



Oral tolerance is a state of active nonresponsiveness to ingested soluble antigens mediated by gut-associated intestinal lymphoid tissue

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Breastfeeding, Childhood Asthma, and Allergic Disease

by Wendy H. Oddy

Key insights

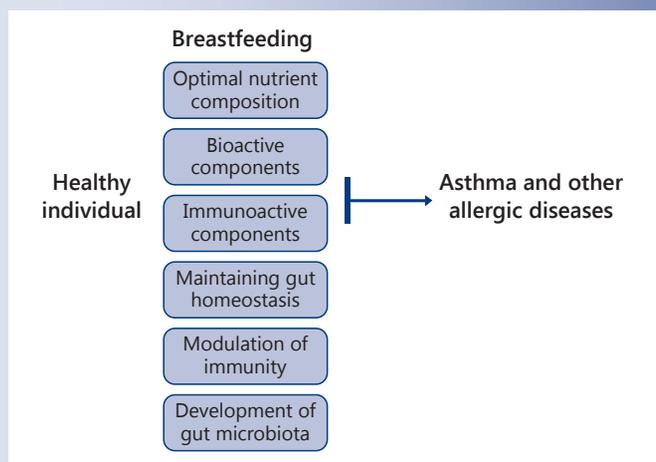
Breastfeeding may protect against childhood asthma and allergic disease, but this is controversial. Breastfeeding is critical for optimum immune development of the infant through bioactivity in milk and through impact on healthy establishment of microbiota. Breast milk is best for babies because of its immunomodulatory effects and protection against early infections. Because early infections are a major risk factor for asthma and allergic disease, protection through breastfeeding may be a pathway that shields against allergic disease.

Current knowledge

Exclusive breastfeeding for the first 6 months of life, and up to 2 years or longer, is encouraged as the “gold” standard for infant feeding because breastfeeding has health benefits for mother and child. Human maternal milk is uniquely suited to the human baby with nutritional composition as well as bioactive and immunological factors that promote healthy development. Breastfeeding has been associated with protection against early respiratory infections, and the observed association between breastfeeding and asthma at early ages may be mediated by the protection of breastfeeding on infections. Compared to formula-fed infants, breastfed infants have a healthier microbiota that may be linked to a reduced risk of allergic disease.

Practical implications

Exclusive or predominant breastfeeding to at least 6 months of age with continued breastfeeding up to 2 years is advised to protect against early infections and strengthen the immune



The protective effects of breastfeeding may extend against the development of asthma and allergic diseases.

system. Infants should be introduced to “tastes” of allergenic foods, such as egg and peanut, slowly from 4 to 6 months to develop oral tolerance. Lactating mothers should eat a healthy diet to ensure the quality of their breast milk and improve the quality and diversity of their microbiota.

Recommended reading

Scholtens S, Wijga AH, Brunekreef B, Kerkhof M, Hoekstra MO, Gerritsen J, et al: Breastfeeding, parental allergy and asthma in children followed for eight years: the PIAMA birth cohort study. Thorax 2009;64:604–609.