



WHAT ARE TREE NUTS?

- Tree nuts are nutrient-rich dry fruits that grow on trees and consist of a hard, inedible shell enclosing a seed. They are classified as one of the nine major food allergens. [1]

TYPES OF TREE NUTS

- The list below shows the tree nuts that are supported by substantial scientific evidence for inclusion among those recognized by the FDA as major food allergens. [2]
 - Almond
 - Black walnut
 - Brazil nut
 - California walnut
 - Cashew
 - Filbert (*also known as hazelnut*)
 - Heartnut (*also known as Japanese walnut*)
 - Macadamia nut (*also known as Bush nut*)
 - Pecan
 - Pine nut (*also known as pinon nut*)
 - Pistachio
 - English and Persian walnut

NOT ALL TREE NUTS ARE THE SAME

- Even though they are called “tree nuts,” they are not all the same. Some people are allergic to one kind of tree nut, not all of them. This is important because a person who is allergic to one nut might be able to eat others safely. [3] [4]

HOW ALLERGEN CROSS-CONTACT BETWEEN TREE NUTS OCCURS IN FOOD MANUFACTURING ENVIRONMENTS

- Allergen cross-contact may occur when tree nuts or other allergens are unintentionally introduced into food during processing, handling, or storage, especially when the food is not properly labeled to indicate their presence. This often happens when machines, equipment, or surfaces are not thoroughly cleaned and sanitized.
- Allergen cross-contact risks increase when different types of tree nuts, such as almonds, cashews, walnuts, pecans, hazelnuts, pistachios, and Brazil nuts, are not kept properly separated. Even though all tree nuts are classified as major allergens, they are not always safe substitutes for one another, as individuals may be allergic to one type but not others. Problems also arise when allergen-containing and non-allergen foods, or unlike tree nuts, are processed together without strict separation since allergen cross contact can occur.
- Further risk is introduced if foods are mixed or reworked without proper precautions. If the production schedule doesn't clearly separate allergenic and non-allergenic ingredients, or if employees fail to follow procedures when using shared equipment, allergen cross-contact can occur.
- Employees also play a key role in food safety. Without proper training and clear procedures, the chance of allergen contamination increases significantly. [5]
- **Since not all tree nuts are the same, it's critical for food manufacturing facilities to treat each type as a distinct allergen and to implement robust controls that prevent allergen cross-contact throughout the production process.**



Sources

- [1] P. V. Sarah Campbell, "Tree nut and seed allergy," *ScienceDirect*, pp. 193-207, 2024.
- [2] FDA, "Questions and Answers Regarding Food Allergens, Including the Food Allergen Labeling Requirements of the Federal Food, Drug, and Cosmetic Act (Edition 5): Guidance for Industry," U.S. Department of Health and Human Services Food and Drug Administration Human Foods Program, Maryland, 2025.
- [3] K. Y. W. E. H. K. T. P. M. Olivia L. Francis, "Common food allergens and cross-reactivity," *Journal of Food Allergy*, pp. 17-21, 2020.
- [4] F. A. R. a. Education, "Tree Nut Allergy," 11 06 2025, [Online]. Available: foodallergy.org/living-food-allergies/food-allergy-essentials/common-allergens/tree-nut.
- [5] FDA, "Sec. 555.250 Major Food Allergen Labeling and Cross-contact Draft Compliance Policy Guide," Center for Food Safety and Applied Nutrition (CFSAN), Maryland, 2023.