

# Culinary Nutrition News:

## Allergen Awareness: The Peanut Edition

Provided through a partnership between ACEF Chef & Child Foundation and Clemson University, and sponsored by French's Foodservice.

**Being** knowledgeable about today's rise of peanut allergies is important for chefs and food producers as well as consumers. It is imperative that chefs know what foods typically contain peanuts and list those that do not on menus so the consumer will be able to avoid an allergic reaction. It is also vital to maintain clean working environments when dealing with peanuts. There should be separate sections of the kitchen where peanuts are allowed and not allowed to prevent mixing traces of peanuts into all dishes. Doing this could prevent hospital visits and potential lawsuits.

Furthermore, creating a variety of peanut-free dishes may help your business if you consider that 1.5% of the U.S. population, or approximately 4 million people, has a peanut allergy. People with a peanut allergy will appreciate having unique, tasty menu options without having to worry about a potential reaction. This awareness and attention to food item nutrition and variety could be beneficial to everyone, not just those with allergies.

### Not all nuts are equal

Peanut allergies appear to be on the rise, especially in children and young adults. However, a peanut allergy should not be confused with an allergy to tree nuts. While both can cause severe reactions,

these are, in fact, two separate allergies. On the other hand, many experts recommend people with peanut allergies avoid tree nuts as well. Tree nuts include, but are not limited to, walnuts, almonds, hazelnuts, coconuts, cashews, pistachios and Brazil nuts. Peanuts are actually considered a legume or seed such as sunflower or sesame. Although once considered to be a lifelong allergy, it is possible for some children diagnosed with peanut allergy to outgrow it.

### Scientifically speaking

People often use the terms food allergy and food intolerance interchangeably. However, a food allergy has an immediate response that causes histamine and IgE antibody production, while a food intolerance has a delayed response and causes the production of IgG antibodies.<sup>1</sup> IgE and IgG are proteins called immunoglobulins that are produced by the body and have a specific function. The IgE antibody specifically binds to antigens or foreign pathogens in the body that are usually associated with allergies. The IgG antibody is known as the "general" antibody for any foreign pathogen. Even though some cases may in fact be food intolerances, the number of food-related problems is still increasing.

### Melting pot

Some speculate that the mixing of different cuisines has caused an increase in food allergies over the years. Because

of trade and globalization, more exotic foods that people have never seen before have been making their way onto American plates. Many people's immune systems recognize these foods as foreign pathogens, which may result in developing an allergy. Also, other countries' food regulation and food labeling laws are different from the U.S., which could also lead people to consume a component they may not realize is in the food product.

However, the addition of foreign foods does not explain why peanut allergies have increased in America. One study noted that countries that have introduced peanut butter are now starting to notice a



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Around 4 million people in the U.S. have a peanut allergy.

rise in the prevalence of peanut allergies.<sup>2</sup> Other research on allergies and eating habits in specific regions is currently being conducted and has revealed significant trends. For instance, sesame allergies are more common in Israel and the Middle East, while rice allergies are more prevalent in Japan and China. However, scientists want to investigate these findings in further detail.<sup>2</sup>

### More peanuts, more allergies?

You may wonder if it is possible that peanut allergies appear to be more common because people consume large amounts of peanuts or peanut butter throughout their life. It could also be that since a huge population in America eat peanuts or peanut butter, it is more likely for peanut allergies to develop instead of another food that isn't quite as prevalent. The Chinese eat the same amount of peanuts per capita as the U.S., but they introduce it early in a boiled/mashed form. This is also the case in many African countries. Both countries have low rates of peanut allergies.<sup>3</sup> Therefore, allergy rates might have as much to do with how and when the food is introduced as with the food itself.<sup>2</sup>

### Roasted, boiled or fried

The slightly different flavor between some peanuts is due to the different cooking methods such as roasting, boiling and frying. Because of the increase in peanut allergies, tests have been conducted on peanuts that have been cooked in these different ways to find some correlation between peanut allergies and the cooking method. One study found that roasted peanuts had a slightly higher IgE binding and AGEs (Advanced Glycation End products) level compared with other peanuts.<sup>4</sup> Some allergy tests look for IgE antibodies in the patient's blood. If high levels of these antibodies are found, the patient is likely to have an allergy to that specific item. Thus, if roasted peanuts tend to have higher IgE binding levels, people are more likely to develop antibodies against them.<sup>4</sup> AGEs are the result of a chain of reactions that take place in the body. Many cells in the body contain receptors for these AGEs, but the result of binding them could lead to age and diabetes related chronic-inflammatory diseases.<sup>5</sup> High levels of AGEs could mean that subject is at risk for allergies and inflammatory diseases.

## Preventing allergy problems

Since peanut allergies are prevalent today, it is important to discover ways to prevent problems. There is no medical cure for food allergies, but there are certain prevention methods that may reduce the risk of certain allergies. Pregnant women with known allergies are told to stay away from all peanut products during their pregnancy and breast-feeding. It is also recommended that new mothers breast-feed their infants for at least four to six months. That way, their newborn will attain some of his or her mother's antibodies to reduce infection and some potential allergies.

It is also recommended to introduce vegetables, rice, meat, fruit and other foods into newborn's diet one at a time after 12 months. This is advised to make sure the child can be monitored for intake of individual food items and avoid many new foods from being introduced and ingested at once. If all of these steps are taken as a precaution, the risk of having a peanut or other food allergy is reduced.

