (2010). Prolonged and exclusivebreastfeeding reduces the risk of infectious diseases in infancy. *Pediatrics,*126(1), *e*18-*e*25.: Roth, D., Caulfield, L., Ezzati, M., & Black, R.(2008). Acutelower respiratory infections in childhood: Opportunities for reducing the globalburden through nutritional interventions. *Bulletin of the World HealthOrganization,* 86(5), 356-364.]

6) **Reduced IQ & cognitive development:** Formula fed infants consistentlyscore lower on IQ and cognitive tests, even when study results are controlledfor all possible socioeconomic confounders. [Kramer, M., Aboud, F., et al.(2008) Breastfeeding and Child Cognitive Development.*Archives of GeneralPsychiatry,* 65(5), 578-584.; Quigley, M., Hockley, C. et al. (2012).Breastfeeding is associated with improved child cognitive development: Apopulation-based cohort study. *The Journal of Pediatrics,* 160(1), 25-32.;Jedrychowski, W., Perera, F., et al (2012).Effect of exclusive breastfeedingon the development of children's cognitive function in the Krakow prospectivebirth cohort study.*European Journal of Pediatrics,*171(1) 151-158.

7) **Obesity:** Formula feeding in infancy is associated with increased incidenceof childhood and adolescent obesity, and higher BMI in adults. [Bartok, C. &Ventura, A. (2009).Mechanisms underlying the association betweenbreastfeeding and obesity.*International Journal of Pediatric Obesity,* 4:196-204.; Metzger, M., and McDade,T. (2010). Breastfeeding as obesityprevention in the United States: A sibling difference model. *American Journalof Human Biology,* 22(3) 291-296.: Parikh, N, Hwang, S., et al. (2009).Breastfeeding in infancy and adult cardiovascular disease risk factors.*TheAmerican Journal of Medicine,* 122(7), 656-663.]

8) **Iron-Deficiency Anemia:** Formula-fed infants have higher rates of irondeficiencyanemia due to low bioavailability of ferrous sulfate in cows' milkbased formulas. [Raj, S., Faridi, M., Rusia, U., & Singh, O. (2008) Aprospective study of iron status in exclusively breastfed term infants up to 6months of age. *International Breastfeeding Journal,* 3(3)]

9) **SIDS (Sudden Infant Death Syndrome):** Formula feeding increases therisk of dying from SIDS by up to 50% throughout the first year of life.
[Vennemann, M., Bajanowski, T., et al. (2009) Does breastfeeding reduce therisk of Sudden Infant Death Syndrome? *Pediatrics,* 123(3),*e*406-*e*410]

10) **Diabetes (both types 1 & 2):** Formula fed infants have greater risk fordeveloping both type 1 and type 2 diabetes, irrespective of parents' diabeticstatus. Additionally, when mother has gestational, type 1 or type 2 diabetes,these risks are increased. [Owen, C., Martin, R., Whincup, P., Smith, G.,Cook, D. (2006). Does breastfeeding influence risk of type 2 diabetes in laterlife? A quantitative analysis of published evidence.*The American Journal ofClinical Nutrition,* 84(5), 1043-1054.; Gouveri, E., Papanas, N., Hatzitolios, A.I., Maltezos, E. (2011). Breastfeeding and Diabetes.*Current DiabetesReviews,* 7(2), 135-142.

11) **Digestive Problems:** Diarrheal disease is twice as high in formula fedinfants, in both industrialized and resource-dependent countries, and theincreased risk of diarrheal disease when formula fed extends through the first2 years of life. Infants fed formula have greater chance of developing Crohn'sDisease and ulcerative colitis in adulthood. [Lamberti, L., Fisher-Walker, C.,Noiman, A., Victora, C., & Black, R. (2011).Breastfeeding and the risk fordiarrhea morbidity and mortality.*BMC Public Health,* 11(suppl 3), S15-S27.:Ehlayel MS, Bener A, Abdulrahman HM.(2009). Protective effect ofbreastfeeding on diarrhea among children in a rapidly growing newlydeveloped society. *Turkish Journal of Pediatrics,*51: 527-533.: Klement, E.,Cohen, R., Boxman, J., Joseph, A. &Reif, S. (2004). Breastfeeding and risk ofinflammatory bowel disease: a systematic review with meta-analysis.*American Journal of Clinical Nutrition,*80(1),1342-1352.

12) **Childhood Cancers**: Formula fed infants are at greater risk fordeveloping childhood cancers, and the benefits of breastfeeding are dosedependent,increasing with length of duration and exclusivity. [Ortega-García,J., Ferrís-Tortajada, J,. et al (2008). Full breastfeeding and paediatric cancer.*Journal of Paediatrics and Child Health,* 44:10-13.: Guise, JM, Austin, D. &Morris, C. (2005). Review of case-control studies related to breastfeeding andreduced risk of childhood leukemia. *Pediatrics,* 116(5)*e*724-*e*731.]

13) **Exposure to Environmental Contaminants**: When exposed tocontaminants in utero, children who are subsequently formula-fed performpoorer on neurological tests up to 9 years of age compared to similarlyexposed breastfed children. [Ribas-Fito, N., Julvez, J., Torrent, M., Grimalt, J.,&Sunyer, J. (2007).Beneficial effects of breastfeeding on cognitionregardless of DDT concentrations at birth.*American Journal of Epidemiology,*166: 1198-1202.; Vreugedenhill, HJI, Van Zanten, G., Brocaar, M., Mulder,PGH, &Weisglas-Kuperus, N. (2004). Prenatal exposure to polychlorinatedbiphenyl and breastfeeding: Opposing effects on auditory P300 latencies in 9-year old Dutch children. *Developmental Medicine & Child Neurology,* 46: 398-405.]

