

Allergy to Fish: The Facts

There are many varieties of fish available in the UK and all are capable of causing allergic reactions. Find out about the symptoms, getting a diagnosis and how to manage your allergy.

What is fish allergy?

Fish allergy is a type of food allergy. Food allergy occurs when the body's immune system wrongly identifies a food as a threat. When this happens, the body releases chemicals, such as histamine, in response. It is the release of these chemicals that causes symptoms.

Fish allergy refers to fish that have fins such as cod, plaice, haddock, herring, trout, salmon and tuna – as opposed to shellfish – and all types have the potential to cause allergic reactions. People who are allergic to one type of fish have a high chance of reacting to others as they contain similar proteins.

Allergy to fish often begins in childhood and may be lifelong. Some children outgrow their fish allergy but it's not clear how likely this is to happen or at what age. Some research suggests it's fairly common for children to outgrow their allergy in their teens. Fish allergy can also begin in adulthood.

What are the symptoms of fish allergy?

The symptoms of fish allergy usually come on quickly, within minutes of eating the food.

Mild to moderate symptoms may include:

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

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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 (tightening of the throat, hoarse voice, difficulty swallowing).
- BREATHING sudden onset wheezing, breathing difficulty, noisy breathing.
- CIRCULATION dizziness, feeling faint, sudden sleepiness, tiredness, confusion, pale clammy skin, loss of consciousness.

The term for this more serious reaction is **anaphylaxis** (anna-fill-axis).

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.

Reactions to breathing in fish vapour

If you have an allergy to fish there is a chance you may have symptoms when you breathe in the vapours while fish is being cooked. This is because cooking causes the proteins that cause the allergic reactions to be released into the air. Fish proteins have also been found in the air in places where there is a lot of unpackaged fish, such as fish markets.

Not everyone with an allergy to fish reacts to breathing in fish proteins. It can be hard to know if you would have a reaction or how serious your symptoms would be. Make sure you discuss this with your allergy specialist.

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Reactions to touching fish

Touching fish or fish products may cause skin irritation, itching or redness in some people with a fish allergy. Touching fish is unlikely to cause anaphylaxis. However, the risk of a reaction from touch could be increased if you have open cuts or wounds on your skin. Avoid touching fish and wash your hands thoroughly with soap and water if you do come into contact with fish.

Seafood workers

If you work in the seafood industry, you are more at risk of developing an allergy to fish because you will be breathing in or touching fish proteins on a regular basis.

Symptoms include:

- asthma
- skin rashes
- symptoms affecting the eyes, nose and throat (known as rhinitis) such as coughing or an itchy, runny nose or eyes
- conjunctivitis, where your eyes are red and sore.

Getting a diagnosis

If you think you may be allergic to fish, see your GP who can refer you to a specialist allergy clinic if needed. They can find a clinic in your area from the <u>British Society for</u> <u>Allergy and Clinical Immunology (BSACI).</u>

It's important to get a referral if your symptoms were serious. If symptoms are mild, then your GP may be able to arrange testing with a blood test to confirm the diagnosis.

If you get a referral, the consultant will discuss your medical history and symptoms with you. They might suggest skin prick tests, blood tests and, if needed, food challenge tests to help diagnose the allergy and work out how serious it may be.

Read more about allergy testing.

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What can mean you're at higher risk?

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 fish.

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. If you are at higher risk of anaphylaxis, you may be prescribed adrenaline to use in an emergency.

Adrenaline comes in pre-loaded adrenaline auto-injectors (AAIs) that are designed to be easy to use. Make sure you know how and when to use them. Ask your healthcare professional to show you how to use your specific brand of AAI. You can also find help and training videos on the manufacturer's website and get a free trainer device to practise with.

The adrenaline auto-injectors prescribed in the UK are:

- <u>EpiPen</u>
- <u>Jext</u>

You must carry two AAIs with you at all times, as you may need to use a second one if your symptoms don't improve after five minutes or get worse.

Read more about what to do in an emergency.

Avoiding fish

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Once you have been diagnosed with a fish allergy, you will probably be advised to avoid all fish (raw and cooked) and foods that contain it. This is because all fish contain similar proteins. There is also a high chance of cross-contamination, where one type of fish is contaminated with proteins from another. For example, in fish markets or supermarket counters where different types of fish are in close contact with each other.

Read the ingredient lists on food packets carefully every time you shop. Fish is 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 fish. Ask staff directly if the food you'd like to buy contains fish and if there is a risk of cross-contamination. Let them know that even small quantities can cause an allergic reaction and don't be afraid to ask staff to check with the chef.

