

CLINICAL OVERVIEW

The debate continues on the best age to stop breastfeeding

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Abstract

The ongoing debate on the optimal duration of breastfeeding in high-income countries is challenging. The decision to continue breastfeeding beyond the introduction of solids according to WHO indications involves multifaceted considerations, such as nutritional needs, psychological factors and cultural influences, given the growing number of immigrants. The impact on maternal health, sleep routines and family dynamics should be carefully weighed too.

Conclusion: Next studies should investigate associations of different modalities and periods of breastfeeding with physical and neurodevelopmental outcomes, including psychological aspects. A personalised and gradual approach is suggested, guided by informed decisions and a supportive network.

Breastfeeding is a natural and essential practice that provides numerous health benefits for infants, including promoting the development of their growth and immune system. Most scientific bodies, including the World Health Organization, recommend exclusive breastfeeding for the first 4 to 6 months of life. They then suggest continuing breastfeeding, along with complementary foods, until at least 2 years of age, as long this continues to be a positive experience for the mother and infant.^{1,2} These recommendations are largely based on the specific circumstances in developing and transitional countries, where breastfeeding is the main way to improve most health outcomes in neonates and infants. It is also the only complete nourishment during the introduction of complementary feeding.³

Breastfeeding is an intimate and multifaceted experience that encompasses both physical nourishment and emotional bonding between the mother and her child. The benefits of breastfeeding are widely acknowledged, particularly reducing the risk of most infectious diseases during the early stages of life. However, researchers continue to debate the optimal duration of breastfeeding, from scientific, social, psychological and economic perspectives, and paediatricians get practical daily questions from mothers.⁴

As children pass 2 years of age, various factors come into play regarding their eating behaviours, from nutritional needs to differences in taste. The nutritional requirements of children evolve from infancy to toddlerhood and beyond, but the composition of breast milk remains substantially stable during the first 12–18 months of production.⁵ Therefore, although breast milk could still be a valuable source of nutrition, its role progressively becomes more and more complementary as children incorporate a diverse range of solid foods into their diet.

The appropriateness of extended breastfeeding can vary significantly, based on cultural and socioeconomic contexts. In many low-income countries, breastfeeding beyond 2 years can provide a practical solution to addressing limited access to uncontaminated water and nutritious foods.⁶ Indeed, breast milk remains a readily available and safe source of nourishment, which offers protection against malnutrition, especially when the solid foods that are available have low-nutritional value, in terms of either energy or protein.¹ Furthermore, breast milk remains a rich source of vital nutrients, including antibodies and factors that boost immunity and help to provide protection against infections. This ongoing immune support can be particularly valuable in environments where children are commonly exposed to illnesses, as it provides an extra

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layer of defence for the child's developing immune system. The benefits of extended breastfeeding are more pronounced in these settings. On the contrary, very hygienic measures are less of a challenge in high-income countries and the equation may change when there is access to clean water and diverse and nutritionally dense foods.

The benefits of breast milk need to be weighed up against the potential nutritional gaps and psychological considerations within these quite different and rapidly evolving contexts.⁷ As parents' awareness grows, they are confronted with a multitude of choices as they raise their children. Evolving dietary trends can also influence the decision to continue breastfeeding beyond infancy. For instance, parents who embrace baby-led weaning and mixed milk feeding may choose to prolong breastfeeding as a complementary measure while their children explore different textures and flavours at their own pace.⁸ Furthermore, the increasing availability of organic and nutritionally dense foods for infants and toddlers has expanded their dietary options, which, in turn, influences breastfeeding duration.⁹

