

Wheat Allergy: The Facts

There are different types of allergy and intolerances to wheat – here we focus on immediate wheat allergy. Reactions can range from mild to serious so speak to your GP if you think you or your child has had a reaction to wheat. They can help you get a diagnosis.

What is immediate wheat allergy?

Immediate wheat allergy is a type of food allergy where the body's immune system wrongly identifies one or more of the proteins in wheat as a threat and produces an immune response. This results in chemicals, such as histamine, being released. It is these chemicals that result in allergic symptoms.

Symptoms usually come on quickly and can range from mild to serious.

Most people with an immediate wheat allergy have symptoms when they eat foods made with wheat, but some people may have a reaction after touching wheat or breathing it in. For example, when baking with flour which gets into the air, although this is rare.

Is wheat allergy a gluten allergy?

Gluten is one of many proteins found in wheat. If you are allergic to wheat, you may react to gluten, but you may react to other proteins, or a combination.

What is wheat dependent exercise-induced anaphylaxis (WDEIA)?

Wheat dependent exercise-induced anaphylaxis (WDEIA) is a type of immediate allergy to wheat that only happens if you exercise around the same time as eating wheat. This is a complex condition and needs to be diagnosed by an allergy specialist.

What are the symptoms of wheat allergy?

The symptoms of an immediate wheat allergy usually start within minutes of eating wheat.

Mild to moderate symptoms may include:

- a red raised itchy rash (known as hives or urticaria) anywhere on the body
- swelling of the face, lips and/or eyes
- a tingling or itchy feeling in the mouth
- mild throat tightness
- stomach pain, vomiting or diarrhoea

More serious symptoms

More serious symptoms are often referred to as the ABC symptoms and can include:

- **AIRWAY** - swelling in the throat, tongue or upper airways, hoarse voice, difficulty swallowing.
- **BREATHING** - sudden onset wheezing, breathing difficulty, noisy breathing, persistent cough.
- **CIRCULATION** - dizziness, feeling faint, sudden sleepiness, confusion, pale clammy skin, loss of consciousness or collapse.

The term for this more serious reaction is **anaphylaxis** (ana-fil-ax-is).

Most healthcare professionals consider an allergic reaction to be anaphylaxis when it involves difficulty breathing or affects the heart rhythm or blood pressure. Any one or more of the ABC symptoms above may be present.

In extreme cases there could be a dramatic fall in blood pressure. The person may become weak and floppy and may have a sense of something terrible happening. Any of the ABC symptoms may lead to collapse and unconsciousness and, on rare occasions, can be fatal.

[Read more about anaphylaxis.](#)

What can mean you are at higher risk of having a serious reaction to wheat?

Some clues that you might be at higher risk of more serious reactions are:

- you have already had a serious reaction, with any of the ABC symptoms
- you have asthma, especially if it is not well controlled
- you have reacted to a tiny amount of wheat.

If you have asthma and it is not well controlled, this could make an allergic reaction worse. Make sure you discuss this with your GP or allergy specialist and take any prescribed medicines.

Treating symptoms

If you have mild allergic symptoms, you may be prescribed antihistamine medicine that you take by mouth. But if you are at risk of a serious allergic reaction (anaphylaxis), you may be prescribed adrenaline – the emergency medicine used to treat anaphylaxis. It is also known as epinephrine.

Because anaphylaxis can happen very quickly, adrenaline is available in different forms that are designed to be easy to use. It's important to know exactly how and when to use your prescribed adrenaline. Healthcare professionals can show you how to use it, and there are also resources such as practice devices and videos on manufacturer websites.

Options currently available on prescription in the UK include:

- **Adrenaline auto-injectors (AAIs)** – such as EpiPen and Jext.
- **Intranasal adrenaline** – EURneffy, a needle-free nasal spray.

You must carry two in-date forms of prescribed adrenaline at all times as a second dose may be needed if symptoms do not improve after five minutes or get worse.

[Find out more about what to do in an emergency.](#)

[Find out more about adrenaline.](#)

Other types of hypersensitivity to wheat

There are a number of other conditions that cause reactions to wheat, including those listed below. If you or your child has symptoms you believe are brought on by eating wheat, visit your GP as soon as possible as it's important to find out which condition is causing them. There may also be a cause other than wheat.

- **Delayed wheat allergy** – also known as non-IgE mediated wheat allergy. This type of reaction involves the immune system but does not involve IgE antibodies.

Symptoms appear hours or days after eating wheat and usually include skin rashes, worsening of eczema, or gastrointestinal symptoms such as bloating, gas, tummy pain or loose stools.

- **Allergy to wheat protein isolates** – a very rare type of allergy to an ingredient known as ‘wheat protein isolate’ or ‘deamidated wheat’. This is often added to pasta and pizza dough and is used to add protein to nutrition bars, granola bars, cereal coatings, baked goods and meat substitutes. If you have unexplained reactions to these foods, but you can eat some breads and other foods containing wheat, you may have this type of wheat allergy.
- **Coeliac disease** – an autoimmune condition where eating foods containing gluten causes your immune system to attack its own tissues. This can damage the lining of the small bowel which causes pain, digestive problems and long-term nutrient deficiencies.
- **Wheat ‘intolerance’** – this can be due to being sensitive to the proteins or carbohydrate in wheat. It does not involve the immune system. Symptoms usually include digestive problems including discomfort, diarrhoea and bloating.
- **Food Protein Induced Enterocolitis Syndrome (FPIES)** – this condition can cause severe vomiting for several hours after eating wheat, which will happen every time you eat wheat. It needs to be diagnosed at an allergy clinic as the specialist will need to rule out immediate wheat allergy.

Getting a diagnosis

If you think you may be allergic to wheat, see your GP who can refer you to a specialist allergy clinic if needed. They can find a clinic in your area from the [British Society for Allergy and Clinical Immunology \(BSACI\)](#).

