



British Heart
Foundation

Raynaud's phenomenon

What is Raynaud's phenomenon?

Raynaud's phenomenon is a condition that affects the blood vessels in your fingers and toes. It can cause them to constrict, and spasm, so they become narrower and reduces the blood supply to your fingers and toes.

It affects women more than men and those who live in colder climates.

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What causes it?

The cause of Raynaud's is often unknown. However it appears to be linked to connective tissue disorders, such as scleroderma, lupus and rheumatoid arthritis. If you have scleroderma, you may often suffer more acute symptoms and in severe cases you may develop persistent finger ulcers, infection and in extreme cases it may lead to gangrene.

Other possible causes of Raynaud's are carpal tunnel syndrome and peripheral arterial disease (PAD).

The following medications have been linked to Raynaud's:

- beta-blockers
- ergotamine preparations (used for migraine headaches)
- some medicines used for cancer treatments
- medicines that cause narrowing of the blood vessels

If you operate vibrating tools you may suffer from a type of Raynaud's called vibration-induced white finger (VWF) or hand-arm vibration syndrome (HAVS). Some people may develop Raynaud's as a result of working in the plastic industry - where there is exposure to vinyl chloride.

What are the symptoms?

Symptoms usually come on in episodes – or attacks. Although they usually affect the fingers or toes, they may also affect your nose, lips, or ear lobes. Each episode can cause three phases of colour change (white, blue, red) in the affected part of your body, although this is not the same for everyone.

- Pallor (unnatural paleness) appears as a result of spasms of the small blood vessels which reduces the blood supply to the area.
- Cyanosis (blueness) happens when the level of oxygen-rich blood is severely reduced. The affected area may also feel cold and numb.
- Rubor (redness) happens when the small blood vessels relax and blood returns to the area.

At the end of an attack, you might feel a throbbing and tingling sensation as the blood supply returns to the affected area. An episode can last from less than a minute to several hours.

Heart Helpline

Our cardiac nurses and information support officers are here to answer your questions and give you all the heart health information and support you need.

Call us on 0300 330 3311

Similar cost to 01 or 02 numbers.
Lines are open 9am - 5pm Monday to Friday.

This information does not replace the advice that your doctor or nurse may give you. If you are worried about your heart health in any way, contact your GP or local healthcare provider.

What tests will I need?

You may need a blood test to see if you have any of the other conditions mentioned above which can cause Raynaud's. Other tests you may need to have are:

- Nail fold capillaroscopy which involves looking at the very small blood vessels (capillaries) under a microscope to see if there is any significant damage.
- A laser Doppler used to measure the blood flow in the small skin vessels.

Will I need treatment?

You will probably be prescribed medicines to help improve your circulation. It may take some time to find the right medicine for you and what works for one person may not work for another. The most common medicine you may be prescribed is a calcium channel blocker, which relaxes the smooth muscle and improves the blood supply to the affected area.

If your symptoms are severe and don't respond to the medicines, your doctor may suggest that you have a surgical procedure called a sympathectomy. This is where some of the nerves to the affected area are cut to reduce the pain you feel during an episode of symptoms. The operation is not a cure but can make your symptoms less severe.

You should also try to:

- Keep warm. Wear thermal gloves and hats to encourage a good blood flow. You may need to wear socks in bed during winter, and make sure you keep your feet dry.
- Avoid air conditioned rooms.
- Quit smoking. This damages the lining of your blood vessels wall and affects the smooth muscle, reducing your blood supply to your fingers and toes.
- Keep stress under control. You may find that periods of stress are a trigger for your symptoms.
- Keep active. Exercise improves your circulation and can help control stress.