

# Peanut Allergy Study

Most of the information below was obtained from peanutallergy.com, a website dedicated to protecting peanut allergic people from possible exposure to allergens. At this site is a virtual library of scientific studies on this subject. I have selected two of these studies that both underscore the fact that our peanut butter scent would have *absolutely no effect* on a peanut allergic person.

As an introduction to the first study I would like to reiterate that the manufacturer of the peanut butter scent used in Catchmaster glue traps has repeatedly informed us that this scent... "does not contain any peanuts, peanut oil, peanut products, peanut by-products, or isolates or extracts from peanuts." The study below conclusively shows that the allergic components in peanuts are in fact the **19 PROTIENS FOUND IN PEANUTS, NOT A SYNTHETIC PEANUT SCENT.**

## **Identification of the allergenic peanut proteins**

According to Clarke and coll., in the Oct. 1998 issue of *Clinical Experimental Allergy*, there are **19 peanut proteins**. . . the major ones being Ara h 1 and Ara h 2 to which 70% of subjects reacted

## **Serological characteristics of peanut allergy.**

**Clarke MC, Kilburn SA, Hourihane JO, Dean KR, Warner JO, Dean TP**

University Child Health, Southampton General Hospital, Southampton, UK.

**BACKGROUND:** Peanut is the most common cause of severe or fatal food-associated anaphylaxis. Studies indicate that peanut extracts contain many allergenic proteins. The identification of major and minor allergenic components is necessary for standardization of experimental and diagnostic extracts. **OBJECTIVE:** To identify further major and minor allergenic components of peanut extract using a large population of peanut allergics, and to relate serological findings to clinical parameters. **METHODS:** The crude peanut extract was fractionated by fast protein liquid chromatography and the IgE binding proteins identified by sodium dodecyl sulphate polyacrylamide gel electrophoresis followed by western blotting. Serum from 89 peanut allergics with a positive history of peanut allergy and elevated specific IgE and control serum from four atopic and four non-atopic, non-peanut allergics were used. **RESULTS:** Nineteen peanut proteins were found to bind IgE from peanut allergic sera. Over 70% of subjects reacted to protein bands of 63 and 17 kDa (consistent with Ara h 1 and Ara h 2, respectively), confirming the importance of these two proteins as major allergens. A high proportion of patient sera also bound proteins at 15, 10, 30, 18 and 51 kDa in decreasing order. The percentage of cases with sensitivity to a 15 kDa protein was found to be higher in patient groups with severe reactions to peanut. **CONCLUSION:** This study highlights the

diversity of peanut allergens. Diagnostic extracts containing a high proportion of the 15 kDa component may aid in diagnosis.

PMID: 9824392, UI: 99041700

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The study above conclusively shows that peanut allergy is related to proteins found in peanuts and no other peanut component.

To further accentuate this point, I would like to list yet another study – this one with surprising results. As the study will show, even people who suffer from *severe* peanut allergies do not react to refined peanut oil. Yet again, this conclusively proves that although a substance may **seem** directly related to peanuts, that substance does not necessarily have an adverse effect on peanut allergy sufferers. Clearly, substances that are free of peanut proteins, such as refined peanut oil or Catchmaster's peanut butter scent, do not cause reactions to peanut allergic patients.

### **Peanut oil**

-Peanut oil is not allergenic (in other words, it will not cause an allergic reaction in the peanut-allergic individual). Of 10 peanut-allergic patients challenged with peanut oil, none reacted to the protein-free oils. Subsequent reports have indicated that **oils contaminated with peanut protein** may indeed produce significant allergic reactions in peanut-sensitive individuals.

-Hourihane and co-workers evaluated two grades of peanut oil for a large group of subjects with proven allergy to peanuts, in a double-blind, crossover food challenge with crude peanut oil and refined peanut oil. **None of the 60 subjects reacted to the refined oil**; six (10%) reacted to the crude oil. Refined peanut oil did not pose a risk to any of the subjects.

## **Randomised, double blind, crossover challenge study of allergenicity of peanut oils in subjects allergic to peanuts.**

**Hourihane JO, Bedwani SJ, Dean TP, Warner JO**

University Department of Child Health, Southampton General Hospital.

**OBJECTIVE:** To determine the in vivo allergenicity of two grades of peanut oil for a large group of subjects with proved allergy to peanuts. **DESIGN:** Double blind, crossover food challenge with crude peanut oil and refined peanut oil. **SETTING:** Dedicated clinical investigation unit in a university hospital. **SUBJECTS:** 60 subjects allergic to

peanuts; allergy was confirmed by challenge tests. OUTCOME MEASURES: Allergic reaction to the tested peanut oils. RESULTS: None of the 60 subjects reacted to the refined oil; six (10%) reacted to the crude oil. Supervised peanut challenge caused considerably less severe reactions than subjects had reported previously. CONCLUSIONS: Crude peanut oil caused allergic reactions in 10% of allergic subjects studied and should continue to be avoided. Refined peanut oil did not pose a risk to any of the subjects. It would be reasonable to recommend a change in labeling to distinguish refined from crude peanut oil.

Publication Types:

- Clinical trial
- Randomized controlled trial

PMID: 9133891, UI: 97279450

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Both studies show that:

- a) Proteins in peanuts are the cause of peanut allergy reactions
- b) Substances that do not contain such proteins **would not cause an allergic reaction**

As mentioned above, the scent used by Atlantic Paste & Glue Co. for all its peanut butter scented products, does not contain any peanuts, peanut oil, peanut products, peanut by-products, isolates or extracts from peanuts. Certainly, based on the stated facts, this scent **does not contain any peanut related proteins** and, by extension, should be harmless to individuals with peanut allergies according to the above studies.