Oral Rush Desensitization to Egg: Efficacy and Safety

PURPOSE OF THE STUDY. Previously published oral desensitization protocols require weeks to months. The current study evaluates the safety, efficacy, and immunologic effects of a rapid egg oral desensitization protocol.

STUDY POPULATION. Twenty-three patients between 5 and 17 years of age with symptomatic immunoglobulin (Ig) E-mediated egg allergy were recruited from the Allergy Clinic of Ciudad Real General Hospital. Patients had a clinical history of IgE-mediated egg allergy and at least 1 of the following: a positive skin prick test to commercial egg extract, detection of serum specific IgE (>0.35 kU/L) to egg white or its proteins measured by fluorescence enzyme immunoassay, a positive oral challenge test within the previous 3 months, or an unequivocal history of reaction to egg within the previous 3 months.

METHODS. Skin prick testing to pasteurized raw egg white and commercial extracts of egg, egg white, ovalbumin, and ovomucoid were performed before desensitization and at 3, 6, and 12 months after desensitization. Egg-specific IgE and IgG were measured before desensitization at week 3; and at 3, 6, and 12 months after desensitization. Desensitization was achieved when the patient tolerated 1 whole cooked egg (30 mL of egg white) and 8 mL (1/4 of white of whole egg) of raw egg white. The desensitization was planned for a 5-day period but was individualized for each patient based on adverse reactions. Variables measured included the number and severity of adverse reactions, minimum dose that triggered symptoms, days until tolerance, and egg-specific IgE and IgG before desensitization and during the minimum 6-month follow-up period.

RESULTS. Twenty (86.9%) of the 23 patients achieved tolerance to a whole cooked egg. Fourteen patients achieved tolerance within 5 days. Six patients achieved tolerance in <10 days. One patient discontinued desensitization due to repeated gastrointestinal adverse reactions. Two patients were switched to a slow desensitization protocol and achieved tolerance in 60 and 80 days, respectively. Eighteen patients experienced at least 1 adverse reaction during desensitization. There were 35 mild and 20 moderate reactions. Desensitization led to a fall in the mean values of skin prick test wheal size and specific IgE levels significant at 6 months after desensitization and an increase in specific IgG levels significant at 3 weeks after desensitization.

CONCLUSIONS. The described protocol is safe and effective but must be performed in a highly supervised setting.
Egg allergic patients can be desensitized within 5 days, without increased risk compared with earlier reported, slower protocols.

**REVIEWER COMMENTS.** Egg is a common ingredient in a wide variety of foods. Desensitizing egg-allergic patients would reduce the risk of anaphylaxis associated with accidental ingestion and allow patients to consume a broader diet. Although the current study shows great promise, oral desensitization has significant inherent risks. Additional studies addressing patient selection, dosing, and long-term tolerance are essential before rapid oral desensitization becomes a commonly performed procedure.

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**The Ability of Adults and Children to Visually Identify Peanuts and Tree Nuts**


**PURPOSE OF THE STUDY.** To determine the ability of children and adults to visually identify and differentiate peanuts and tree nuts by displaying the nuts in commonly purchased and used forms.

**STUDY POPULATION.** One thousand one hundred five self-selected adults and children (456 children aged 6–18 years) visiting an interactive children’s science center.

**METHODS.** Participants were recruited to a nut display consisting of 19 numbered compartments displaying peanuts and 9 tree nuts in commonly purchased and used forms. Data on demographics, personal or family history of peanut or nut allergy, current or previous roles in child care, teaching, food preparation or serving, or patient care were collected. Participants were then asked to identify each nut in the display.

**RESULTS.** There was a wide distribution of correct answers. The mean number of correct answers was 8.4 of 19; the responses of adults (11.1) were better than those of the children (4.6). The most common identifications included peanut in the shell 94.7% of the time, peanuts out of the shell 80.5% of the time, and cashews 76.7% of the time. The least common was hazelnut at 16.1%. Twenty-seven (2.4%) self-reported peanut or tree nut allergy; no differences in correct answers were seen between allergic and nonallergic participants or parents. Twenty of the 27 were able to name the nut to which they were allergic, but only 50% correctly identified all forms of those nuts. Fifteen of 20 parents of children with allergies were able to name the nut to which their children were allergic and 73.7% correctly identified the nuts. Those involved in some aspect of child care or health care did significantly better than those who were not, but those in the food

Parents Report Better Health-Related Quality of Life for Their Food-Allergic Children Than Children Themselves

van der Velde JL, Flokstra-de Blok BM, Dunngalvin A, Hourihane JO, Duiverman EJ, Dubois AE. *Clin Exp Allergy.* 2011;41(10):1431–1439

**PURPOSE OF THE STUDY.** To analyze health-related quality of life (HRQoL) in food-allergic children, compared with parental-proxy reports of the child’s HRQoL.

**STUDY POPULATION.** Dutch children aged 8 to 12 years with at least 1 physician-diagnosed food allergy and their parents were recruited from a Dutch pediatric allergy clinic over a 2-year period.

**METHODS.** Children and their parents completed 2 forms, the Food Allergy Quality of Life Questionnaire (FAQLQ)—Child Form and FAQLQ—Parent Form. Both questionnaires address risk of accidental exposure, emotional impact, allergen avoidance, and dietary restriction. These are both scored on a 7-point scale, with 7 being the maximal impact on quality of life.

**RESULTS.** Seventy-four child-parent pairs were analyzed: 73% of children had peanut/tree nut allergy, and 84% of children had a history of anaphylaxis. Ninety-one percent of the parents surveyed were mothers. The total FAQLQ—Child Form score was significantly higher than the total FAQLQ—Parent Form score, 3.74 vs 2.68 ($P < .001$). This indicates a more severe impact on HRQoL for children compared with their parental perceptions. Additionally, the mean difference between child- and parent-reported HRQoL was higher in younger children (8–10 years) than older children (11–12 years).

**CONCLUSIONS.** Children reported a significantly greater impact of their food allergies on quality of life compared with their parental-proxy reports. This demonstrates a difference in perspective between children and their parents, and it is important to recognize this potential discordance in the clinical setting.

**REVIEWER COMMENTS.** This study represents the first published comparison of child and parent-proxy reported HRQoL by using validated measures. There may be cultural differences influencing quality-of-life perceptions in the Netherlands that are not similar in other countries. It would be interesting, however, to conduct largerscale, multicenter, multinational studies.
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