



All About Food Allergens:

Soy

Morgan Cote, NDSU Dietetic Intern

Julie Garden Robinson, Ph.D., R.D., L.R.D,
Professor and Food and Nutrition Specialist

What are the symptoms of a soy allergy?

Soy allergy symptoms occur because the body's immune system identifies the allergen as a threat and triggers a response. Symptoms usually are immediate and result in something as minor as a stomach ache to as severe as anaphylaxis, which can be life-threatening (rare with soy allergy). Other symptoms include skin reactions, swelling, runny nose and diarrhea.

What foods should I avoid if I am allergic to soy?

For a soy allergy, typical ingredients and foods to avoid include:

- Soybeans
- Edamame
- Miso
- Soy bean paste
- Soy cheese
- Soy nut butter
- Soy sauce
- Soy milk
- Soy protein
- Tempeh
- Tofu
- TVP (textured vegetable protein)
- Asian foods
- Vegetable broths

To avoid consuming soy allergens, look for "contains soy" on food labels. A wide range of products may contain soy. You may need to consult a dietitian to help you plan how to maintain adequate nutrition when you are eliminating many foods from your diet.

How much of a soy allergen can cause a reaction?

Consuming a very small amount of the allergen is enough to cause a reaction.

How soon will a reaction start after eating a food?

Symptoms can start right after coming in contact with the allergen, but a reaction may take up to a couple of hours. Sometimes, a second wave of the reaction might occur many hours after the initial contact. This is why people who suffer an allergic reaction should stay in the hospital for four to six hours.

What are businesses/food manufacturers doing to avoid reactions?

Besides the required food allergy statement on labels, many restaurants label their menus and provide food allergen training for their staff.

What is the best treatment for a severe reaction to a food allergy?

Severe reactions require immediate medical intervention, so call 911. Epinephrine is the first-line treatment for anaphylaxis, a rare but severe whole-body allergic reaction that causes severe symptoms, including tightening of the airway. After a food allergy diagnosis is made, your allergist likely will prescribe an epinephrine auto-injector and teach you how to use it.

Recipes

Note: Be sure to check the ingredient statements on food package labels to avoid allergens in these recipes.



Soy Sauce Substitute (Soy-free)

1½ c. chicken or beef broth
3 tsp. balsamic vinegar
2 tsp. molasses
¼ tsp. ground ginger
1 pinch each: white pepper, garlic powder and onion powder
Sea salt to taste

Stir together all ingredients except salt on medium heat. Boil gently for 15 minutes until reduced to about 1 cup. Taste and season with salt.

Makes eight servings. Each serving has 15 calories, 0 g fat, 1 g protein, 2 g carbohydrate, 0 g fiber and 85 mg sodium.



Hot Chocolate (Soy-free and Dairy-free)

1¾ c. coconut milk (or other soy-free milk)
1½ Tbsp. cocoa powder
1 Tbsp. honey

Mix all ingredients in a saucepan and heat over medium-low heat until warmed. Pour into two cups and add more honey if desired.

Makes two servings. Each serving has 80 calories, 1 g fat, 1 g protein, 11 g carbohydrate, 2 g fiber and 230 mg sodium.



Apple Balsamic Vinaigrette (Soy-free)

1 Tbsp. onion, finely chopped
1 clove garlic, minced
¼ c. apple cider
¼ c. apple cider vinegar
½ c. balsamic vinegar
½ tsp. dried basil
¼ tsp. pepper
½ tsp. salt
1 Tbsp. honey or agave nectar
½ c. olive oil

Combine first nine ingredients (onion through honey) in a bowl. Mix for about 30 seconds. Slowly add olive oil in a steady stream. Mix until olive oil has been completely added. Transfer to jar or other container with a lid. Serve with a variety of leafy greens.

Makes eight servings. Each serving has 150 calories, 14 g fat, 0 g protein, 6 g carbohydrate, 0 g fiber and 130 mg sodium.

More Information

Visit the U.S. Department of Agriculture Food and Nutrition Information Center at www.nal.usda.gov/fnic/allergies-and-food-sensitivities.

Key to abbreviations:

c. = cup g = gram
Tbsp. = tablespoon mg = milligram
tsp. = teaspoon

The NDSU Extension Service does not endorse commercial products or companies even though reference may be made to tradenames, trademarks or service names. NDSU encourages you to use and share this content, but please do so under the conditions of our Creative Commons license. You may copy, distribute, transmit and adapt this work as long as you give full attribution, don't use the work for commercial purposes and share your resulting work similarly. For more information, visit www.ag.ndsu.edu/agcomm/creative-commons.

For more information on this and other topics, see www.ag.ndsu.edu

County commissions, North Dakota State University and U.S. Department of Agriculture cooperating. NDSU does not discriminate in its programs and activities on the basis of age, color, gender expression/identity, genetic information, marital status, national origin, participation in lawful off-campus activity, physical or mental disability, pregnancy, public assistance status, race, religion, sex, sexual orientation, spousal relationship to current employee, or veteran status, as applicable. Direct inquiries to Vice Provost for Title IX/ADA Coordinator, Old Main 201, NDSU Main Campus, 701-231-7708, nods.eoaa@ndsu.edu. This publication will be made available in alternative formats for people with disabilities upon request, 701-231-7881.