For breastfed infants with food allergy, strict avoidance of the offending food proteins for both mother and child is frequently recommended. Total dietary avoidance of egg is difficult for patients to achieve. Additional study is needed to substantiate or to refute the preliminary observation that regular maternal ingestion of a small quantity of well-cooked egg did not markedly exacerbate eczema symptoms in egg-sensitive infants.

The Natural History of Wheat Allergy

Purpose of the study. Wheat allergy is among the most common of food allergies, affecting ~0.4% of children, but little is known about its natural history. The purpose of this study was to determine at what age wheat allergy is outgrown and to identify clinical and laboratory predictors of tolerance development.

Study population. Participants were children from the Johns Hopkins pediatric allergy clinic who had a history of symptomatic reaction (presumed immunoglobulin E [IgE]-mediated) to wheat and a positive wheat-specific IgE test result. Inclusion criteria were met by 103 children.

Methods. The study was a retrospective, medical record review. Resolution of allergy was determined by the results of food-challenge testing. Kaplan-Meier survival curves were generated to depict resolution of wheat allergy.

Results. The median initial wheat-specific IgE level was 24 kU/L, and the median peak wheat-specific IgE level was 73 kU/L. Rates of resolution of wheat allergy were 29% by the age of 4 years, 56% by the age of 8 years, 65% by the age of 12 years, and 70% by the age of 14 years. Higher wheat-specific IgE levels were associated with worse outcomes. A total of 63 of 103 participants underwent a food challenge during the study period. The peak wheat-specific IgE level recorded was a useful predictor of persistent allergy, although many children with even the highest levels of wheat IgE outgrew wheat allergy.

Conclusions. The median age of resolution of wheat allergy was 6.5 years in this population. However, 35% of the patients remained allergic into their teenage years.

Conclusions. Previous attempts have been made to establish wheat IgE levels that would predict clinical reactivity and prognosis. This study, in attempting to do that, included the largest population of wheat-allergic patients that has yet been described. Patients were included on the basis of a retrospective chart review and, because the inclusion criteria did not require an oral food challenge, it is possible that at the time of initial enrollment some of the patients were no longer allergic to wheat. Tolerance was appropriately determined by food challenge; however, not all patients were challenged. This might have been because a patient had a convincing reaction after an unintentional exposure to wheat, but the authors did not make that clear. In addition, some patients had ingestion reactions while trying wheat at home, which, as the authors acknowledged, raises the possibility that wheat allergy was overdiagnosed. Another limitation is that the population (in which 90% of the children included had other food allergies) might not be representative of the general population. The authors found that peak wheat-specific IgE levels were helpful in determining prognosis. However, in clinical practice, it is difficult to determine whether the peak wheat-specific IgE level for an individual patient has been reached. Because some patients with higher specific IgE levels do tolerate wheat, the authors acknowledge that wheat IgE is less helpful in predicting clinical reactivity and prognosis, compared with other foods.

High Levels of IgG4 Antibodies to Foods During Infancy Are Associated With Tolerance to Corresponding Foods Later in Life

Purpose of the study. To examine the serum and salivary antibody responses to food-elimination diets and to identify immunologic parameters related to oral tolerance.

Study population. Prospective study of 89 children <2 years of age with eczema.

Methods. Children with eczema were examined at 3 time points, that is, at enrollment, after a 6-week treatment period, and at 4.5 years of age. Treatment included topical emollients and/or steroids for all children and a 6-week egg- and/or milk-elimination diet for 60 of the 89 children in the cohort of children who were diagnosed with an allergy to 1 or both foods. Laboratory data...
The Natural History of Wheat Allergy
Mariah M. Pieretti and Kirsi M. Järvinen
Pediatrics 2009;124;S121
DOI: 10.1542/peds.2009-1870Y

Updated Information & Services
including high resolution figures, can be found at: /content/124/Supplement_2/S121.1.full.html

Subspecialty Collections
This article, along with others on similar topics, appears in the following collection(s):
Allergy/Immunology /cgi/collection/allergy:immunology_sub

Permissions & Licensing
Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
/site/misc/Permissions.xhtml

Reprints
Information about ordering reprints can be found online:
/site/misc/reprints.xhtml

PEDIATRICS is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. PEDIATRICS is owned, published, and trademarked by the American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, Illinois, 60007. Copyright © 2009 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 0031-4005. Online ISSN: 1098-4275.
The Natural History of Wheat Allergy
Mariah M. Pieretti and Kirsi M. Järvinen
*Pediatrics* 2009;124;S121
DOI: 10.1542/peds.2009-1870Y

The online version of this article, along with updated information and services, is located on the World Wide Web at:
/content/124/Supplement_2/S121.1.full.html