

Should the FDA add sesame to the current list of food allergens?



Different opinions exist about adding sesame to the FDA food allergen list - we of course respect this - below is a summary of the prevalence of sesame allergy:

Only one study world-wide reported on challenge-proven sesame allergy. This is the Food Allergy and Intolerance Research Study (FAIR) from the Isle of Wight.

The FAIR Isle of Wight study involved four different cohorts:

- a birth cohort born between 2001 and 2002 and assessed at 3 years and 10 years
- a school cohort born between 1997 and 1998 and assessed at 6 years
- a school cohort born between 1991 and 1992 and assessed at 11 years
- a school cohort born between 1987 and 1988 and assessed at 15 years

Diagnosis in the FAIR Study was based on food challenge or a good clinical history plus a positive skin prick test (SPT). We published 4 relevant papers from this study, three of which included data on sesame prevalence. These are summarized in the table below.

Additional unpublished data on sesame prevalence from the fourth study covering the 1991-1992 and 1987-1988 school cohorts are also included in the table, denoted with an asterisk.

It is important to take into account that some children declined to undergo food challenges in these studies. Recruitment and retention rates (indicated in the table by % of cohort assessed) were much higher in the birth cohort at both 3 and 10 year of age than in the school cohorts.

Sesame allergy prevalence

Cohort	Age assessed	% of cohort assessed	Food challenge/good clinical history with positive SPT (%)	Reported prevalence (%) by Gupta et al. (2018) **
Birth cohort (born 2001-2002)	3 years	91.6	0.6 (5/891) ₁	0.2 ₂
Birth cohort (born 2001-2002)	10 years	85.3	0.73 (6/872) ₃	0.3 ₂
Cross-sectional school cohort (born 1997 – 1998)	6 years	55.4	0.1% (1/798) ₄	0.3 ₂
Cross-sectional school cohort (born 1991-1992)	11 years	47.4	0% (0/775) – confirmed by a history of regular consumption or negative oral food challenges* ₅	0.1 ₂
Cross-sectional school cohort (born 1987-1988)	15 years	50.2	0% (0/757) – confirmed by a history of regular consumption or negative oral food challenges* ₅	0.1 ₂

*not in paper – taken from our unpublished data

** listed as a comparison to the Isle of Wight data despite clear discrepancy in study designs.



Differences in prevalence of sesame allergy:

From this one study conducted on the Isle of Wight (UK) more than 17 years ago, it seems the reported prevalence for sesame allergy was higher in the younger cohort (0.7% for children born 2001 – 2002) than in the older cohort (0% for children born 1987 – 1988/1991-1992). This could indicate that sesame allergy prevalence might have increased. However, issues with recruitment and retention in the school cohort studies should also be taken into account and could serve as another possible explanation for the difference in challenge-proven sesame allergy prevalence between cohorts.

The figures from the FAIR Isle of Wight school cohorts are also lower than the recent US prevalence estimates reported by Gupta *et al.* (2018).² Again, issues with recruitment for the school cohorts, indicated in the table, should be taken into account. The sesame prevalence data from the FAIR birth cohort (2001-2002), are more recent and have higher recruitment/retention rates. This cohort reflects a 0.6 percent prevalence at 3 years and 0.7 percent prevalence at 10 years, both higher than the US prevalence estimates reported by Gupta *et al.*²

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