

Latex allergy: the facts

There are two different types of latex allergy: Type 1 (immediate) which can lead to anaphylaxis and Type 4 (delayed) which causes skin reactions. If you think you are allergic to latex visit your GP, even if your symptoms have been mild, so they can refer you to an allergy specialist if needed.

What is latex?

Natural rubber latex (NRL) is a milky fluid from the Hevea brasiliensis tree, which is widely grown in Southeast Asia and elsewhere in the world. It is used in thousands of everyday products and healthcare items.

Types of latex allergy

There are two types of latex allergy:

- **Type 1 (immediate):** This is a reaction to proteins in the latex. Symptoms come on quickly and can lead to anaphylaxis the most serious form of allergy, which can be life-threatening.
- **Type 4 (delayed):** This is usually a reaction to chemicals used in the manufacturing process. It's not life threatening but it's essential to speak to your GP if you have a reaction. Symptoms affect the skin and appear between 6 and 48 hours after touching latex. If you are exposed to latex repeatedly, symptoms can come on more quickly and last for longer.

How common is latex allergy?

An estimated 1-6 out of every one hundred people could be sensitised to latex, but not everyone who is sensitised will have symptoms. 'Sensitised' means your immune system has produced antibodies to latex after coming into contact with it and these could cause symptoms if you come into contact with it again in future.

The number of people with latex allergy rose from the 1980s when latex gloves became widely used, particularly among healthcare professionals. To meet the rise in demand, the way latex gloves were made changed and high protein powdered gloves were commonly used. The powder in the gloves could absorb the latex proteins and become airborne which is likely to have caused a rise in allergies.





Later, powder-free low-protein latex gloves became available, as well as latex-free alternatives, leading to a fall in latex allergy from the late 1990s. But if you have latex allergy you will still need to be careful to avoid latex.

Who is most at risk of a latex allergy?

The following groups are more likely to develop latex allergy.

People with allergy in their immediate family

This is known as allergic tendency. However, not everyone with allergies in their family will develop an allergy themselves, and if they do, it would not necessarily be the same allergy.

People having multiple surgeries

For example, children with spina bifida. Their risk depends on how much they are exposed to latex gloves and catheterisation devices.

People with certain food allergies

Such as allergies to banana, avocado, tomato, potato, kiwi and chestnut, because the proteins in these foods are similar to the proteins in latex. This is known as latex-food syndrome.

People who use latex often

People who often use latex gloves or other products containing latex are particularly at risk of developing latex allergy. For example:

- healthcare workers, including nurses and dental practice staff
- carers, such as residential care home staff
- cleaners and housekeepers
- hairdressers
- caterers who wear gloves at work
- motor mechanics
- balloon entertainers.





Symptoms of type 1 (immediate) latex allergy

The symptoms of Type I latex allergy usually come on quickly, within minutes of coming into contact with latex.

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.

More serious symptoms of Type I latex allergy

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** (pronounced 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.

Can you react by being in the same room as latex?

When powdered gloves were used, some people with Type I (immediate) latex allergy would have symptoms simply by being in the same room as the latex gloves. This should not be an issue now that powdered gloves are no longer used.





People with serious latex allergy might react if they are in an enclosed space near a balloon display, as latex balloons are often packed with powder to stop them sticking together. This can mean the latex proteins become airborne when the balloons are inflated.

Symptoms of type 4 (delayed) latex allergy

Type 4 latex allergy is a delayed reaction to chemicals used to make latex. The reaction affects the skin and is known as contact dermatitis.

Symptoms can range from a mild skin reaction to an extremely unpleasant red, itchy, scaly rash. In people of colour, reactions may cause other changes in colour and pigment. Symptoms often appear in the area where the latex was used (localised), such as the wrists and forearms when you wear gloves but may spread to other areas of the body.

Getting a diagnosis

Whether you think you have Type 1 or Type 4 latex allergy, see your GP who can refer you to a specialist allergy clinic if needed.

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.

Everyone with Type 1 (immediate) allergy symptoms should be referred to an allergy clinic and those with Type 4 (delayed) symptoms are usually seen in a dermatology clinic. There can be overlap in Type 1 and Type 4 symptoms which makes it difficult to make a diagnosis and means people with Type 1 reactions might be seen in a dermatology clinic.

Your GP can find an allergy clinic in your area from the <u>British Society for Allergy and Clinical Immunology (BSACI)</u>.

Once you get a referral, the consultant will discuss your medical history and symptoms with you.





To diagnose Type I (immediate) latex allergy

You may be offered skin prick tests and/or blood tests. You might also be offered a "challenge" test, where you are exposed to latex in strict conditions with medical supervision.

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 latex.

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.