Once a peanut allergy is detected, it is important to avoid peanuts to prevent an allergic reaction. Reading food labels is one way to prevent accidentally consuming peanuts. However, some foods unexpectedly contain peanuts or traces of peanuts, so consumers may not think to check for them. It is important for both the consumer and producer to communicate and be well aware of a wide variety of peanut-containing foods. It is also important to keep in mind those food products that come from a factory that incorporate peanuts into a variety of products. Care must be taken to prevent any cross-contamination from traces of peanuts into any of those other food products.

### Cooking for kids

According to a survey, self-reported peanut allergies doubled among some populations of children from 1997 to 2002.<sup>3</sup> The increase in peanut allergies has been

## UNEXPECTED SOURCES OF PEANUTS:

- >> SAUCES such as chili sauce, hot sauce, pesto, gravy, mole and salad dressing
- >> SWEETS such as pudding, cookies and hot chocolate
- >> EGG rolls
- >> POTATO pancakes
- >> PET food
- >> SPECIALTY pizzas
- >> ASIAN and Mexican dishes
- >> SOME vegetarian food products, especially those advertised as meat substitutes
- >> FOODS that contain extruded, cold-pressed or expelled peanut oil, which may contain peanut protein
- >> GLAZES and marinades
- >> SOME alternative nut butters such as soy nut butter or sunflower seed butter are produced on equipment shared with other tree nuts and, in some cases, peanuts
- >> PEANUTS go by many names, such as ground nuts, beer nuts or monkey nuts
- >> PEANUTS can be found in many foods and candies, especially chocolate candy

Source: Food Allergy & Anaphylaxis Network

speculated to be in part due to creating excessively clean environments for children, causing their immune system to become hypersensitive. In one survey, the reported food hypersensitivity among the 11- and 15-year-old subjects was 11.6% and 12.4% respectively.<sup>6</sup> Tests have been conducted demonstrating that hypersensitivity may decrease as the child ages. This continues to be an important issue for younger children.<sup>6</sup> An important consideration is the



Specialty pizzas are one of many unexpected sources of peanuts.

popularity of peanut butter and the consumption of peanut butter and jelly sandwiches with children. Due to the increasing number of allergies associated with the food, it is time to examine the peanut butter food group and its plethora of kid-approved peanut butter infused food items. Variety continues to be the best approach to cooking for kids, and when cooking for kids with allergies, a variety of allergy-free foods is necessary for their satisfaction and health.

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## About the American Culinary Federation and the Chef & Child Foundation



The American Culinary Federation, Inc., established in 1929, is the premier professional organization for culinarians in North America. With more than 20,000 members in 225 chapters nationwide, ACF is the culinary leader in offering educational resources, training, apprenticeship and accreditation. In addition, ACF operates the most comprehensive certification program for chefs in the United States. ACF is home to ACF Culinary Team USA, the official representative for the United States in major international culinary competitions, and to the Chef & Child Foundation, founded in 1989 to promote proper nutrition in children and to combat childhood obesity. For more information, visit [www.acfcchefs.org](http://www.acfcchefs.org).

## About Clemson University



CU CHEFS® (Clemson University's Cooking and Healthy Eating Food Specialists) instructional program, led by Dr. Margaret Condrasky, associate professor in Food Science and Human Nutrition, is a registered trademark of Clemson University designed to promote changes in menu planning, food purchasing, food preparation and food consumption behaviors with a goal of fostering good health through healthy nutrition. 'Culinary nutrition' is the application of nutrition principles combined with food science knowledge displayed through a mastery of culinary skills. The results are healthy eating behaviors grounded in culinary confidence and nutrition alertness. CU CHEFS® promotes an awareness of the latest trends in foods and nutrition through the demonstration of proficient culinary skills to produce flavorful, health-inspired menus for schools, churches and restaurants. Clemson University, located in Clemson, S.C., is ranked 22 among the nation's top public institutions. Since 2001, Clemson has doubled external research funding, raised the academic profile of the student body, increased retention and graduation rates, launched high-profile economic development and earned national accolades, including being named *Time's* Public College of the Year.

## About French's Foodservice



French's Foodservice is proud to sponsor this series of nutritional articles authored by Clemson University for

the American Culinary Federation's Chef & Child Foundation. At French's Foodservice, we believe that "you are what you serve," and have built our reputation by providing the highest quality ingredients to meet the ever-changing needs of the foodservice industry. As chefs, restaurateurs, educators and nutritionists, you positively impact the health of our nation by advocating the positive impact of healthy eating, especially among children. We are proud to support this worthy cause.

Over the last 100 years, French's has become one of the most recognized and respected brands in America. Today, the French's Foodservice family of brands delivers the highest quality, most flavorful products possible. For the brands your patrons know and love and the incredible flavors that enhance everything from soups and salads to sandwiches and entrées, entrust your patrons to the flavors of French's.



Even coconut, a tropical tree nut, can spell trouble for those with peanut allergies.

## FOR MORE INFORMATION

### Food Allergy & Anaphylaxis Network

is a nonprofit organization dedicated to bringing about a clearer understanding of the issues surrounding food allergies and providing helpful resources.

**Visit:** [www.foodallergy.org](http://www.foodallergy.org)

**PeanutAllergy.com** aims to bring people together around nut allergy issues by providing concise, up-to-date information and an online meeting place for concerned parents and others with nut allergy concerns.

**Visit:** [www.peanutallergy.com](http://www.peanutallergy.com)

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