

Fact Sheet

Soy Allergy



What is soy allergy?

Soy allergy is a reaction which occurs soon after exposure to soy or soy products. It is often but not always due to IgE allergy antibodies against soy proteins. Some patients with allergy to soy do not have IgE allergy antibodies. These patients usually have reactions in the gastrointestinal tract.

How common is soy allergy?

Soy allergy is relatively uncommon compared with peanut, egg or milk allergy. Allergy to soy is most commonly seen in young children with atopic dermatitis. 2-3% of young children may have positive allergy tests to soy (that is, have a reaction to soy); however only a small amount of these (<10%) develop symptoms when exposed to soy. It is common to have a positive allergy test to soy but to not react when exposed to soy. This may occur in children who have an allergy to peanut. It is usually not necessary to avoid soy in this situation and what you should do should be discussed with your doctor.

What are the symptoms of soy allergy?

A common symptom is itching and tingling of the mouth and the lips (oral allergy syndrome). Other symptoms may be hives, nausea, gastrointestinal discomfort, and vomiting or diarrhoea. Occasionally there can be several hours delay between ingestion of a soy product and development of an allergic reaction. More severe reactions with breathing difficulties and a reduction in blood pressure occasionally occur. Delayed reactions to soy which are not due to IgE allergy antibodies can cause a flare of eczema and or bowel symptoms in some children.

Are children with cow's milk allergy usually allergic to soy as well?

No. Only a small amount of children with cow's milk allergy (about 15%) also will have or develop allergy to soy.

How is soy allergy diagnosed?

The presence of allergy IgE antibodies to soy can be confirmed by an allergy skin prick test or a blood test (sometimes called a RAST test). It is important to realise that not every child with a positive allergy test will develop symptoms on exposure to soy product. Children with a soy allergy may not have a positive test. The interpretation of the test should be discussed with your doctor.

Can my child grow out of soy allergy?

Children with soy allergy may grow out of the allergy however sensitisation to soy tends to increase rather than diminish with age. Children with a particular form of soy allergy called food protein induced enterocolitis usually grow out of the allergy by 2-3 years of age. Your doctor will discuss what sort of soy allergy your child has and whether your child is likely to grow out of it. In cases of soy allergy due to IgE allergy antibodies your doctor may see if the allergy is still present by performing allergy tests every 12 months or so.

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Does exposure to soy containing foods promote peanut allergy?

No. There is no good evidence that exposure to soy products increases the risk of developing peanut allergy even though both peanuts and soy are legumes. Soy allergy and peanut allergy may occur in the same patient however other cases of soy allergy are not allergic to peanuts. There is a link between soy and birch pollen allergy.

How do I avoid exposing my child to soy?

Soya beans are used widely in food manufacture. It is important to know where to look for soy in foods and to use common sense and read food labels carefully.

Avoid foods which contain:

- Soya beans
- Soy flour
- Soy milk & soy milk products eg. soy yoghurts, soy cheeses, soy desserts, soy icecream
- Soy bean sprouts
- Tofu (soy bean curd)
- Textured/Hydrolysed vegetable protein (TVP, HVP)
- Fermented products such as:
 - miso (soy bean paste)
 - tempeh
 - soy sauce
 - tamari
 - bean curd
 - teriyaki
 - soy protein isolate

Foods that sometimes (but not always) contain soy include:

- Bread (soy flour is used in many commercial breads).
- Many meat substitutes.

- Unlabelled processed foods eg. takeaway food.
- Flavourings.
- Vegetable broth.
- Vegetable gum.
- Vegetable Starch.
- Chocolates and sweets (check for HVP).
- Soups.
- Mayonnaise type dressings.
- Chocolate flavourings.
- Packaged sauces and gravy mixes.
- Breakfast cereals.
- Crumbed meats, fish.
- Sausages, sausage rolls, frankfurts, pizza.
- Deli meats and salads.
- Bread crumbs.
- Cakes and biscuits.
- Taco shells.

Are all foods made from soy equally allergenic?

No. High levels of some soy allergens may be found in soy milk drinks or in soy powder, lesser amounts in textured soy protein, tofu and soy flakes and no or very low amounts of allergen in fermented products such as soy sauce or miso and in strongly heated products such as roasted soybeans.

What about soy sauce?

Soy sauce is prepared by fermentation which reduces the ability of the food to cause an allergic reaction. Therefore some allergic children may not react to soy sauce yet react to other soy products. Also some soy sauces are actually made from wheat products.

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What about soy in processed foods?

Almost half of soy allergic patients have had an allergic reaction due to ingestion of "hidden" soy. "Hidden" soy allergens are found in foods such as in boiled ham, sausages, cheese puffs, precooked dishes, desserts and gravy

What about foods that may contain traces of soy?

In general the amount of the food required to trigger an allergic reaction is much higher for soy than for peanut. Therefore soy allergic patients are at less risk for allergic reactions to traces of soy in processed foods than are peanut allergic patients.

What is an EpiPen?

EpiPen is an emergency device which injects a dose of adrenaline under the skin. It is used to treat severe reactions to soy product. The drug adrenaline reverses the severe allergic reaction and can be lifesaving.

Should my child carry an EpiPen?

Soy allergy is usually mild; occasionally it can be severe enough to cause anaphylaxis. Such children almost always have positive allergy tests. Children who have experienced anaphylaxis should carry an emergency adrenaline auto-injector (eg EpiPen). The need for children to have an EpiPen

depends on a number of factors which should be discussed with your doctor. Most children with soy allergy will not need to carry an EpiPen because of the soy allergy. **If you do have an EpiPen it is very important that you understand how to use it and that you have a written anaphylaxis action plan provided by your doctor.**

Where can I find more information on the Internet?

- The Australian Society of Clinical Immunology and Allergy (ASCIA) website contains useful information on food allergy written by Australian specialists (www.allergy.org.au).
- The patient support group Anaphylaxis Australia offers valuable updates and tips for dealing with food allergies (www.allergyfacts.org.au).

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This fact sheet is for education purposes only. Please consult with your doctor or other health professional to make sure this information is right for your child.

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