

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.

[FS305005a: Overarching Research Report: Systematic review of scientific published literature on infant feeding and development o \(1.24 MB\)](#)

[FS305005a: Breastfeeding, Solid Food Introduction and Wheeze \(6.51 MB\)](#)

[FS305005a: Breastfeeding, Solid Food Introduction and Type I Diabetes Mellitus \(2.21 MB\)](#)

[FS305005a: Breastfeeding, Solid Food Introduction and Rhino conjunctivitis \(1.53 MB\)](#)

[FS305005a: Breastfeeding, Solid Food Introduction and risk of Food Allergy \(1.31 MB\)](#)

[FS305005a: Breastfeeding, Solid Food Introduction and risk of Eczema \(2.75 MB\)](#)

[FS305005a: Breastfeeding, Solid Food Introduction and Autoimmune Diseases \(1.69 MB\)](#)

[FS305005a: Breastfeeding, Solid Food Introduction and Allergic Sensitisation \(2.39 MB\)](#)

[FS305005cII: Overarching Research Report: Review C Part II: Dietary Exposures during Pregnancy, Lactation and/or Infancy for Red \(1.24 MB\)](#)

[FS305005cII: Maternal allergenic food avoidance and risk of allergic or auto-immune diseases in offspring \(2.18 MB\)](#)

[FS305005cII: Maternal and infant intake of vitamins and minerals, and risk of allergic and autoimmune diseases - Observational a \(3.91 MB\)](#)

[FS305005cII: Probiotic supplementation in pregnancy, lactation and/or infancy, and risk of allergic sensitisation or allergic di \(3.35 MB\)](#)

[FS305005cII: Prebiotic supplementation in infants and risk of allergic sensitisation or disease \(1.69 MB\)](#)

[FS305005cII: Polyunsaturated fatty acid supplementation in pregnancy/lactation/infancy, and risk of allergic sensitisation \(2.78 MB\)](#)

[FS305005cII: Dietary intake of sources of fatty acids in infants and mothers, and risk of allergic and autoimmune diseases \(2.79 MB\)](#)

[FS305005cII: Infant and maternal fruit and vegetable intake, and risk of allergic and autoimmune diseases \(2.04 MB\)](#)

[FS305005cII: Other dietary exposures in infants and mothers, and risk of allergic and autoimmune diseases \(1.45 MB\)](#)