14) **Sleep Apnea: F**ormula-fed infants are at higher risk for developingSleep-disordered breathing problems. [Montgomery-Downs, H., Crabtree, V.,Capdevila, O., &Goval, D. (2007). Infant-feeding methods and childhoodsleep-disordered breathing. *Pediatrics,*120 (5), 1030-1035; Shenghui, L.,Xinming, J., et al (2010). Habitual snoring in school-aged children:Environmental and biological predictors. *Respiratory Research,* 11:144.]

15) **Dental problems requiring orthodontia**: Formula fed children have asignificantly higher chance of having dental malocclusions, (particularlyanterior overbite and crossbite problems). [Romero, C., Scavone-Junior, H.,et al (2011).Breastfeeding and non-nutritive sucking patterns related to theprevalence of anterior open bite in primary dentition. *Journal of Applied OralScience,* 19(2), 161-168.; Sanchez-Molin, Carbo, J., et al. (2010).Comparative study of the craniofacial growth depending on the type oflactation received. *Journal of European Paediatric Dentistry,*11(2), 87-92.;Castro, C., Vianna, M. &Goncalves, A.(2011). Influence of duration ofbreastfeeding in the oral habits and malocclusion in children. *Journal ofEpidemiology and Community Health,*65(suppl1),A205.]

Risks for Mothers:

16) **Diabetes:** Compared to women who do not have children, women whogive birth but do not breastfeed their children have a significantly higherincidence (14%) of developing type 2 diabetes than women who breastfeed.[Liu, B., Jorm, L, & Banks, E.(2010). Parity, breastfeeding and the subsequentrisk of maternal type 2 diabetes.*Diabetes Care,*33:1239-1241.: Trout, K.,Averbuch, T., &Barowski, M. (2011). Promoting breastfeeding among obesewomen and women with gestational diabetes mellitus.*Current DiabetesReports,* 11(1), 7-12.]

17) **Overweight & Obesity**: Formula feeding mothers retain their pregnancyweight longer and are at risk to keep weight gain between pregnancies.[Baker, J., Gamborg, M. et al (2008). Breastfeeding reduces postpartumweight retention. *American Journal of Clinical Nutrition,* 88(6), 1543-1551;Okechukwa, A, Opke, E.,&Okolo, A.(2009). Exclusive breastfeeding andpostnatal changes in maternal anthropometry.*Nigerian Journal of ClinicalPractice,* 12(4),383-388.]

18) **Osteoporosis**: Formula feeding mothers are at greater risk toexperience hip fractures and other problems related to osteoporosis in thepostmenopausal period. [Huo, D., Lauderdale, D., and Li, L. (2003). Influenceof reproductive factors on hip fracture risk in Chinese women. *A JournalEstablished as a Result of Cooperation Between the European FoundationforOsteoporosis and the National Osteoporosis Foundation of the U.S.A.,* 14(8), 694-700.; Wiklund, P., Xu, L. et al.(2011). Lactation is associated withgreater maternal bone size and bone strength later in life. OsteoporosisInternational, published online 17 September, 2011]

19) **Breast cancer, Ovarian cancer & Uterine Cancer:** Formula feedingmothers have increased risk of developing breast, ovarian and uterine cancerslater in life.[Awatef, M., Olfa, G. et al. (2010). Breastfeeding reduces breastcancer risk: a case-control study in Tunisia. *Cancer Causes &Control,*21(3),393-397.; Jordan, J., Siskind, V. et al. (2010). Breastfeeding andrisk of epithelial ovarian cancer.*Cancer Causes & Control,* 21(1),109-116.Chiaffarino, F., Pelucchi, C, et al.(2005). Breastfeeding and the risk ofepithelial ovarian cancer in an Italian population.*Gynecologic Oncology,*98(2), 3-4-308.]

20) **Hypertension & Cardiovascular diseases:** Formula feeding mothershave higher BP levels in the initial postpartum period. They are also atincreased risk to develop hypertension, hyperlipidemia, and cardiovasculardisease later in life. [Steube, A. Schwartz, E. et al. (2011). Duration oflactation and incidence of maternal hypertension: A longitudinal cohort study.*American Journal of Epidemiology,*174(10),1147-1158.; Steube, A.M. andSchwartz, E.B. (2010). The risks and benefits of infant feeding practices forwomen and their children *Journal of Perinatology*, 30(3), pp.155-163.; Jonas,W., Nissen, E., Ransjo-Arvidson, A., Wiklung, I., Hendriksson, P., and Uvnas-Moberg, K.(2008). Short and long term decrease of blood pressure in women
during breastfeeding. *Breastfeeding Medicine: Official Journal of Academy ofBreastfeeding Medicine,* 3(2), 103-109.;

21) **Reduced Natural Child Spacing:** Formula feeding mothers are at
increased risk of having less space between pregnancies, thereby placingboth mother and children (already living as well as future pregnancies) atincreased risk of mortality, morbidity, and malnutrition. [Erenal, A. etal,(2010). A natural method for family planning: lactational amenorrheamethod. Ankara: GülhaneAskeri Tip Akademisi, 383-390.; Rutstein, SO.(2005). Effects of preceding **birth intervals** on neonatal, infant and under-fiveyears mortality and nutritional status in developing countries: evidence fromthe demographic and health surveys. *International Journal of Gynaecologyand Obstetrics,* 89(suppl 1), s7-24.]