Infant feeding and development of atopic and autoimmune disease - Review B - Timing of introduction of allergenic foods to the infant diet

Research programme Food allergy and intolerance research --
Study duration March 2013 to March 2016
Project code FS305005
Conducted by Imperial College, London

Background

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 commonest causes of chronic illness in children and young adults living in the UK.

The relationship between the timing of when allergenic foods are introduced into the infant diet and a child’s risk of developing any of these common atopic and/or autoimmune diseases 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 timing of introduction of common allergenic foods to the infant diet 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:

- The introduction of egg (from 4-6 months of age) or peanut (from 4-11 months of age) into the diet of infants may reduce their risk of developing egg or peanut allergy respectively.
- The early introduction of gluten into the infant diet did not increase the risk of developing celiac disease.
- Introducing fish before 6-12 months of age may reduce the risk of developing allergic rhinitis and allergic sensitisation.

Research report

Infant feeding and development of atopic and autoimmune disease (1.71 MB)
Timing of introduction of allergenic foods in infants, and risk of autoimmune disease (AID) (478.51 KB)
Timing of introduction of allergenic foods in infants, and risk of other autoimmune disease (AID) (393.79 KB)
Timing of introduction of allergenic foods in infants, and risk of allergic rhinoconjunctivitis (1.31 MB)
Timing of introduction of allergenic foods in infants, and risk of rhinoconjunctivitis observational
(583.82 KB)
Timing of introduction of allergenic foods in infants, and risk of allergic sensitisation (3.95 MB)
Timing of introduction of allergenic foods in infants, and risk of allergic sensitisation observational
(961.48 KB)
Timing of introduction of allergenic foods in infants, and risk of eczema intervention (1.53 MB)
Timing of introduction of allergenic foods in infants, and risk of eczema observational (1.36 MB)
Timing of introduction of allergenic foods in infants, and risk of food allergy intervention (3.35 MB)
Timing of introduction of allergenic foods in infants, and risk of food allergy observational (884.57 KB)
Timing of introduction of allergenic foods in infants and risk of type 1 diabetes observational (1.18 MB)
Timing of introduction of allergenic foods in infants, and risk of wheezing observational (1.36 MB)

Team contacts

SERD

Team contact

England
SERD@food.gov.uk