

Adult Day Care Food Allergy Fact Sheet



Soy Allergies

Soy is a common allergen that often starts in infancy. About 1.9 million people living in the United States have a soy allergy. Most children outgrow soy allergies by the age of 10, but some adults have them. A soy allergy may even develop in adulthood.

What are the symptoms of an allergic reaction?

Knowing the symptoms of an allergic reaction can save a participant's life. One or more allergic symptoms can occur and can be mild to severe. Symptoms can happen within a few minutes or up to a few hours after the food allergen is eaten. Participants can display different symptoms, even if they have the same allergy (e.g., one participant with a soy allergy may have mild nausea when exposed to soy while a different participant with a soy allergy gets hives after consuming it). Each time a participant has a reaction, the symptoms may be different.

It is also important to know the symptoms of an allergic reaction as there is a possibility that a participant may have a reaction yet not have a known food allergy. As shown in the following chart, the Food Allergy Research and Education (FARE) organization details how a variety of symptoms can appear in the body.

Mild Symptoms	Severe Symptoms
<ul style="list-style-type: none">• Gut: mild nausea or discomfort (stomach pain, abdominal cramping)• Mouth: itchy; odd taste; slight, dry cough• Nose: itchy, runny nose; sneezing; congestion• Skin: a few hives (reddish, swollen, itchy areas on the skin), mild itch (sometimes in the ear canal)	<ul style="list-style-type: none">• Body: lightheadedness, fainting or loss of consciousness, anaphylaxis• Gut: repetitive vomiting or severe diarrhea• Heart: pale; turning blue; faint, weak, or “thready” pulse; dizziness; chest pain; drop in blood pressure• Lung: shortness of breath, wheezing, repetitive cough, difficulty breathing• Mouth: significant swelling of the tongue or lips• Psychological: feeling something bad is about to happen, sense of impending doom, anxiety, confusion, feeling weak• Skin: many hives over the body, widespread redness, eczema• Throat: tight, hoarse, trouble breathing/swallowing, swelling

What is anaphylaxis?

Anaphylaxis is a severe allergic reaction with a rapid onset that may cause difficulty breathing and death. It may disrupt breathing and blood circulation. An anaphylactic reaction usually occurs within minutes of being exposed to an allergen, but in some rare instances, it can occur a couple of hours later. Symptoms of anaphylaxis include:

- Difficulty breathing, constriction of airways, tightness of the throat, hoarse voice
- Drop in blood pressure (e.g., pale, weak pulse, confusion, dizziness, fainting, weakness, loss of consciousness)
- Feeling of doom
- Gastrointestinal symptoms (e.g., abdominal pain, nausea, vomiting, diarrhea, cramping)
- Rapid pulse, cardiac arrest
- Shock (i.e., drop in blood pressure and narrowing of airways)
- Skin symptoms (e.g., hives, swelling)
- Swollen lips



What foods contain soy?

Soy can be found in processed foods (e.g., chicken/vegetable broth, bouillon cubes, cereals, and baked goods) as well as many meat and vegetarian entrées. It is important for all adult day care staff who prepare and serve meals to read all ingredient lists on food labels to check for soy to avoid accidental exposure. The following chart lists some food items that often contain soy.

Soybeans and Soybean Products

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|--------------------------------------|---|--------------------------------------|
| • Doenjang (fermented soybean paste) | • Soy fiber | • Soy protein isolate |
| • Edamame (fresh soybeans) | • Soy flour | • Soy sauce |
| • Hydrolyzed soy protein | • Soy granules | • Soy yogurt |
| • Kinako (roasted soybean flour) | • Soy grits | • Soybean sprouts |
| • Koya dofu (freeze-dried tofu) | • Soy ice cream | • Supro® |
| • Miso (fermented soybean paste) | • Soy infant formula | • Tamari (soy sauce variety) |
| • Natto (fermented soybeans) | • Soy lecithin* | • Tempeh (fermented soybean product) |
| • Okara (soy pulp) | • Soy meat | • Teriyaki sauce |
| • Shoyu (soy sauce variety) | • Soy milk | • Textured soy flour (TSF) |
| • Soy/soybean/soya bean | • Soy nut butter | • Textured soy protein (TSP) |
| • Soy albumin | • Soy nuts | • Tofu/bean curd |
| • Soy burgers | • Soy oil* (cold-pressed, expelled, extruded) | • Yaki-dofu (grilled tofu) |
| • Soy cheese | • Soy paste | • Yuba (tofu skin) |
| | • Soy protein | |
| | • Soy protein concentrate | |

