

## Raynaud's phenomenon

Raynaud's phenomenon is a condition that affects the blood flow to the extremities, such as fingers and toes. It is caused by a sudden constriction of the blood vessels. 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 females, with those under the age of 25 more commonly affected. Raynaud's phenomenon doesn't usually cause permanent damage.

### Reduced blood flow and colour changes

Normally, 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. Circulation to the rest of the body is generally perfectly normal.

When blood flow returns, the skin turns from blue to red and finally back to the normal pink colour.

### There are two types

There are two categories of Raynaud's phenomenon:

- **Primary Raynaud's phenomenon (or Raynaud's disease)** – this 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 the person never seeks medical attention.
- **Secondary Raynaud's phenomenon** – this condition is generally more complex and serious than primary Raynaud's. The most common cause of secondary Raynaud's includes a range of underlying autoimmune disorders such as rheumatoid arthritis, scleroderma and systemic lupus erythematosus (SLE or lupus).

### Other causes of Raynaud's phenomenon

Other common causes of Raynaud's phenomenon include:

- **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 and can cause Raynaud's.
- **Some drugs** – such as beta blockers, drugs that contain ergotamine, certain chemotherapy agents and drugs that cause blood vessels to narrow have been linked to Raynaud's.

### Complications of Raynaud's phenomenon

In most cases, Raynaud's phenomenon is harmless and doesn't have any lasting effects. In severe cases, however, the constant loss of blood flow can permanently damage the tissue.

Complications include:

- Impaired healing of cuts and abrasions
- Increased susceptibility to infection

- Ulceration
- Tissue loss
- Scarring
- Gangrene.

## Seek medical advice

Since Raynaud's phenomenon can be a symptom of more serious underlying illnesses, including scleroderma and lupus, it is important to see your doctor for diagnosis.

## 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. These include:

- A complete medical history
- Physical examination
- Blood tests
- Looking at fingernail tissue with a microscope.

## Treatment for Raynaud's phenomenon

The type of treatment that is recommended depends on which form of the condition the person has:

- **Primary Raynaud's phenomenon** – non-drug treatment is the main form of treatment to manage the condition and reduce the number and severity of episodes.
- **Secondary Raynaud's phenomenon** – generally, treating the primary illness should ease the symptoms of Raynaud's phenomenon. In severe cases, vasodilating medications (drugs that dilate the blood vessels) may be prescribed to prevent tissue damage. Surgery may be needed if there are 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. Suggestions include:

- Avoid prolonged exposure to cold weather or sudden temperature changes, such as leaving a warm house on a cold day.
- Make sure your whole body is kept warm, using several layers of clothing to trap body heat. Keep the extremities warm with gloves and woollen socks.
- 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 medications such as vasoconstrictors, which cause the blood vessels to narrow. Drugs to avoid include beta blockers, many cold preparations, narcotics, some migraine headache medications, some chemotherapeutic drugs and clonidine (blood pressure medication). Of course, decisions about the use of medications 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 help decrease the number and severity of attacks you experience.
- 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.

## 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:**

Arthritis Victoria incorporating Osteoporosis Victoria

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