allergyinsider

Food

Almond Allergen Fact Sheet

About almond

Allergies to tree nuts such as almonds are common and often severe. These types of allergies typically develop by the age of two, and the number of tree nuts to which a person is allergic may increase with age.[1] Roughly 30 percent of people with a tree nut allergy are allergic to more than one nut. And while peanuts are actually legumes, approximately 20 to 30 percent of those with a peanut allergy are also allergic to one or more types of tree nuts.[2] In fact, together, peanuts and tree nuts account for 70 to 90 percent of reported food-related anaphylactic fatalities. Prevalence for tree nut allergy varies by age, region, and the definitions used for diagnosis, but it appears to affect 0.05 to 7.3 percent of the population. And unfortunately, compared to other food allergies, the chances of outgrowing these allergies are lower and restricted to an estimated 10 percent of sensitized individuals.[1]

The following nine varieties account for the majority of tree nut allergies: walnuts, almonds, pistachios, cashews, pecans, hazelnuts, macadamias, Brazil nuts, and pine nuts.[1] Derived from a tree that's native to Asia, almonds are edible seeds that are high in fat and protein and contain small amounts of iron, calcium, phosphorus, and vitamins A, B complex, and E. There are two varieties of almonds: bitter and sweet. Bitter almonds are employed for their oil while sweet almonds are often consumed as snacks, used in confectionery baking, and eaten in milk and butter forms.[3] Within tree-nut allergic individuals in the United States, almond allergy is reported in 9 to 15 percent of people. Whereas in the United Kingdom, almonds and walnuts are the most common tree nut allergies in sensitized individuals, and almond allergy prevalence ranges from 22 to 33 percent.[1]

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HOW DO I KNOW IF I'M ALLERGIC?*

Together with your symptom history, skin-prick testing or specific IgE blood testing can help determine if you are allergic to a particular allergen. If you are diagnosed with an allergy, your healthcare provider will work with you to create a management plan.

Please note that allergies can change over time, and 10 to 20 percent of children with peanut and tree nut allergies may outgrow them.[10]

COMMON SYMPTOMS

Tree nut allergy symptoms typically occur within minutes of ingestion and can range from hives to anaphylaxis, a potentially life-threatening reaction that impairs breathing and can send the body into shock.[2,5] In fact, tree nut allergy accounts for 18 to 40 percent of anaphylaxis cases. This severity is particularly problematic because many people can't recognize tree nuts. In one study, for example, only half of participants with a tree nut allergy correctly identified all forms of the nut to which they were allergic.[1]

Tree nut allergy symptoms can include:[4]

- **Abdominal pain, cramps, nausea, and vomiting**
- **Diarrhea**
- **Difficulty swallowing**
- **Itching of the mouth, throat, eyes, skin, or other areas**
- **Nasal congestion, runny nose**
- **Shortness of breath**
- **Anaphylaxis, a potentially life threatening event**

Allergic reactions from tree nuts can also come from cross reactivity to birch pollen in the form of oral allergy syndrome (OAS), aka pollen food syndrome (PFS) and pollen food allergy syndrome (PFAS).[2,6]

Symptoms of OAS can include:[6]

- **Itchy mouth and hives on the mouth**
- **Scratchy throat**
- **Swelling of the lips, mouth, tongue, and throat**
- **Itchy ears**

IS THERE A RISK FOR A SEVERE EVENT?

Symptoms of almond allergy ranges from mild such as oral allergy syndrome (OAS), to more severe reactions including anaphylaxis. Generally, almond is stable to heat and digestion meaning that cooked, roasted, and raw almonds may cause symptoms.[10]

Where is almond found?

While bitter almonds are employed for their oil, which is often used in making flavoring extracts for food and liqueurs, sweet almonds are typically consumed as snacks and used in confectionery baking. Plus, they're roasted and can be eaten in milk and butter forms. Particularly in Europe, almonds are used to make marzipan, a sweet paste used in candy and pastries, but in Asia, almonds are often incorporated into meat, poultry, fish, and vegetarian dishes.[3]

The following items may contain tree nuts and seeds:6 baked goods, baking mixes, barbeque and pesto sauces, cereals, chocolates, pralines, crackers, dressings, gravies, flavored coffees, frozen desserts, muesli, nougats, almond chicken, pad thai, chili and trout amandines and giandujas (i.e., chocolate blended with hazel nuts), marzipans (i.e., almond paste), almond milks, nut milks, tree nut oils, spreads (e.g., cheese spreads and chocolate nut spreads such as Nutella, which contains hazelnuts), vegetarian dishes, Indian curries, Asian dishes, pastas, liqueurs (e.g., amaretto and Frangelico), natural flavorings and extracts (e.g., pure almond extract), salads, trail mixes, and snack foods.

