

## Sulfite Sensitivity

### Frequently Asked Questions

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This document uses spelling according to the Australian Therapeutic Goods Administration (TGA) approved terminology for medicines (1999), in which the terms sulfur, sulfite, sulfate and sulfonamide replace sulphur, sulphite, sulphate and sulphonamide.

#### **Q 1: What are sulfites?**

Sulfites release sulfur dioxide gas (SO<sub>2</sub>), which is the active component that helps to preserve some foods, drinks and medications. Sulfites have been used throughout history to preserve food flavour and colour and inhibit bacterial growth. Low levels of natural sulfites are also found in many foods.

#### **Q 2: What types of adverse reactions are caused by sulfites?**

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

- About 5-10% of people with asthma can get wheezing, chest tightness and cough.
- Symptoms are more likely when asthma is poorly controlled.
- Adverse reactions to sulfites can still occur even when someone has never had asthma.

Sulfites can also cause intolerances which are not allergies, but can sometimes be confused with allergy. Intolerances may cause 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. Many of these reactions have been found not to be anaphylaxis or they have been caused by triggers other than sulfites. Symptoms of anaphylaxis include flushing, fast heartbeat, wheezing, hives, dizziness, stomach upset and diarrhoea, collapse, tingling or difficulty swallowing.

#### **Q 3: What causes adverse reactions to sulfites?**

The causes of adverse reactions to sulfites can vary:

- Inhaling SO<sub>2</sub> may cause the airways to narrow. This may be why people can get rapid onset of symptoms when drinking beer or wine, as they would inhale SO<sub>2</sub> when drinking.
- Some people with asthma may not have enough of an enzyme, called sulfur oxidase that helps to break down SO<sub>2</sub>.
- Other causes are yet to be fully understood.

#### **Q 4: Is sensitivity to sulfites a different condition from sulfonamide antibiotic allergy?**

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](http://www.allergy.org.au/patients/drug-allergy/sulfonamide-antibiotic-allergy).

## ASCIA INFORMATION FOR PATIENTS AND CARERS

### Q 5: Do people who react to sulfites need to avoid sulfates or sulfur?

People who react to sulfites do not need to avoid sulfates or sulfur. Some medications have a sulfate component (such as morphine sulfate), and most soaps and shampoos contain compounds such as sodium lauryl sulfate. These do not cause reactions in sulfite-sensitive people. Elemental sulfur which is used in gardening may cause difficulty breathing if inhaled but this is not only a problem for sulfite-sensitive people.

### Q 6: How is sulfite sensitivity diagnosed?

A food challenge under supervision of a clinical immunology/allergy specialist may be used to diagnose sulfite sensitivity. There are currently no reliable blood or skin allergy test for sulfite reactions.

### Q 7: What drinks and foods contain sulfites?

In many countries it is illegal to add sulfites to certain foods like fresh salads or fruit salads, or to meats like minced meat or sausage meat. Adding 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
<b>Drinks</b>	Cordials, fruit juices, beer, wine, soft drinks, instant tea.
<b>Other liquids</b>	Commercial preparations of lemon and lime juice, vinegar, grape juice.
<b>Commercial foods</b>	Dried potatoes, gravies, sauces, fruit toppings, maraschino cherries, pickled onions, maple syrup, jams, jellies, biscuits, bread, pies, pizza dough.
<b>Fruit</b>	Dried apricots. Sometimes grapes will be transported with sachets of preservatives containing sulfite. Dried sultanas do not normally contain sulfites.
<b>Salads</b>	Restaurant may add sulfites to preserve the colour of salads and fruit salads.
<b>Crustaceans</b>	Sulfur powder may be added on top of crustaceans to stop them discolouring.
<b>Meat</b>	Sulfites are sometimes added illegally to mincemeat or sausage meat.
<b>Other foods</b>	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.

### Q 8: How are sulfites labelled on foods in Australia?

When a product contains sulfites the label must have code numbers 220 to 228, or the word sulfite:

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

**Q 9: Are there beers and wines with low or no sulfite?**

Some wine makers and brewers in Australasia produce wines and beers which state that they do not add sulfites. Because of how wine and beer is made, very low levels of sulfites are still present, even when they are not deliberately added.

Sulfites are generally found at higher levels in cask (boxed) wine than bottled wine and are at higher concentrations in white wine than red wine.

**Q 10: What types of medications contain sulfites?**

Sulfites are used as preservatives in some medications. The table below lists examples of these.

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.
Injected medications	<ul style="list-style-type: none"> <li>• Adrenaline (epinephrine), isoprenaline, phenylephrine.</li> <li>• Dexamethasone and some other injectable corticosteroids.</li> <li>• Dopamine.</li> <li>• Local and dental anaesthetics containing adrenaline.</li> <li>• Aminoglycoside antibiotics.</li> </ul> <p><b>In people with sulfite sensitivity, the benefit of adrenaline to treat anaphylaxis is considered to outweigh any theoretical risk from sulfites in an emergency.</b></p>

**Q 11: 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"> <li>• Use asthma medications as advised by their doctor.</li> <li>• Be referred to a clinical immunology/allergy specialist if they have a severe reaction.</li> </ul>

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Content updated August 2024

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