

Prevalence of peanut allergy in British children at school entry age in 2003

Area of research interest: [Food hypersensitivity](#)

Study duration: 2003-04-01

Planned completion: 1 September 2005

Project code: University of Southampton

Conducted by: University of Southampton

Background

The UK prevalence of sensitisation to peanut was found to be 1.3% in a single-centre birth cohort born in 1989-90. In a later cohort, born in 1995, the prevalence had more than doubled, as reported by the same centre. The 1998 COT report advised pregnant mothers and infants from atopic families to avoid peanuts. It is not known what effect this advice has had on the dietary habits of atopic and non-atopic mothers, or if its intended effect on the prevalence of peanut sensitisation in their offspring has been realised.

The study investigated approximately 2000 UK children born between March 1999 (9 months after the COT report) and March 2000. Children were evaluated for peanut allergy and sensitisation to other potential allergens and their mothers were asked about their own peanut consumption during pregnancy and breastfeeding.

Research Approach

Mothers were approached via schools and they and their child were recruited with written informed personal and parental consent. The mothers were asked in personal interviews about their own and their family's allergic conditions, their recall of the COT advice and their own peanut consumption during pregnancy and breastfeeding. Children were evaluated for maternal recall of their peanut consumption in infancy, current or resolved allergic conditions and for sensitisation to common food and aeroallergens.

All children with positive screening skin prick tests (SPTs) to peanut were offered a formal double-blind, placebo-controlled food challenge with peanut to confirm the diagnosis.

Results

1072 mother-child pairs were recruited and studied in school.

61% of 957 mothers recalled hearing the advice about peanut in 1998. This figure was unaffected by maternal atopic status. Only 36 mothers (3.8%) followed the Government's advice by stopping consuming peanut while pregnant. Maternal atopy had no effect on peanut consumption while breastfeeding. Mothers were less likely to change their diet if having 2nd or subsequent child compared to mothers having their first child (OR 0.635, 95% CIs 0.543-0.743, p

20 children (1.8%, 95% CIs 1.1-2.7%) were shown to have peanut allergy. This is the highest prevalence of peanut allergy recorded to date. Causal pathway analysis showed clearly that mothers had been confused about whether COT advice applied to them. We found no significant differences between low risk and high risk mothers in whether or not they recalled the advice. Although mothers were more likely to remember COT advice if it had been given by a midwife, they were only more likely to actually comply with this advice if peanut consumption was already low.

The prevalence of peanut sensitisation in this cohort is 2.8% and peanut allergy now affects 1.8% of British children at school entry. It is difficult to ascertain any impact (either positive or negative) of the UK Government advice on the prevalence of peanut allergy in British children aged 4-5 years old in 2003-2005. Pre-conceptual maternal peanut consumption patterns were an important barrier to change, that must be addressed if planned specific advice is to cause changes of maternal dietary behaviour.

Research report

England, Northern Ireland and Wales

PDF

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