Also note that the words "natural flavors" and "botanicals" may indicate the presences of nuts or nut flavorings.[4] Asian restaurants can be especially problematic because they often use nuts and seeds in their cuisine, and since pans may be used for multiple meal preparations, there's an inherent risk for cross contamination.[7]

Nonfood items that may contain tree nuts include:[6] bean bags, bird seeds, cosmetics, hair care products, sunscreens, massage oils, and pet foods.

Are there other allergens I could be sensitized to?*

Some people with an almond allergy may also experience symptoms when eating other seemingly unrelated foods. This is called cross reactivity and occurs when your body's immune system identifies the proteins, or components, in different substances as being structurally similar or biologically related, thus triggering a response. The most common cross reactivities with almonds are plant foods such as fruits (e.g., apple, peach, pear, kiwi, citrus fruits, grape), berries (e.g., strawberry, raspberry), vegetables (e.g., celery, carrot, tomato, asparagus, lettuce), legumes (e.g., soy, peanut), and nuts (e.g., hazelnut, chestnut).[6]

If you experience an itchy mouth or ears, scratchy throat, hives on the mouth, or swelling of the lips, mouth, tongue, or throat after eating almonds or other related fresh fruits, raw vegetables, or tree nuts, you may suffer from pollen food allergy syndrome (PFAS) also called oral allergy syndrome (OAS). This condition is caused by your immune system's reaction to similar proteins, or components, found in foods and pollens.[5] It is quite common, as one study suggests that up to 25 percent of children with allergic rhinitis (aka hay fever) also suffer from PFAS.[8] Common pollen allergies that could cause OAS when eating almonds include tree (e.g., birch, alder, hazel, oak, hornbeam, beech, olive, plane tree) weeds (e.g., Parietaria, ragweed, mugwort), and grass.[6]

How do I manage my allergy?

Since accidental ingestion of tree nuts and cross contamination between nut species are common, eliminating all tree nuts from your diet simplifies allergy management. But to better determine whether you should avoid all tree nuts or only those to which you're allergic, consult your healthcare provider.[1] He or she also may recommend a plan that includes the following.[9, 11-13]

Allergen avoidance

- Read ingredient labels and "may contain" advisory panels on food and nonfood products carefully, and avoid all foods and products containing any form of the allergen. Note that these lists and panels may not appear on the same side of a product's packaging and that manufacturers frequently change ingredients. If you're unable to obtain a list of ingredients, it's safest to avoid that item.
- Avoid cross contamination when cooking by using two sets of cooking and eating utensils, with one exclusively for the allergic individual. Wash all dishes and utensils in hot soapy water between uses.

How do I manage my allergy?

(continued)

- Craft an action plan with a list of steps for you and others to take should you accidentally ingest the allergen. Print out a copy of the plan and carry it with you.
- Talk with restaurant chefs about your allergy and order food that's simply prepared and void of any form of the allergen. Avoid desserts, as they often contain or have come into contact with food allergens.
- Plan ahead for traveling to ensure your food allergy will be managed and any emergency medication is always available.
- Wear a medical ID bracelet identifying the allergen to which you're allergic.
- Carry any recommended or emergency medication with you at all times.
- Teach children with food allergies which foods to avoid. Work with caregivers and school staff to eliminate or reduce exposure to the allergen and to ensure they understand when and how to use medication to treat symptoms.

Symptom relief

Your health care provider may direct you to take one of the following medications:

- Epinephrine auto-injector when there are signs of an acute severe event, aka anaphylaxis (see below). Ensure your family members know how to administer it in case of an emergency.
- Antihistamines as supplement may be useful in relieving mild symptoms (e.g., itch), however they do not halt the progression of an allergic reaction.
- Bronchodilator (albuterol) is a supplemental therapy for respiratory symptoms, especially in those with a history of bronchospasm or asthma.

Emergency plan

If you're with someone who's having an allergic reaction and shows signs of shock, act fast. Look for pale, cool, and clammy skin; a weak, rapid pulse; trouble breathing; confusion; and loss of consciousness. Do the following immediately:

- Call local emergency services.
- Ensure the affected individual is lying down with legs elevated.
- Administer epinephrine immediately for any obvious signs of anaphylaxis.
- Check the affected individual's pulse and breathing and administer CPR or other first-aid measures if necessary.

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