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## **Education**

### **Soy Allergy**

#### **What is a soy allergy?**

A soy allergy is a reaction by your child's immune system to the protein in soybeans. Our immune systems normally respond to bacteria or viruses that attack the body. With a food allergy, the body's immune system attacks harmless things, such as the proteins found in soybeans. Soy is one of the 8 foods that are responsible for most food allergies in children. The other foods include eggs, cow's milk, peanuts, tree nuts (such as walnuts and cashews), wheat, fish, and shellfish.

Soybeans are in the legume family (kidney beans, lentils, peas, and peanuts). Some people are allergic to more than one type of legume. A soy allergy is most common in infants and is usually noticed by 3 months of age. Most children outgrow this allergy by 2 or 3 years of age.

#### **What are the symptoms of an allergic reaction to soy?**

If you think your child is allergic to soybeans, soy products or any other food, it is important to get a diagnosis from your health care provider or allergist. You should look for the following symptoms, which can range from mild to severe:

- skin reactions such as hives, eczema, acne
- diarrhea, nausea, vomiting, stomach pain, or itching around the mouth
- running nose, wheezing or trouble breathing
- swelling and itching
- fever blisters
- asthma
- fever, weakness
- pink eye (conjunctivitis)

Although rare, it is possible to have an allergic reaction called anaphylactic shock. This is a serious reaction that is sudden, severe, and can involve the whole body. It can cause swelling of the mouth and throat, dangerously lower blood pressure, and trouble breathing. This type of reaction is a medical emergency. It is treated with epinephrine (a medicine that is given by injection). Usually parents or caregivers of children who have severe allergic reactions carry their own shot kits, just in case of emergency.

#### **What kind of formula should I use?**

If your child is only allergic to soy, you can use regular (non-soy) baby formula. However, about half of the children with a slow-onset milk allergy are also allergic to soy. In these cases, you will need to switch to a hypoallergenic formula. There are two types of hypoallergenic formulas.

- Extensively hydrolyzed formulas: The proteins in these formulas have been broken down so that they are more easily digested and less likely to cause a reaction. Brands include Nutramigen, Pregestimil, and Alimentum. Partially hydrolyzed formulas are not a good substitute.
- Elemental formulas: The proteins in these formulas are in the simplest form and are used when hydrolyzed formula continues to cause symptoms. Elemental formulas include Neocate and Elecare.

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#### **What dietary changes do I need to make for my older child?**

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You will need to change the way you shop and prepare foods. The only treatment for a child with a soy allergy is to completely avoid soy and foods that contain soy products. Many foods contain soy, such as baked goods, cereals, sauces, soups and even canned tuna. Eliminating all the products in which soy products are found may lead to vitamin deficiency. It is a good idea to have a pediatric dietitian check your child's diet from time to time.

### **How will this affect my child's diet?**

The first step is to learn to read labels and become familiar with ingredients that contain soy or soy products are present. Avoiding soy can be difficult as soybeans are used in most processed foods found in this country.

### **Foods and ingredients that contain soy**

- Edamame (soybeans)
- Soya
- Soy Milk
- Soy protein
- Soy sauce
- Worcestershire sauce
- Soybean (granules, curd)
- Soy (flour, fiber, albumin, grits, nuts, fruits, sprouts)
- Soy protein as hydrolyzed, concentrate, isolate
- Tofu (soybean curd)
- Tamari
- Tempeh
- Miso

### **Foods that often contain soy** (check label or ask)

- Most Asian Foods (both packaged and served in restaurants)
- Flavoring (natural or artificial)
- Vegetable starch
- Vegetable broth or gum
- Textured vegetable protein (TVP)
- Hydrolyzed plant protein
- Cereals
- Baked goods
- Some infant formulas

Research shows that most people with a soy allergy may safely eat soy lecithin and refined soybean oil. Ask your health care provider if it is okay for your child to have these foods.

### **How can I provide my child with a healthy diet that tastes good?**

Your child can still have a nutritionally complete diet as well as continue to enjoy some kid favorites. The primary nutrients found in soy are protein, calcium, fiber, B vitamins and iron. It is not difficult to provide your child with a nutritious diet, using healthy unprocessed foods from all the food groups. You may need to prepare desserts, such as cookies and cakes from scratch or buy specialty products from the health food section of your grocery store or health food store. There are also Web sites where you can buy specialty foods online (such as <http://www.allergygrocer.com>). To be on the safe side, buy products that have an 800 number for you to call and ask about ingredients.

It is also helpful to get cookbooks for people with food allergies, such as The Food Allergy and Anaphylaxis Network Cookbook. Visit the Web site at <http://foodallergy.org> or call 800-929-4040 to order this cookbook and others.

### **How can I keep my child safe at school?**

- Teach your child not to eat foods unless they are safe. Even young children can grasp this concept, especially once they have gotten sick after eating a particular food.
  - Prepare your child's lunch at home.
  - Talk with teachers and the school administrator about your child's needs. Ask teachers to keep an eye out and explain the situation to other children if needed.
  - Have the teacher call you if there is a special event or party planned so that you can bring a few modified
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- treats that your child enjoys and can share with other kids.
- Make a card that lists foods and ingredients that should be avoided and give one to the teacher. The card can also be helpful to older children in making decisions when out with friends.

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