



Raynaud's phenomenon

This information sheet from Great Ormond Street Hospital (GOSH) explains the causes, symptoms and treatment of Raynaud's phenomenon and where to get help.

Raynaud's phenomenon is a fairly common condition characterised by an exaggerated reaction to cold temperatures. It mainly affects the hands and feet but can also affect the nose, ears and lips. Raynaud's phenomenon is named after the doctor who first described the condition.

Normally, our body copes with cold temperatures by narrowing the blood vessels to keep the blood in the core of the body where the major organs are located. Similarly, it deals with hot temperatures by dilating (widening) the blood vessels to allow blood to flow more easily to the skin so it can let off heat.

When someone has Raynaud's phenomenon, their body reacts to the cold in a similar way by narrowing the blood vessels but overreacts and reduces blood flow in only mildly colder temperatures, such as running hands under cold water or holding a cold drink. Stress, by causing adrenaline release, can also cause exaggerated narrowing of the vessels.

What causes Raynaud's phenomenon?

Raynaud's phenomenon can occur on its own (primary Raynaud's phenomenon) or as a result of an underlying condition (secondary) such as vasculitis, lupus or scleroderma. The primary type is the most common and usually starts in teenage years. The exact cause is not yet known.

Doctors think that the secondary form occurs following damage to the blood vessels caused by the underlying condition. For instance, vasculitis causes inflammation of the blood vessels which can damage them over a period of time. Secondary Raynaud's is more common in adults than in children and young people.

Both types of Raynaud's phenomenon occur more frequently in females than males.

What are the signs and symptoms of Raynaud's phenomenon?

The most well-known sign of Raynaud's phenomenon is the change in skin colour when exposed to cold. As the blood flow is restricted to the hands and feet, the skin becomes white when blood flow reduces, blue as the oxygen levels in the skin fall and finally red as blood flow starts again.



As well as the skin colour changes, the hands and feet may feel numb, and then start to throb as blood flow returns. The severity of the symptoms varies from person to person.

How is Raynaud's phenomenon diagnosed?

Raynaud's phenomenon is usually diagnosed on the basis of the history and physical examination. Blood tests may be suggested to rule out any other problems that could cause similar symptoms or confirm an underlying condition if secondary Raynaud's phenomenon is suspected.

How is Raynaud's phenomenon treated?

The symptoms of Raynaud's phenomenon can be improved by taking common sense measures such as wearing warm gloves and socks in cold weather. It is often better to dress in several layers of thin clothing as this traps warm air between each layer. Heating devices are available for gloves and boots but these must be used carefully to avoid getting too hot. Wearing gloves to hold cold drinks or to take things out of the fridge and freezer can be helpful. Regular exercise can help by boosting blood flow.

If an attack occurs and the skin colour changes occur, it is important to move

somewhere warm, such as inside a shop or café, and to move the fingers and toes to encourage blood flow. Running hands under warm water can also help – although keep an eye on the temperature of the water as the numbness may make it difficult to judge.

Medicines, such as calcium channel blockers, which widen the blood vessels to increase blood flow, are sometimes prescribed to reduce frequency and severity of episodes of Raynaud's.

What happens next?

Raynaud's phenomenon is a lifelong condition although the symptoms tend to remain stable throughout life, not getting any worse with age.

Further information and support

The main organisation in the UK is RSA – the Raynaud's and Scleroderma Association – who can offer support and advice. Call their helpline on 0800 917 2494 or visit their website at www.raynauds.org.uk

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