To diagnose Type 4 (delayed) latex allergy

Patch testing is used to diagnose Type 4 allergy. This is where the health professional applies diluted rubber accelerator chemicals which are added to latex during processing (not usually the natural rubber latex protein itself) to your skin. The test is run over several days because, with a Type 4 reaction, there is a delay between contact with the rubber chemical and when the symptoms appear. This can vary from hours to several days.

Read more about allergy testing.

Treating type 1 (immediate) latex allergy

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 on the manufacturer's website where you can get a free trainer device to practise with.





The adrenaline auto-injectors prescribed in the UK are:

- Emerade
- EpiPen
- Jext

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.

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 Type 4 (delayed) latex allergy

Type 4 latex allergy is treated with emollients (moisturising treatments which you apply to the skin to soothe and hydrate it) and topical steroid creams. Where practical, you can take steps to avoid contact with latex to lower the risk of a reaction.

Avoiding latex

Once you have been diagnosed with latex allergy, you will need to avoid latex. Whenever you are having a medical procedure, tell your healthcare providers about your allergy, including doctors, nursing staff, anaesthetists and dentists. You may also want to tell your employer.

Here are just a few products that may contain latex.

Everyday items to be aware of

- Latex gloves
- Balloons
- Erasers (rubbers)
- Rubber bands
- Latex plasters
- Condoms
- Baby teats/dummies
- Hot water bottles
- The contraceptive cap
- Latex pillows
- Stress balls





- Washing-up gloves
- Carpets
- Tyres
- Glues (adhesives) including hair glue
- Underwear elastic
- Shoe soles
- Waterproof socks
- Sports equipment such as basketballs, hand grips and gym mats
- Swimming cap and goggles
- Some foam rubbers latex mattresses are common
- Calculator buttons and remote-control buttons
- Floor screed for levelling floors although this is usually sealed under tiles or lino

Dry rubber

Shoe soles and tyres are made with what is known as 'dry' rubber. Allergic reactions to dry rubber products are uncommon and mainly affect people with a serious latex allergy. When seeing a consultant, ask about your individual risk.

Medical equipment that can contain latex

- Examination and surgical gloves
- Oral and nasal airways
- Endotracheal tubes
- Intravenous tubing
- Surgical masks
- Rubber aprons
- Injection ports
- Wound drains
- Catheters
- Bungs and needle sheaths on medicines
- Dental dams
- Anaesthesia masks
- Syringes
- Blood pressure cuffs
- Stethoscopes
- Tourniquets





- Electrode pads
- Surgical masks

Latex urinary catheters are a common cause of allergic reactions and silicone catheters can be used as an alternative.

Latex-food syndrome

Some people with Type 1 (immediate) latex allergy also react to certain fruits and vegetables, including banana, avocado, tomato, potato, kiwi, chestnut, lychee, papaya, passion fruit, fig, melon, mango, pineapple, peach and lettuce.

This is known as cross-reactivity, where the proteins in latex have a similar structure to the proteins in these foods. If you are allergic to any of these foods, you may also be allergic to latex, and vice versa.

Symptoms normally affect the mouth after eating the food and are usually mild. They can include tingling or itching in the lips, tongue or throat. More serious reactions can occur, so discuss this with your doctor. You can also discuss which foods might cause you a problem.

Raw potatoes can cause contact reactions when people with latex allergy peel potatoes, but cooked potato is not usually a problem.

Not everyone with latex allergy has latex-food syndrome, and most people with latex-food syndrome will only react to a small number of foods.

Can I have the flu (influenza) vaccine?

Some flu vaccines have a latex needle sheath. In the <u>Green Book</u>, the UK Health Security Agency says the risk for people with latex allergy is extremely small, but that if you have a history of serious allergy to latex (anaphylaxis) you should be offered an alternative latex-free vaccine that covers the same disease where possible.

Discuss this at your local surgery before having the flu vaccine and request one that does not have a latex needle sheath.





Which dental anaesthetics are made with latex?

The NHS Specialist Pharmacy Service provides a <u>list of local anaesthetics</u> used by dentists and notes whether latex is used to make the anaesthetic, its container and packaging.

Key messages

Thinking ahead and having coping strategies can help you manage latex allergy.

For Type 1 (immediate) latex allergy

- Be aware of the things that contain latex avoiding it is the first line of defence.
- See your GP and ask for a referral to a specialist.
- Carry your prescribed medication everywhere.
- If you carry adrenaline auto-injectors, learn how and when to use them.
- If you have asthma, make sure it's well managed.

For Type 4 (delayed) latex allergy

- Type 4 is very different to Type 1 latex allergy.
- See your GP and ask for a referral. Ideally you will be tested by a specialist who knows about both types of latex allergy.
- Type 4 latex allergy is not life threatening but discuss all the possible symptoms with your specialist.
- It's good to take practical steps to avoid latex, but rubber is everywhere so don't let avoiding latex take over your life.

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.

Reviewers

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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 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 www.anaphylaxis.org.uk and follow us to keep up-to-date with our latest news. We're on





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