

Sulfite Sensitivity

Frequently Asked Questions (FAQ)

1. What is the main use of sulfites?

Sulfites are used as preservatives in some drinks, foods and medications. Low levels of natural sulfites are also found in many foods. Sulfites release sulfur dioxide gas, which is the active component that helps preserve drinks, foods and medications.

Sulfites have been used since Roman times to preserve food flavour and colour, inhibit bacterial growth, reduce food spoilage, and help preserve medications.

2. Are sulfites the same as sulphites?

Yes, and this document uses spelling according to the Australian Therapeutic Goods Administration (TGA) approved terminology for medicines (1999).

The TGA approved terms are sulfur, sulfite, sulfate, and sulfonamide, which replace sulphur, sulphite, sulphate and sulphonamide.

3. What types of adverse reactions are caused by sulfites?

Asthma symptoms are the most common adverse reactions caused by sulfites:

- Wheezing, chest tightness and coughing are estimated to affect 5-10% of people with asthma.
- Symptoms are more likely when asthma is poorly controlled.
- Adverse reactions to sulfites can occasionally occur when there is no preceding history of asthma.

Sulfites can also cause allergy like reactions (intolerances), with symptoms such as wheezing in people with asthma, allergic rhinitis (hay fever), and urticaria (hives).

In very rare cases it is possible that sulfites may have caused anaphylaxis, the most severe type of allergic reaction. Symptoms include flushing, fast heartbeat, wheezing, hives, dizziness, stomach upset and diarrhoea, collapse, tingling or difficulty swallowing.

Many of these reactions when fully assessed have been found not to be anaphylaxis, or caused by triggers other than sulfites.

4. What are the mechanisms for adverse reactions to sulfites?

Mechanisms for adverse reactions can vary, and include:

- Reflex contraction of the airways caused by inhaling sulfur dioxide. This mechanism may explain the rapid onset of symptoms when drinking liquids like beer or wine, when sulfur dioxide is inhaled during the swallowing process.
- A partial deficiency of the enzyme sulfite oxidase (which helps to break down sulfur dioxide), in some people with asthma who react to sulfites.
- Other mechanisms yet to be fully understood.

5. Is sensitivity to sulfites is a different condition from sulfonamide antibiotic allergy?

Yes. Allergic reactions to sulfonamide antibiotics are very different to sulfite sensitivity. To read more go to www.allergy.org.au/patients/drug-allergy/sulfonamide-antibiotic-allergy

6. Do people who react to sulfites need to avoid sulfates or sulfur?

No. Some medications have a sulfate component (such as morphine sulfate), and most soaps and shampoos contain compounds such as sodium lauryl sulfate. These are not usually allergenic and do not cause reactions in sulfite-sensitive people. Elemental sulfur which is used in gardening may cause difficulty breathing if inhaled but is not usually a specific problem for sulfite-sensitive people.

7. How is suspected sulfite sensitivity diagnosed?

There is currently no reliable blood or skin allergy test for sulfite reactions. A food challenge under supervision of a clinical immunology/allergy specialist may confirm or exclude sensitivity.

8. What drinks and foods contain sulfites?

Sulfites preserve many drinks and foods. In many countries it is illegal to add sulfites to foods like fresh salads or fruit salads, or to meats like minced meat or sausage meat. The addition of sulfites to beer and wine is permitted in most countries.

The following is a list of the most common sources of accidental exposure to sulfites.

	Common sources
Drinks	Cordials, fruit juices, beer, wine, soft drinks, instant tea.
Other liquids	Commercial preparations of lemon and lime juice, vinegar, grape juice.
Commercial foods	Dry potatoes, gravies, sauces, fruit toppings, maraschino cherries, pickled onions, Maple syrup, jams, jellies, biscuits, bread, pies, pizza dough.
Fruit	Dried apricots, and sometimes grapes will be transported with sachets of the sulfite containing preservative. Dried sultanas do not normally contain sulfites.
Salads	Restaurant may add sulfites to preserve the colour of salads and fruit salads.
Crustaceans	Sulfur powder may be added on top of crustaceans to stop them discolouring.
Meat	Sulfites are sometimes added illegally to mincemeat or sausage meat.
Other foods	Gelatin*, coconut.

*Gelatin is used in some medications, and trace sulfite residues from gelatin in medications may cause adverse reactions. Allergic reactions to gelatin can also occur in people with mammalian meat allergy (MMA).

9. How can the presence of sulfites be recognised on labelled foods?

By Australian law, the presence of sulfites must be indicated on the label by code numbers 220 to 228, or the word sulfite, as shown in the following table.

Code number	Ingredient
220	Sulphur dioxide
221	Sodium sulfite
222	Sodium bisulfite
223	Sodium metabisulfite
224	Potassium metabisulfite
226	Calcium sulphite
227	Calcium bisulfite
228	Potassium bisulfite

10. Are low or no sulfite wines and beers available?

Some wine makers and brewers in Australasia produce wines and beers which state that they do not add sulfites.

However, there are many technical reasons related to wine making and brewing, which may mean that very low levels of sulfites are still present, even when not deliberately added.

Sulfites are generally found at higher levels in cask wine than bottled wine, and are at much higher concentrations in white wine than red wine, which is preserved by natural tannins.

11. What types of medications contain sulfites?

Sulfites are used as preservatives in some medications, as shown in the following table.

Administration method	Medications
Topical medications	Some eye drops and creams.
Oral medications	Some oral medications contain gelatin, and trace sulfite residues from gelatin in medications may cause adverse reactions. Allergic reactions to gelatin can also occur in people with mammalian meat allergy (MMA).
Injected medications	<p>The most common sources of sulfites from injected medications are:</p> <ul style="list-style-type: none"> • adrenaline (epinephrine), isoprenaline, phenylephrine. • dexamethasone and some other injectable corticosteroids. • dopamine. • local and dental anaesthetics containing adrenaline. • aminoglycoside antibiotics. <p>In people with sulfite sensitivity, the benefit of adrenaline to treat anaphylaxis is considered to outweigh any theoretical risk from sulfites in an emergency.</p>

12. How is sulfite sensitivity managed?

Strategy	Effectiveness
Avoidance	Reduce sulfite exposure where possible.
Optimise control of Asthma	<p>People with asthma, including those with sulfite sensitivity should:</p> <ul style="list-style-type: none"> • Use asthma medications as advised by their doctor. • Be referred to a clinical immunology/allergy specialist if they have a severe reaction.

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