Dishes, Foods, and Products That May Contain Soy

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|--|---------------------------------------|--|
| • Artificial flavoring | • Fish or oyster sauce | • Prepared sauces and gravies |
| • Baked goods (breads, cakes, cookies, crackers) | • High-protein energy bars and snacks | • Processed meats (deli and luncheon meats; hot dogs; meat, poultry, or fish with fillers) |
| • Bouillon cubes | • Hydrolyzed vegetable protein (HVP) | • Salad dressings |
| • Breakfast/cereal/energy/granola/protein bars | • Infant formula | • Textured vegetable protein (TVP) |
| • Broth (beef, chicken, vegetable) | • Low-fat peanut butter | • Vegetable gum |
| • Canned goods (broths, soups, tuna, meats) | • Mayonnaise | • Vegetable oil |
| • Cereals | • Meat or chicken substitutes | • Vegetable shortening |
| • Commercial liquid supplements | • Mono- and diglycerides | • Vegetable starch |
| • Enteral nutrition/tube feeding products | • Monosodium glutamate (MSG) | • Worcestershire sauce |
| | • Natural flavoring | |

*Food manufacturing companies are not required to label highly refined soy oil as an allergen, but soy lecithin must be labeled. Research indicates that most people with soy allergies can safely eat highly refined soy oil and soy lecithin. Refer to the participant's medical statement before serving either soy oil or soy lecithin to them.

Where is soy listed on food labels?

Food labels that are regulated by the U.S. Food and Drug Administration (FDA) follow the regulations of the *Food Allergen Labeling and Consumer Protection Act* (FALCPA). FALCPA requires that the major eight food allergens are listed on the label in one of three ways in the ingredient list: (1) using the common name, (2) common name written in parenthesis after the ingredient, or (3) in a "contains" statement. In 2021, the *Food Allergy Safety, Treatment, Education, and Research Act* (FASTER) was passed into law. This act expands what is considered a major allergen that has to be declared on a food label from eight to nine by adding sesame as a major allergen. This law took effect on January 1, 2023.

How cereal that contains soy could be labeled in the ingredient list in different ways is shown in the following examples (bold is used for illustrative purposes only):

Label 1

INGREDIENTS: Whole Grain Wheat, Sugar, Raisins, Almond Pieces, Corn Bran, Partially Hydrogenated Cottonseed, Oil, Corn Syrup, Glycerin, Brown Sugar Syrup, Salt, Soy Lecithin, Natural and Artificial Flavor
CONTAINS: Wheat, Almond, **Soy**

Label 2

INGREDIENTS: Whole Grain Wheat, Sugar, Raisins, Almond Pieces, Corn Bran, Partially Hydrogenated Cottonseed, Oil, Corn Syrup, Glycerin, Brown Sugar Syrup, Salt, Soy Lecithin (**Soy**), Natural and Artificial Flavor

Labels should also be checked for warnings such as "may contain soy," "produced on shared equipment with soy," or "produced in a plant that uses soy in other products." Foods with these advisory statements should be avoided because the product may contain a small amount of soy due to cross-contact.

For example, parmesan cheese may or may not contain soy depending on the recipe. Parmesan cheese could be labeled like below (bold is used for illustrative purposes only):

INGREDIENTS: Parmesan Cheese (milk), Cellulose Powder, Potassium Sorbate, Salt
May contain soy

Ingredients: Sunflower Seed, Sugar, Mono-Diglycerides to prevent separation, Salt, and Natural Mixed Tocopherols to preserve freshness.
Made on equipment that processes soybeans. Processed in a peanut and tree nut free facility.

