



Sulphites

One of the nine most common
food products causing severe
adverse reactions

Sulphite sensitivity reactions

Severe allergic and sensitivity reactions (e.g. anaphylactic reaction) occur when the body's immune system strongly reacts to a particular allergen protein or irritant. These reactions may be caused by food, insect stings and medications. In Canada, the foods and food products that cause the most severe reactions in hypersensitive people are peanuts, tree nuts, sesame seeds, milk, eggs, fish (including crustaceans and shellfish), soy, wheat and sulphites. Together, these foods make up the nine priority allergens, although sulphites do not cause a true allergic reaction in sensitive individuals, but a sensitivity reaction. However, sulphite-sensitive people may experience similar reactions to those with food allergies. Symptoms range from nausea, abdominal pain and diarrhea to seizures, asthma and even anaphylactic shock. Asthmatic people are most at risk to sulphite sensitivity and severe sulphite reactions.

What are the symptoms of an allergic or sensitivity reaction?

When an allergic or sulphite-sensitive person comes in contact with a specific allergen or sulphite, the symptoms of a reaction may develop quickly and rapidly progress from mild to severe. The most dangerous symptoms include breathing difficulties, a drop in blood pressure or shock, which may result in loss of consciousness and even death. Severe allergic and sensitivity reactions can occur quickly and without warning. A person experiencing an allergic or sensitivity reaction may have **any** of the following symptoms:

- Flushed face, hives or a rash, red and itchy skin
- Swelling of the eyes, face, lips, throat and tongue
- Trouble breathing, speaking or swallowing
- Anxiousness, distress, faintness, paleness, sense of doom, weakness
- Cramps, diarrhea, vomiting
- A drop in blood pressure, rapid heart beat, loss of consciousness



How are food allergies and severe food allergy and sensitivity reactions treated?

Currently there is no cure for food allergies or sulphite sensitivity. The only option is complete avoidance of the specific allergen. Appropriate emergency treatment for a severe food allergy or sensitivity reaction includes an injection of epinephrine (adrenalin), which is available in an auto-injector, such as an EpiPen[®]. Adrenalin must be administered as soon as symptoms of a severe allergic or sensitivity reaction appear. The injection is followed by further treatment and observation in a hospital emergency room. If your allergist has diagnosed you with a food allergy or a sulphite sensitivity and prescribed epinephrine, carry it with you all the time and know how to use it. Follow your allergist's advice on how to use an EpiPen[®].

Frequently asked questions about sulphite sensitivity

What are sulphites?

Sulphites are substances that naturally occur in food and the human body. They are also regulated food additives that are used as preservatives to maintain food colour and prolong shelf-life, prevent the growth of micro-organisms, and to maintain the potency of certain medications. Sulphites are used to bleach food starches (e.g. potato) and are also used in the production of some food packaging materials (e.g. cellophane).

Are sulphites safe to eat?

Yes, for the majority of consumers. However, some sulphite-sensitive people, many of who also have asthma, may react to sulphites with allergy-like symptoms. Sulphites can trigger asthma and symptoms of anaphylactic reaction.

I have a sulphite sensitivity. How can I avoid a sulphite-related reaction?

Avoid all food and products that contain or warn that they "may contain" sulphites and sulphite derivatives as directed by your allergist.

Can I have a sulphite-related reaction even if I do not eat a food or use a product that contains sulphites or sulphite derivatives?

Yes. There have been reported reactions to inhaled sulphites; however, not from food itself. If sulphites and sulphite derivatives are not present in food, a reaction cannot occur. However, sulphites and sulphite derivatives can often be present under different names, e.g., potassium bisulphite. Always read the ingredient list carefully. Do not forget that cross-contamination, e.g., using the same plate that was just used to serve sulphited food, such as pickled vegetables, can also be a potential source of the allergen.

What do I do if I am not sure whether a product contains sulphites or sulphite derivatives?

If you have a sulphite sensitivity, do not eat or use the product. Get ingredient information from the manufacturer.

Avoiding sulphites and sulphite derivatives

Make sure you read product labels carefully to avoid products that contain sulphites and sulphite derivatives. Certain medications, such as an EpiPen[®], contain sulphites, yet are safe for and should be used by sulphite-sensitive people as directed by an allergist. Always ask questions about food preparation, ingredients and the possibility of cross-contamination when eating out and buying food from retail food outlets, e.g., in-store bakeries, shopping centre food outlets. Avoid food and products that do not have an ingredient list and read labels **every time** you shop. Manufacturers may occasionally change their recipes or use different ingredients for varieties of the same brand. Refer to the following list before shopping:

Other names for sulphites

E 220, E 221, E 222, E 223, E 224, E 225, E 226, E 227, E 228
(European names)