Remember that everyday meals such as shepherd's pie might contain fish as they sometimes contain Worcestershire sauce, which is made with anchovies.

Read about shopping and preparing food.

Allergy to shellfish (crustaceans and molluscs)

If you are allergic to fish, you don't have a higher risk of allergy to shellfish such as crustaceans (including shrimp, prawns, crayfish lobster and crab) and molluscs (including squid, octopus, scallops and oysters). This is because they contain different proteins.

Sometimes people are allergic to both, but this is probably a coincidence rather than crossreactivity – where the proteins in one food are similar to the proteins in another.

Read more about Shellfish allergy

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Foods that often contain fish

- **Fish sauce** is often used in multicultural cuisines, especially Indonesian, Thai, African, Chinese, and Vietnamese.
- **Caesar salad** and Caesar dressings sometimes contain anchovies.
- Worcestershire Sauce contains anchovies.
- **Scampi** is sometimes made with white fish instead of shellfish.
- **Crab sticks or seafood sticks** the imitation crab meat in seafood sticks is usually made from fish.
- **Kimchi** is often made with fish sauce.
- **Sushi** is a Japanese dish often made with fish and seafood.

Dishes sometimes made with fish

- Kedgeree
- Paella
- Bouillabaisse
- Jambalaya
- Frito misto
- Etouffee

If you see any of these on sale, check with staff to find out exactly what ingredients are used. The term 'seafood' could mean shellfish but it's sometimes used to mean fish, so always check.

Fish gelatin

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Fish gelatin is sometimes used in foods instead of beef or pork gelatin. It comes from the skin and bones of several types of fish such as cod, pollock, salmon and tuna. Some people who are allergic to fish are able to eat a small amount of fish gelatin, but it has been known to cause anaphylaxis. If you have a fish allergy, always check food labels carefully to see if the food contains fish gelatin. It's sometimes used in marshmallow and nougat. Speak to your allergy specialist to check if it's safe for you to eat fish gelatin.

Omega 3 supplements

It is not known if Omega 3 supplements made from fish can cause allergic reactions in people with fish allergy. If you've been advised to take an Omega 3 supplement, it's best to use one made from a non-fish source to be safe.

Personal care products

Fish, or ingredients made from fish, can sometimes be found in cosmetics products:

- Fish collagen can be used as a moisturizer in skin care products.
- Fish oil can be used as an anti-inflammatory and moisturizer in skin care products.
- Fish scales can be used to make crystals that give cosmetics a shimmery effect.

It is not known how likely these products are to cause allergic reactions so it's best to avoid them if you are allergic to fish. Cosmetics ingredients are written in Latin. Look on labels for the names 'Pices' or 'Piscum'.

Other causes of symptoms

Some people who have allergic-type symptoms after eating fish may have one of these conditions, rather than a fish allergy:

• **Anisakis simplex**, also known as the herring worm, lives in the organs of some fish and shellfish. If you eat fish that has herring worms, it can cause an infection, and in some people it can cause allergic reactions. If you have a reaction to a shellfish or fish

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that you have eaten in the past with no problem speak to your GP – the reaction could be caused by herring worm.

• **Histamine poisoning.** High levels of histamine can sometimes be present in fish that has started to decompose, especially tuna and mackerel, and can cause a condition called scombroid poisoning. This causes similar symptoms to fish allergy. Unlike an allergy, this can affect anyone, although some people might have more serious reactions than others.

Key messages

- If you have symptoms after eating fish, visit your GP.
- If you are prescribed AAIs, carry two with you at all times.
- Speak to your allergy specialist about which foods to avoid.
- If you have asthma, make sure it's well managed. See your GP about this.

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 <u>info@anaphylaxis.org.uk</u> and we will gladly supply details.

Reviewers

This Factsheet was peer-reviewed by Dr Shuaib Nasser, Consultant in Asthma and Allergic Disease at Cambridge University Hospitals NHS Foundation Trust. Dr Nasser is Past President of the British Society for Allergy and Clinical Immunology.

Disclaimer

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The information provided in this Factsheet is given in good faith. Every effort has been 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 and local support groups. We also campaign and fundraise to achieve our ultimate aim, to create a safer environment for all people at risk of serious allergies. Visit our website <u>www.anaphylaxis.org.uk</u> and follow us to keep up-to-date with our latest news. We're on Facebook @anaphylaxisUK, LinkedIn, Instagram @anaphylaxisUK, Twitter @AnaphylaxisUK and YouTube.

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