If your symptoms are not immediate (they come on some time after eating wheat), ask your GP to refer you to a dietitian. They can tell you if you need to avoid wheat completely or if it’s OK to eat small amounts.

If you are referred to an allergy clinic, the consultant will discuss your medical history and symptoms with you. They might suggest skin prick tests, blood tests, and food challenge tests to help diagnose the allergy and work out how serious it may be. Other types of allergy testing such as IgG, kinesiology and hair analysis are not recommended.

Hay fever and wheat allergy

Many people with an allergy to grass pollen will have a positive skin test to wheat, as wheat and grass pollen contain some of the same proteins. This doesn't necessarily mean you are allergic to wheat, especially if you can eat wheat without having any symptoms. Don't cut wheat out of your diet based on this type of test unless your healthcare professional advises you to.

[Read more about allergy testing.](#)

Preparing for your appointment

It can be helpful to keep a diary of all the reactions or symptoms you have after eating.

Make a note of:

- what you ate
- how much you ate
- what symptoms you had
- how quickly the symptoms came on
- any treatments you used and if they worked.

Keeping a food and symptom diary like this will help your allergy specialist or dietitian make a diagnosis.

Can wheat allergy be outgrown?

Wheat allergy is most common in children and is usually outgrown in the pre-school years. If your child has an immediate wheat allergy it is important that they have regular reviews with their allergy clinic. Don't try to reintroduce wheat into your child's diet at home without the advice of an allergy specialist, even if you think they've outgrown their allergy.

Avoiding wheat

Once you have been diagnosed with immediate wheat allergy, you will need to avoid wheat and foods that contain it.

Read the ingredient lists on food packets carefully every time you shop. Wheat (and other cereals containing gluten) are included in the list of top 14 major food allergens in the UK. This means it must be highlighted on ingredients labels, in bold for example.

Read the ingredient list every time you buy a product as manufacturers change their recipes often.

When eating out

Restaurants, cafes, hotels, takeaways and other catering businesses are required by law to provide information on major allergens, including wheat. Ask staff directly if the food you'd like to buy contains wheat and if there is a risk of cross contamination and let them know that even small quantities can cause a reaction. Don't be afraid to ask staff to check with the chef.

[Read about shopping and preparing food.](#)

Which foods can contain wheat?

This list covers many foods that usually contain wheat. There may be others which could be unexpected, so always check the label.

- Many processed foods such as stock cubes, gravy, salad dressings, sauces, soups, Yorkshire pudding, ready meals, burgers and frozen chips.
- All types of bread including rolls, malt bread, chapatti, pitta, naan, paratha, croissants, soda bread and speciality breads. Look out for wheat-free options.
- Wheat-based breakfast cereals, including anything with wheat or bran in the name.
- Pasta made with wheat or semolina/durum wheat semolina. Look out for foods that contain pasta including soups such as minestrone.
- Couscous, rusks, pizza, spelt, bulgar wheat and semolina. These are all made with wheat.
- Desserts and baked goods such as cakes, crackers, pastries, ice cream wafers and cones, biscuits, doughnuts and batter.
- Hydrolysed vegetable protein (HVP) can be derived from wheat and is used to give a savoury flavour to products such as sauces, soups and gravies.
- Modified wheat starch.
- Beers can contain cereals, including wheat.
- Dried yeast often contains wheat.

- Confectionery.

Do I need to avoid anything else?

Play dough often contains wheat, so make your own using wheat free flour.

Can I eat 'gluten-free' foods?

Food labelled 'gluten free' such as gluten-free bread and pasta are not always suitable for people with wheat allergy. This is because they may contain wheat starch. Even though it is gluten free, it could still contain other proteins you are allergic to.

If you have an immediate wheat allergy, you will need to make sure any gluten free foods you eat are also wheat free. If you are eating foods prepared by other people, make sure they know that the food needs to be wheat free rather than gluten free only.

Key messages

- If you think you may have a wheat allergy, visit your GP.
- Check food labels carefully for wheat and wheat proteins and question staff in restaurants, takeaways and anywhere you eat out of home.
- If you are prescribed adrenaline, make sure you know how to use it and carry two devices with you at all times.
- Make sure those around you know how to spot and treat the signs of anaphylaxis.
- If you have asthma, make sure it is well controlled.

Feedback

Please help us to improve our information resources by sending us your feedback at: -

<https://www.anaphylaxis.org.uk/information-resources-feedback/>

Sources

All the information we produce is evidence based or follows expert opinion and is checked by our clinical and research reviewers. If you wish to know the sources we used in producing any of our information products, please contact info@anaphylaxis.org.uk and we will gladly supply details.

Reviewer

The content of this factsheet has been peer-reviewed by Tanya Wright, Specialist Allergy Dietitian, Guys and St Thomas' Hospital and The Hillingdon Hospitals NHS Foundation Trust.

Disclosures

We are not aware of any conflicts of interest in relation to the review of this factsheet.

Disclaimer

The information provided in this factsheet is given in good faith. Every effort is taken to ensure accuracy. All patients are different, and specific cases need specific advice. There is no substitute for good medical advice provided by a medical professional.

About Anaphylaxis UK

Anaphylaxis UK is the only UK-wide charity solely focused on supporting people at risk of serious, life-threatening allergic reactions. We provide information and support to people living with allergies through our free national helpline. We also fundraise to achieve our ultimate aim, to create a safer environment for all people at risk of serious allergies. Visit our website www.anaphylaxis.org.uk and follow us to keep up-to-date with our latest news. We're on Facebook @anaphylaxisUK, LinkedIn, Instagram @anaphylaxisUK, Twitter @AnaphylaxisUK and YouTube.