

Systematic review on infant feeding and development of atopic and autoimmune disease: Review A: Duration of total and exclusive breastfeeding, and timing of solid food introduction Review C: Maternal & Infant dietary exposures

Research programme [Food allergy and intolerance research --](#)

Study duration March 2013 to March 2016

Project code FS305005

Conducted by Imperial College London

Atopic conditions, including asthma, eczema and food allergy, appear to have increased in prevalence in recent decades in many countries, and are some of the most common causes of chronic illness in children and young adults living in the UK.

The relationship between the duration of total and exclusive breastfeeding, the timing of solid food introduction, and the influence of dietary exposures during pregnancy, lactation and/or infancy has been an area of considerable scientific uncertainty and debate in recent years.

Research approach

The key objective of this work was to undertake a systematic review of the published literature to investigate whether the duration of total and exclusive breastfeeding, the timing of solid food introduction, or the influence of dietary exposures during pregnancy, lactation and/or infancy influences the risk of developing atopic diseases (such as asthma, eczema or food allergy) or autoimmune diseases (such as diabetes mellitus or Crohn's disease).

Results

Following their comprehensive review of the literature, the contractors identified the following key findings:

- Probiotic supplementation during pregnancy and lactation may reduce risk of eczema.
- Fish oil supplementation during pregnancy may reduce risk of allergic sensitisation to egg.
- Other dietary exposures, including prebiotic supplements, maternal allergenic food avoidance, vitamin, mineral, fruit and vegetable intake did not appear to influence risk of allergic or autoimmune disease.

There is limited evidence to suggest that supporting mothers to breastfeed for longer reduces risk of eczema in the first year, and that longer exclusive breastfeeding duration reduces risk of type 1 diabetes.

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