The health benefits for the mothers should also be taken into account when we assess the factors that influence their will to prolong breastfeeding. Breastfeeding plays a potential role in reducing the risk of cancer and improving post-pregnancy weight control. Research has indicated that breast cancer is potentially reduced by up to 4.3% for every 12 months of lactation.^{10,11} However, extended breastfeeding can also have an impact on the sleep routines of both the children and their mothers. While some mothers could appreciate using breastfeeding to calm their child during the night, others may experience sleep disruptions that affect their overall well-being. However, it is worth emphasising that skin-to-skin feeding can be a source of comfort for both mothers and children during times of stress or discomfort. This emotional aspect underscores that its significance extends beyond just nutrition. It reinforces the idea that breastfeeding duration should consider both the physical and emotional well-being of the mother and her infant. Furthermore, it is important to note that skin-to-skin contact can still take place and be beneficial, even when the mother is not providing breast milk.¹² The influence of breastfeeding on the hormonal axis also deserves to be considered, particularly when planning further pregnancies shortly after the delivery.¹³ In addition, prolonged breastfeeding may sometimes lead to feelings of exclusion or inadequacy when fathers want to play a more active role in nurturing their child.¹⁴ While all these aspects should be interpreted with caution, along with individual health considerations, such the family's history or changing parenting practices, they may all play a significant role. They provide an additional dimension to the decision-making process for mothers who always put their child's needs first when making breastfeeding decisions.

The effects of extended breastfeeding, and its potential psychological impact on both children and their mothers, have been poorly investigated to date, despite the quite different conditions in heterogeneous world settings. As children grow, they gradually assert their independence while exploring the environment around them. Prolonged breastfeeding may inadvertently make children more

dependent on their mothers, even if the rest of their environment is rich and stimulating.¹⁵ Extended breastfeeding could also limit the mother's ability to engage in activities outside childcare. This could lead to feelings of frustration, exhaustion or even resentment, resulting in the mother experiencing depression and lower overall well-being.¹⁵ Once more, the concept of mixed milk feeding could help the mothers to sustain breastfeeding, while gradually introducing bottle feeding.¹⁶ One of the most prevalent drivers for mixed feeding is the mother's uncertainty to fully meet her child's needs through exclusive breastfeeding. In addition, external factors, such as feeling uncomfortable breastfeeding in public or the influence of family members and peers, have been found to influence the decision to introduce formula alongside breast milk.¹⁶ Creating harmony through mixed milk feeding can alleviate potential psychological burdens, enabling mothers to regain some of their independent activities, while maintaining the nurturing connection that breastfeeding provides.

It is also essential to consider the increasing prevalence of immigrants and ethnic groups living in Western societies. While these individuals may benefit from improved hygiene conditions in their new environments, they may also face significant economic and communication challenges. Western cultural norms and environmental habits could have an impact on their traditional approaches to their breastfeeding practices and this could affect the duration of breastfeeding among these communities.¹⁷ As the number of these ethnic groups continues to grow, it becomes increasingly important to provide them with better support and guidance to help them sustain breastfeeding for as long as possible.

Defining an appropriate age to stop breastfeeding is a complex, personal decision that involves multiple factors. In high-income countries, gradually reducing breastfeeding sessions may help both the child and the mother to make the transition to weaning. While breastfeeding offers vital health benefits during early infancy, continuing to provide breast milk after the introduction of solid foods involves nutritional, psychological and cultural factors. Any updated approach on the costs and benefits should include local geographic and socioeconomic factors, as well as the psychological well-being of both mothers and children.

The question on the optimal duration of breastfeeding is widely discussed these days but has remained mostly unanswered for countries with higher socioeconomic status, where nutritious foods are more affordable. Finding an acceptable equilibrium is particularly difficult and could require a personalised approach. Paediatricians should monitor both the child's overall development and the maternal bonding with the child and gradually encourage greater independence. Informed decisions, open communication and a supportive network are essential in making sure that any decisions are in line with the needs and aspirations of the entire family. These could result in early weaning, mixed feeding or extended breastfeeding.

Future studies should aim to distinguish between various breastfeeding indications in both developed and transitional and developing countries. They should also continue exploring health and neurodevelopmental outcomes in different settings.

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Antonio Corsello: Conceptualization; investigation; methodology; validation; writing – original draft. **Carlo Agostoni:** Conceptualization; investigation; validation; methodology; writing – review and editing.

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The authors have no conflict of interest to declare.

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