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A brighter future for people with serious allergies

Shellfish allergy

There are different types of shellfish which can all cause allergic reactions. If you have had symptoms after eating seafood, including prawns, lobster, crab and others, you can find out all about the symptoms, getting a diagnosis, how to avoid shellfish and how to treat allergic reactions here.

What is a shellfish allergy?

Shellfish 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.

What are the different kinds of shellfish?

Shellfish can be split up into two groups: crustaceans and molluscs.

Crustaceans

Crustaceans include crab, lobster, crayfish and prawns.

Molluscs

Molluscs can be split up further into bivalves, gastropods and cephalopods.

a) Bivalves include mussels, oysters, razor shells, scallops and clams
b) Gastropods include limpets, periwinkles and snails found on land
c) Cephalopods include squid, octopus and cuttlefish

Which shellfish might I react to?

If you react to one type of shellfish, it's likely you'll react to others in the same group. For example, if you react to crabs, it's likely you'll react to other crustaceans. You might react to shellfish in the other group as well, in this case molluscs.

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You will also need to be careful of cross-contamination. At fish counters and markets different types of shellfish often touch each other whilst on display. If you eat a food contaminated by the shellfish you are allergic to, this could cause an allergic reaction.

What are the symptoms of shellfish allergy?

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

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** (pronounced 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 loss of consciousness and, on rare occasions, can be fatal.

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Read more about anaphylaxis.

Getting a diagnosis

If you think you may be allergic to shellfish, 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).

It's important to get a referral even if your symptoms were mild because it can be hard to tell if future allergic reactions could be more serious.

Once you get a referral, 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.

Read more about allergy testing.

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 shellfish.

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

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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.

Avoiding shellfish

Once you have been diagnosed with a shellfish allergy, you will need to avoid the types of shellfish you're allergic to and foods that contain them.

Read the ingredient lists on food packets carefully every time you shop. Shellfish are included in the list of top 14 major food allergens in the UK. This means they 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 shellfish. Ask staff directly if the food you'd like to buy contains shellfish and let them know that even small quantities can cause a reaction. Don't be afraid to ask staff to check with the chef.

Check if there is any risk of cross-contamination. For example, fried food such as chips could be cooked in oil which has been used to fry scampi. Stir fries can contain traces of prawns.

Read about shopping and preparing food.

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Which foods can contain shellfish?

Scampi is the name given to a small type of lobster, which is a crustacean. When you buy scampi, always check to see if the company has used other shellfish, such as prawn. Pre-packed scampi should make the ingredients clear on the label. Occasionally, fish can be used to make scampi instead of shellfish.

Oyster sauce is used to add flavour to some savoury dishes, especially in some multicultural cuisines such as Chinese noodle stir-fries, chow mein and beef with stir-fried vegetables.

Fish sauce is commonly used in the UK and in multicultural cuisines. It can be made with shellfish or fin fish.

Lancashire hotpot traditionally contained oysters, but a rise in price meant they are no longer commonly used.

Stocks and soups. Some meals may seem to be safe options, but always check the ingredients in stocks and soups.

Meals to look out for

If you see any of the following dishes available when you're eating out, check with staff to find out exactly what ingredients are used.

- Kedgeree
- Paella
- Bouillabaisse
- Gumbo
- Jambalaya
- Fritto Misto
- Etouffee

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Do I need to avoid other types of fish?

There is no evidence to suggest that people who are allergic to shellfish have a significantly higher risk of allergy to 'fin fish' such as cod, plaice, haddock, herring, trout, salmon and tuna.

Occasionally, people may be allergic to both shellfish and fin fish, but this is more likely to be a coincidence than cross-reactivity, which is where the proteins in one type of food are similar to the proteins in another. If you think you might be allergic to fish as well as shellfish, discuss this with your doctor.

Breathing in shellfish vapour

A small number of people with serious shellfish allergy have allergic reactions while shellfish is being cooked. Reactions to breathing in shellfish vapours are likely to be mild.
Once the food has been cooked and served the risk is reduced. It's unlikely that you will have a reaction if someone nearby is eating shellfish, in a restaurant for example.

Shell and skeleton derivatives

Some medicines, supplements and cosmetics can contain extracts from the shells and skeletons of shellfish. You will need to avoid these.

- Glucosamine, used in the treatment of arthritis, can be taken from the skeletons of shellfish. Although one study found that glucosamine supplements from specific manufacturers posed no threat to people with shellfish allergy, it is sensible to use shellfish-free glucosamine, which comes from other sources.
- Chitin, found in shellfish shells, is used in commercial "fat absorbers" (weight loss supplements) such as Chitosan HD so you will need to avoid these. Some moisturisers also contain chitin from shellfish.
- Some calcium supplements contain ground oyster shells.

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Seafood workers

If you work in the seafood industry, you are more at risk of developing an allergy to fish or shellfish because you will be breathing in or touching fish and shellfish 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.

If you work in the seafood industry and have had allergy-like symptoms, speak to your GP.

Iodine

It is a common myth that people with shellfish allergy are likely to be allergic to radiocontrast dye containing iodine, which is sometimes used in medical procedures. This is incorrect and there is no link between shellfish allergy and symptoms caused by radiocontrast dye or iodine.

Shellfish do contain a small amount of iodine, but allergic reactions to shellfish are caused by a protein found in the muscles of shellfish, not the iodine.

Other causes of symptoms

Some people who seem to be allergic to shellfish or fish may in fact have one of these conditions:

- **Anisakis simplex (also known as the herring worm).** This is a common parasite in many marine fish and shellfish. It can infect humans and can also cause allergic reactions in a very small number of people. People who have an

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allergic reaction to anisakis may think they have reacted to the fish or shellfish they ate. If you have a reaction to a type of fish or shellfish that you have eaten in the past without any problem, it's possible that it was caused by anisakis. Speak to your doctor if this happens.

- **Toxic algal blooms:** Shellfish sometimes absorb poison from toxic algal blooms (where algae grow out of control), which sometimes appear in freshwater or marine waters during warmer times of the year. This can cause illnesses known as amnesic (where you have partial or total loss of memory), diarrhetic, paralytic or neurotoxic shellfish poisoning.

Your doctor should be able to confirm whether you have an allergy or one of the above conditions.

Key messages

- If you think you may have a fish allergy, visit your GP.
- If you react to one type of shellfish, it's likely you'll react to others in the same group.
- If you are prescribed adrenaline, carry two devices with you at all times.
- Know how to use your adrenaline and what to do in an emergency.
- Read food labels carefully and question staff in restaurants, takeaways and anywhere you eat out of home.
- If you have asthma, make sure it's well managed.

Feedback

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

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

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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 Dr Adrian Morris of the Surrey Allergy Clinic.

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.

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