

HIGH PROTEIN INTAKE IN EARLY INFANCY MAY INCREASE OBESITY RISK

PROTEIN: FAKE NEWS

Despite the UK dietary guidelines recommending a healthy balanced diet,¹ high protein diets are frequently perceived as the healthiest option.² However, all macronutrients play an important role in the diet at every stage of life. As healthcare professionals, it can be difficult to navigate the *fake news* surrounding nutrition. How would you explain to a parent that a high protein diet is not necessarily a good thing for their baby?

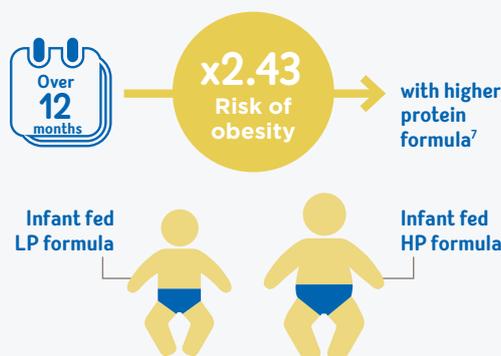
THE FIRST 1000 DAYS

Stage of life is an important determinant of dietary requirements.³ Studies link excessive protein during the first 1000 days with increased infant weight gain and obesity later in life.⁴

WHY PROTEIN?

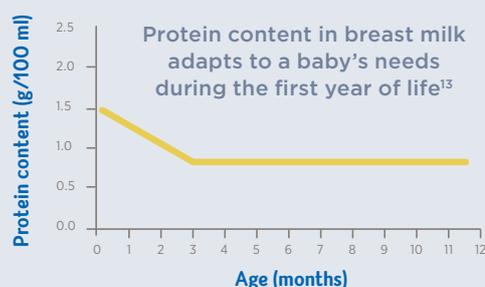
Excessive protein intake is a likely cause of accelerated growth in formula-fed infants due to insulinogenic amino acids,⁵⁻⁷ which stimulate the release of insulin, resulting in fat deposition.^{5,6}

Infants fed a higher protein formula have a greater risk of obesity later in life



Infants fed higher protein formula had a 2.43-fold increased risk of obesity compared to infants fed a lower protein formula.⁷

LP, lower protein; HP, higher protein.



BREASTFEEDING IS THE OPTIMAL WAY TO FEED A BABY^{8,9}

Breastfed babies tend to grow more slowly than formula-fed babies. This slower growth rate has shown significant long-term health benefits, including a lower risk of obesity and cardiovascular disease.⁸⁻¹² The protein content of breast milk adapts to the infant's requirements and decreases over the course of lactation in order to support age-appropriate growth.^{13,14}

PROTEIN IN INFANT FORMULA

Based on the latest science, some companies have lowered the protein content of their infant formulae and follow-on formulae in recent years. The aim is to achieve a slower growth rate in formula-fed infants, comparable to that of a breastfed infant,¹⁵ and to help reduce the infant's risk of becoming overweight or obese later in life.⁵

“Protein intakes of infants are generally well above the requirements, so protein content of IF and FOF could be reduced”

EFSA 2014¹⁶



FEEDING RECOMMENDATIONS TO PROTECT AGAINST OBESITY INCLUDE:

- Exclusive breastfeeding for the first 6 months of life with the introduction of appropriate complementary foods at 6 months alongside continued breastfeeding⁸
- If formula is being used, the use of a lower protein infant formula that has been clinically tested can support appropriate growth comparable to a breastfed baby¹⁵

References: 1. Public Health England (2016). From Plate to Guide: What, why and how for the eatwell model. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/575624/eatwell_guide_annex_1.pdf. (accessed July 2020). 2. Mintel (2017). WEBINAR: European consumers and protein. Why Protein matters in 2017? Available at: <https://www.mintel.com/why-protein-matters-in-2017>. (accessed July 2020). 3. Koletzko B, et al. *Proc Nutr Soc* 2012;71:371-378. 4. Rolland-Cachera M, et al. *Int J Environ Res Public Health* 2016;13:564. 5. Koletzko B, et al. *Am J Clin Nutr* 2009;89:1502s-1508s. 6. Kirchberg F, et al. *J Clin Endocrinol Metab* 2015;100:149-158. 7. Weber M, et al. *Am Soci Nutr* 2014;99:1041-1051. 8. Victora C, et al. *Lancet* 2016;387:475-490. 9. World Health Organization (2013). Long-term effects of breastfeeding: a systematic review on the benefits of breastfeeding on diarrhoea and pneumonia mortality. Available at: https://www.who.int/maternal_child_adolescent/documents/breastfeeding_long_term_effects/en/. (Accessed July 2020). 10. Singhal A, et al. *Am J Clin Nutr* 2010;92:1133-1144. 11. Woo Baidal J, et al. *Am J Prev Med* 2016;50:761-779. 12. Druet C, et al. *Paediatr Perinat Epidemiol* 2012;26:19-26. 13. Lönnerdal B, et al. *J Nutr Biochem* 2017;41:1-11. 14. Gidrewicz D, et al. *BMC Pediatr* 2014;14:216. 15. Alexander D, et al. *Am J Clin Nutr* 2016;104:1083-1092. 16. European Food Safety Authority (EFSA). EFSA Journal 2014;12(7):3760.

IMPORTANT NOTICE: Breast milk is best for babies and breastfeeding should continue for as long as possible. Infant milks should only be used on the advice of a doctor, midwife, health visitor, public health nurse, dietitian or pharmacist, or other professionals responsible for maternal and childcare.

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