Potassium bisulphite/metabisulphite

Sodium bisulphite/dithionite/metabisulphite/sulphite

Sulfur dioxide

Sulphiting agents

Sulphurous acid

Possible sources of sulphites

Alcoholic/non-alcoholic beer, cider, wine
Baked goods, e.g., breads, cookies, pastries, waffles
Bottled lemon and lime juice/concentrate
Canned/frozen fruits and vegetables, e.g., mushrooms, sliced apples, olives, peas, peppers, pickles, pickled onions, tomatoes
Condiments, e.g., coleslaw, horseradish, ketchup, mustard, relish, sauerkraut
Cereal, cornmeal, cornstarch, crackers, muesli
Cross contamination, e.g., containers, utensils
Dressings, gravies, guacamole, sauces, soups, soup mixes
Dried herbs, spices, tea
Dried fruits/vegetables, e.g., apples, apricots, coconut, papaya, peaches, pears, pineapple, raisins, sun dried tomatoes
Fish, including crustaceans and shellfish, e.g., shrimp (fresh/frozen)
Fresh grapes, lettuce
Fruit/vegetable juices, e.g., coconut, grape, sparkling grape, white grape
Gelatin, jams, jellies, marmalade, molasses, pectin
Glazed/glacéed fruits, e.g., apples, grapes, maraschino cherries
Potatoes, e.g., dehydrated, mashed, peeled, pre-cut
Processed foods, e.g., cheese, deli meats, frozen french fries, frozen dough, hot dogs, mincemeat, sausages
Snack foods, e.g., candy, chocolate/fruit bars, tortilla/potato chips, soft drinks, trail mix
Soy products
Starches, e.g., corn, potato, sugar beet; noodles, rice mixes
Sugar syrups, e.g., glucose, glucose solids, syrup dextrose
Tomato paste/pulp/puree
Vinegar, wine vinegar

Non-food sources of sulphites

Bottle sanitizing solution for home brewing

Note: These lists are not complete and may change. Food and food products purchased from other countries, through mail-order or the Internet, are not always produced using the same manufacturing and labelling standards as in Canada.

What can I do?

Be informed

See an allergist and educate yourself about food allergies.
Contact your local allergy association for further information.

If you or anyone you know has food allergies or would like to receive information about food being recalled, sign up for the Canadian Food Inspection Agency's (CFIA) free e-mail "Allergy Alerts and Food Recalls" subscription service available at www.inspection.gc.ca. When you sign up you will automatically receive food recall public warnings.

Before eating

Allergists recommend that if you do not have your EpiPen[®] with you, that you not eat. If an ingredient list says a product "may contain" or "does contain" sulphites or sulphite derivatives, do not eat. If you do not recognize an ingredient or there is no ingredient list available, avoid the product.



What is the Government of Canada doing about food allergens?

The Government of Canada is committed to providing safe food to all Canadians. The CFIA and Health Canada work closely with municipal, provincial and territorial partners and industry to meet this goal.

The CFIA enforces Canada's labelling laws and works with associations, distributors, food manufacturers and importers to ensure complete and appropriate labelling of all foods. The CFIA recommends that food companies establish effective allergen controls to minimize the potential for allergic reactions. When the CFIA becomes aware of a potential serious hazard associated with a food, such as undeclared allergens, the food product is recalled from the marketplace and a public warning is issued.

The *Food and Drug Regulations* require that most pre-packaged foods carry a label and that their ingredients appear in a list in decreasing order of proportion. However, they do not currently require components (e.g. ingredients of ingredients) of certain foods and products, such as flavouring, seasoning, spices and vinegar, to be listed on food labels.

Health Canada has worked with the medical community, consumer associations, and the food industry to enhance labelling requirements for priority allergens, gluten sources and sulphite in pre-packaged foods sold in Canada. These regulations would require that the most common food and food ingredients that cause life-threatening or severe allergic reactions are always identified by their common names that consumers can easily recognize on food labels.

The Government of Canada is committed to providing safe food to all Canadians. The CFIA and Health Canada work closely with municipal, provincial and territorial partners and industry to meet this goal.

Where can I get more information?

For more information on food allergies and to subscribe to the free "Allergy Alerts and Food Recalls" e-mail subscription service, contact the CFIA at www.inspection.gc.ca or **1 800 442-2342** (8:00 am to 4:00 pm local time – Monday to Friday).

For information on this and other Government of Canada programs and services call **1 800 O-Canada** (**1 800 622-6232**) **TTY 1 800 465-7735**

Below are some of the organizations that can provide additional allergy information:

Allergy/Asthma Information Association www.aaia.ca
(English only)
Anaphylaxis Canada www.anaphylaxis.ca (English only)
Association Québécoise Des Allergies Alimentaires
www.aqaa.qc.ca (French only)
Canadian Society of Allergy and Clinical Immunology
www.csaci.medical.org (English only)
Health Canada www.hc-sc.gc.ca

Developed in consultation with the Allergy/Asthma Information Association, Anaphylaxis Canada, Association Québécoise Des Allergies Alimentaires, the Canadian Society of Allergy and Clinical Immunology and Health Canada.