Raynaud's phenomenon

Raynaud's phenomenon is a condition that can cause discomfort as the blood supply to your fingers and toes becomes reduced in cold temperatures or emotionally stressful conditions, with a change in colour of the affected areas.

Raynaud's phenomenon can be primary, where it occurs on its own, or it can be secondary when it’s linked to another disease or condition. Raynaud’s phenomenon can last from just a few minutes to many hours.

Around five per cent of the population has the condition to some degree. It is much more common in women and girls, with those under the age of 25 more commonly affected.

Raynaud’s phenomenon doesn’t usually cause permanent damage. However, it can be a symptom of more serious underlying illnesses, so it is important to see your doctor if you experience it.

Symptoms of Raynaud’s phenomenon

The body prevents heat loss in cold weather by redirecting the blood away from the extremities. In a person with Raynaud’s phenomenon, this reaction is exaggerated. The blood vessels constrict tightly, starving the tissues of blood and causing the characteristic blue or white colour change.

When blood flow returns, the skin turns from blue to red and finally back to the normal pink colour. Circulation to the rest of the body is generally perfectly normal. There can also be pain, tingling and numbness in the fingers or toes.

Primary Raynaud’s phenomenon

Primary Raynaud’s phenomenon (or Raynaud’s disease, or just Raynaud’s) is the most common form of Raynaud’s phenomenon. It is called ‘idiopathic’ because there is no clear underlying cause. It is often so mild that the person never seeks medical attention.

Secondary Raynaud's phenomenon

Secondary Raynaud’s phenomenon is generally more complex and serious than primary Raynaud’s. The most common causes of secondary Raynaud’s are underlying autoimmune disorders such as rheumatoid arthritis, scleroderma and systemic lupus erythematosus (SLE or lupus).

Other common causes of secondary Raynaud’s phenomenon are:

- mechanical vibration – such as using a power tool for long periods. This is known as ‘industrial white finger’. It is thought that the vibrations disrupt the nerves
- atherosclerosis – in which a narrowing of the arteries is caused by a build-up of fatty plaques. Blood flow to the extremities may be hampered by this condition
- smoking – constricts blood vessels
- some medication – such as beta blockers, which contain ergotamine, certain chemotherapy agents and medication that causes blood vessels to narrow
- frostbite.

Complications of Raynaud’s phenomenon

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In most cases, Raynaud’s phenomenon is harmless and has no lasting effects. In severe cases, however, loss of blood flow can permanently damage the tissue.

Complications of severe Raynaud’s phenomenon include:

- impaired healing of cuts and abrasions
- increased susceptibility to infection
- ulceration
- tissue loss
- scarring
- gangrene.

Diagnosis of Raynaud’s phenomenon

It is not hard to diagnose Raynaud’s phenomenon, but it is sometimes hard to tell the difference between the primary or secondary form of the disorder. Your doctor may use a range of methods to decide which form a person has, including:

- a complete medical history
- physical examination
- blood tests
- examining fingernail tissue with a microscope.
- a cold stimulation test for Raynaud’s phenomenon.

Treatment for Raynaud’s phenomenon

For most people, primary Raynaud’s phenomenon is a nuisance rather than a disabling condition. However, if Raynaud’s phenomenon does occur, warming the body and the extremities is helpful. Retreat indoors, and soak fingers or toes in warm water. If a stressful situation triggers the attack, try to remove yourself from the situation and relax.

The general response to secondary Raynaud’s phenomenon is to treat the underlying illness. In severe cases, vasodilating medication (that dilates the blood vessels) may be prescribed to prevent tissue damage. Surgery may be needed if a person has skin ulcers or serious tissue damage.

Prevention of Raynaud’s phenomenon

- There is no cure for Raynaud’s phenomenon. Managing the condition requires avoiding known triggers, particularly exposure to cold temperatures. Some suggestions include:
  - Avoid prolonged exposure to cold weather or sudden temperature changes, such as leaving a warm house on a cold day or air conditioned rooms in hot weather.
  - Make sure your whole body is kept warm, using several layers of clothing to trap body heat. Keep your extremities warm with gloves and woollen socks. Some people also find it helpful to use hand warmers available from outdoor shops.
  - It may be helpful to talk to an occupational therapist.
  - Be aware that even holding something cold, such as a can of drink, can trigger symptoms.
  - Don’t smoke cigarettes or drink caffeinated beverages, since nicotine and caffeine constrict the arteries.
  - Avoid medication such as vasoconstrictors, which cause the blood vessels to narrow. Avoid beta blockers, many cold preparations, narcotics, some migraine headache medication, some chemotherapeutic medication and clonidine (blood pressure medication). Of course, decisions about the use of medication need to be discussed with your doctor.
  - Learn to recognise and avoid stressful situations. Stress and emotional distress can trigger an attack, particularly for people with primary Raynaud’s phenomenon. Relaxation may decrease the number and severity of attacks you experience.
  - Keep a journal of when episodes occur. Triggers for these episodes may become evident.
  - Hand care – dry hands can cause skin cracks. Moisturise your hands to prevent dryness and protect hands when in water with barrier creams. Speak to your doctor about which type to use.
  - Exercise regularly to maintain blood flow and skin condition. Physical activity can also help increase your energy levels, control your weight, improve your cardiovascular (heart) fitness and help you to sleep better. Talk to your doctor before starting any exercise program.
  - It is important to make sure that you eat a healthy and well balanced diet.
Where to get help

• Your doctor

Things to remember

• Raynaud’s phenomenon is the short-term interruption of blood flow to the extremities, such as the fingers and toes.
• Raynaud’s phenomenon may be a sign of an underlying autoimmune disorder such as scleroderma or lupus, so it is important to see your doctor for diagnosis.
• Management options include avoiding cold weather and sudden temperature changes.

This page has been produced in consultation with, and approved by:

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