

In-hospital formula supplementation deters breastfeeding

When mothers feed their newborn infants formula milk in the hospital, they are less likely to fully breastfeed in the second month of life and more likely to quit breastfeeding early, even if they had hoped to breastfeed longer, according to a study conducted by Professor Caroline Chantry and colleagues at UC Davis Children's Hospital, USA.

While previous studies have examined the relationship between formula milk use and breastfeeding, questions have been raised about whether mothers using formula milk are simply less committed to breastfeeding. The study, published online in *The Journal of Pediatrics*¹, only

included women who intended to exclusively breastfeed their babies for at least a week, meaning they did not plan to use formula milk in the hospital. The most prevalent reasons mothers cited for in-hospital formula supplementation were perceived insufficient milk supply (18%), signs of inadequate intake (16%) and poor latch or breastfeeding (14%).

Perhaps most significant, in-hospital formula milk feeding dramatically reduced the likelihood of later fully breastfeeding as well as *any* breastfeeding, even after adjusting for the strength of the mothers' intention to continue these practices. Early formula milk use nearly

doubled the likelihood of formula milk use from the first to the second month and nearly tripled the likelihood of ending all breastfeeding by the end of the second month.

The authors conclude that strategies should be sought to avoid unnecessary in-hospital formula supplementation and to support breastfeeding when in-hospital formula supplementation is unavoidable.

Reference

1. Chantry C.J., Dewey K.G., Pearson J.M. et al. In-hospital formula use increases early breastfeeding cessation among first-time mothers intending to exclusively breastfeed. *J Pediatr* 2014;doi:10.1016/j.jpeds.2013.12.035 [Epub ahead of print].

Caesarean babies are more likely to become overweight as adults

A systematic review and meta-analysis published in the journal *PLoS ONE*¹ has shown that the odds of being overweight or obese are 26% higher for adults born by caesarean section than those born by vaginal delivery.

The analysis – the largest to show a link between caesarean delivery and body mass index (BMI) in adulthood – found that the average BMI of adults born by caesarean section is around half a unit more than those born by vaginal delivery. The findings are based on combined data from 15 studies with over 38,000 participants.

Dr Matthew Hyde, one of the researchers, says: "There are plausible mechanisms by which caesarean delivery might influence later body weight. The types of healthy bacteria in the gut differ in babies born by caesarean and vaginal delivery, which can have broad effects on health. Also, the compression of the baby during vaginal birth appears to influence which genes are switched on, and this could have a long-term effect on metabolism."

In many cases a C-section may be the best option, however healthcare professionals need to understand the long-term outcomes for mothers and their babies.

Reference

1. Darmasseelane K., Hyde M.J., Santhakumaran S. et al. Mode of delivery and offspring body mass index, overweight and obesity in adult life: a systematic review and meta-analysis. *PLoS ONE* 2014;9:e87896 doi:10.1371/journal.pone.0087896.

Is breast truly best?

A large study in the USA looked at data from over 8,000 children aged four to 14 to see whether breastfeeding is associated with better health and academic outcomes. The cohort study was carried out by researchers from the Department of Sociology at Ohio State University and was published in the journal *Social Science and Medicine*¹.

The researchers found that breastfed children had statistically better outcomes in nine out of 11 areas that encompassed physical health, behaviour and academic achievement. But when they looked at children from the same family who had been fed differently, they found no statistically significant differences in outcomes for breastfed and bottle-fed children. The authors suggest that the beneficial long-term effects typically attributed to breastfeeding, per se, may primarily be due to selection pressures on infant feeding practices along key demographic characteristics such as race and socioeconomic status.

An online analysis of the study by NHS Choices² points out that there are a number of confounding factors that were not adjusted for in this study, as well as maternal factors. Breastfeeding is still the preferred option, however it is important that mothers who do not breastfeed for whatever reason are not stigmatised.

References

1. Colen C.G., Ramey D.M. Is breast truly best? Estimating the effects of breastfeeding on long-term child health and wellbeing in the United States using sibling comparisons. *Soc Sci Med* 2014;doi:10.1016/j.socscimed.2014.01.027 [Epub ahead of print].
2. NHS Choices. *Is breast milk really best, American study asks.* [Online]; 2014. Available from: www.nhs.uk/news/2014/02february/Pages/Breast-milk-no-better-than-bottled-researcher-claims.aspx [Accessed 4 March 2014].

Mother's voice improves feeding in premature infants

Premature infants who receive an interventional therapy utilising a dummy-activated recording of their mother singing a lullaby, learn to suck more efficiently and have their feeding tubes removed sooner, according to a study published in *Pediatrics*¹.

The randomised clinical trial performed at Vanderbilt Children's Hospital in Nashville, USA, tested 94 premature infants of 34-36 weeks' postmenstrual age. The participating infants received the intervention for 15 minutes a day, for five days in a row. When they sucked correctly on their pacifier they were rewarded by the sound of their mother's voice.

The infants who received the intervention had their feeding tubes removed about a week earlier than the infants who did not. In addition, these infants had increased oral feeding rates and increased volume intake, and achieved full nipple feeding faster.

Reference

1. Chorna O.D., Slaughter J.C., Wang L. et al. A pacifier-activated music player with mother's voice improves oral feeding in preterm infants. *Pediatrics* 2014;133:462-68.