How should adult day care employees check and manage food labels?

Adult day care sites have a variety of procedures for preparing and serving food. All staff who prepare and serve food should be trained to read product labels and recognize food allergens in the ingredient list. Because food labels change from time to time, adult day care staff should check labels for soy and soy ingredients for every product each time it is received. If the label does not provide clear information, then the manufacturer must be contacted for clarification or a different product should be used. The Centers for Disease Control and Prevention (CDC) recommends that food labels for every product that is served to a participant with food allergies be kept for a minimum of 24 hours afterward in case of a reaction. If the product is saved for later use as leftovers, keep labels for 24 hours after all product has been served or discarded.



What documentation is needed to make substitutions for participant meals?

When meal modifications for a participant with food allergies are outside of the Child and Adult Care Food Program (CACFP) meal pattern, a medical statement from a State licensed healthcare professional or registered dietitian* is required. Refer to the *Modifications to Accommodate Disabilities in the Child and Adult Care Food Program and Summer Food Service Program* on the USDA website for information on the required content of the medical statement. Adult day care sites can also contact their State agencies and sponsors for information. For more information about what is required in the medical statement, refer to ICN's *Adult Day Care Food Allergy Fact Sheet – Common Questions: Adult Day Care Directors*.

If there is uncertainty about the statement, or if it does not provide enough information, contact the State licensed healthcare professional or registered dietitian (as permitted by the participating adult, family, caregiver, or guardian) for clarification. However, the adult day care staff should not delay in providing a meal modification and a safe environment (i.e., prevent exposure to known allergens) while awaiting clarification of the medical statement. Staff should follow the portion of the medical statement that is clear and unambiguous to the greatest extent possible while obtaining the additional information or amended statement.

*The USDA Final Rule - Child Nutrition Programs: Meal Patterns Consistent With the 2020-2025 DGAs defines a State licensed healthcare professional as an individual authorized to write medical prescriptions under State law. The rule also allows registered dietitians to submit medical statements for meal modifications for participants with disabilities. Registered dietitians are not required to have a State license. CACFP operations are required to implement this change by October 1, 2025.

What substitutes can be used for soy in participant meals?

When planning menus for participants with soy allergies, consider current food choices offered to determine if a reimbursable meal can be selected from foods offered that do not contain soy. This approach will minimize the need to prepare special recipes or to make menu substitutions. The following chart lists common menu items that may be used as safe alternatives to items that contain soy. Soy is a common ingredient in many foods. Adult day care staff should always read the ingredient list on food labels carefully, even for foods that generally do not contain soy.

Menu Items That May Contain Soy*	Possible Substitutes*†
Breakfast cereals	Breakfast cereals without soy
Canned fish, canned meats	100% beef, pork, poultry, fish, or shellfish; beans, peas, or legumes
Mixed dishes containing soy sauce, tofu, or other soy-based ingredients	Mixed dishes without soy
Processed meats	100% beef, pork, poultry, fish, or shellfish; beans, peas, or legumes
Salad dressings and sauces (such as soy sauce)	Ketchup, mustard, salad dressings, and sauces that do not contain soy
Vegetable or legume soups	Vegetable or legume soups without soy

*All meals claimed for reimbursement must meet the Child and Adult Care Food Program (CACFP) meal pattern requirements. Please visit <https://www.fns.usda.gov/cacfp/meals-and-snacks> for more information.

†Always review the ingredient list on a food label to verify ingredients and check for possible cross-contact (look for advisory statements or contact manufacturer).

Are soybean oil and soy lecithin safe for people with soy allergies?

It depends. Research indicates that most people with soy allergies can safely consume highly refined soybean oil and soy lecithin. It is always best to check with a healthcare professional first. Highly refined soybean oil is exempt from being labeled as an allergen, but soy lecithin must be labeled.

A physician has stated that soy lecithin is safe for a participant to eat. If soy lecithin is the only soy ingredient on the food label, but soy is listed in the allergen statement, is the product safe to use?

Not necessarily. Because the common name of an allergen in a product is only required by FALCPA to appear once, there may be other soy-derived ingredients in the product that are not listed. All ingredients on the food label need to be reviewed carefully. If there are any questions, the manufacturer should be contacted for additional information.



References

- American College of Allergy, Asthma & Immunology. (2018, January 29). *Anaphylaxis*. <https://acaai.org/allergies/anaphylaxis>
- Asthma and Allergy Foundation of America. (2015, February). *Soy allergy*. <https://www.kidswithfoodallergies.org/page/soy-allergy.aspx>
- Centers for Disease Control and Prevention. (2013). *Voluntary guidelines for managing food allergies in schools and early care and education programs*. www.cdc.gov/healthyyouth/foodallergies/
- Food Allergy Research & Education. (n.d.). *Anaphylaxis*. <https://www.foodallergy.org/resources/anaphylaxis>
- Food Allergy Research & Education. (n.d.). *Recognizing and responding to a reaction*. <https://www.foodallergy.org/resources/recognizing-and-responding-reaction>
- Food Allergy Research & Education. (n.d.). *Recognizing and treating reaction symptoms*. <https://www.foodallergy.org/resources/recognizing-and-treating-reaction-symptoms>
- Food Allergy Research & Education. (n.d.). *Soy allergy*. <https://www.foodallergy.org/living-food-allergies/food-allergy-essentials/common-allergens/soy>
- Food Allergy Research & Education. (2020). *Food allergy facts and statistics in the US*. <https://www.foodallergy.org/resources/facts-and-statistics>
- Food Allergy Research & Education. (2020). *Your food allergy field guide*. <https://www.foodallergy.org/resources/field-guide-english>
- Food Allergy Research & Education. (2021, April 23). *With the stroke of President Biden's pen, FASTER Act for sesame labeling becomes law*. <https://www.foodallergy.org/media-room/stroke-president-bidens-pen-faster-act-sesame-labeling-becomes-law>
- Gupta, R.S., Warren, C.M., Smith, B.M. (2019). Prevalence and severity of food allergies among US adults. *JAMA Network Open*. 2(1):e185630. doi:10.1001/jamanetworkopen.2018.5630
- Mayo Clinic. (2019, September 14). *Anaphylaxis*. <https://www.mayoclinic.org/diseases-conditions/anaphylaxis/symptoms-causes/syc-20351468>
- Mayo Clinic. (2020, March 25). *Soy allergy*. <https://www.mayoclinic.org/diseases-conditions/soy-allergy/symptoms-causes/syc-20377802>
- U.S. Department of Agriculture. (2016, November 29). *Adult meal pattern*. https://fns-prod.azureedge.net/sites/default/files/cacfp/CACFP_adultmealpattern.pdf
- U.S. Department of Agriculture. (2017, June 22). *Modifications to accommodate disabilities in the Child and Adult Care Food Program and Summer Food Service Program*. <https://www.fns.usda.gov/modifications-accommodate-disabilities-cacfp-and-sfsp>



- U.S. Department of Agriculture, Food and Nutrition Service. (2024, April 25). *Final rule - Child nutrition programs: Meal patterns consistent with the 2020-2025 DGAs*. <https://www.fns.usda.gov/cn/fr-042524>
- U.S. Food and Drug Administration. (2018, July 16). *Food Allergen Labeling and Consumer Protection Act of 2004 (FALCPA)*. <https://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/Allergens/ucm106187.htm>
- U.S. Food and Drug Administration. (2021, May 5). *Food allergies*. <https://www.fda.gov/food/food-labeling-nutrition/food-allergies>
- U.S. Library of Congress. (2021). *Summary: S.578 – FASTER Act of 2021*. <https://www.congress.gov/bill/117th-congress/senate-bill/578?q=%7B%22search%22%3A%5B%22S.+578%22%5D%7D&s=1&r=1>

For More Information

Food Allergy Research & Education
www.foodallergy.org

Institute of Child Nutrition
www.theicn.org/foodsafety

U.S. Food and Drug Administration
Food Allergens
www.fda.gov/Food/IngredientsPackagingLabeling/FoodAllergens/default.htm



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