

CAUSES

When the body is exposed to cool temperatures, extremities are the first to lose heat. The body slows down blood supply to fingers and toes to preserve the body's core temperature. It reduces blood flow by narrowing the small arteries under the skin of the extremities. In people with Raynaud's, this normal response to cold is exaggerated. Stress may also bring about this reaction.

Doctors don't completely understand the cause of Raynaud's attacks, but blood vessels in the hands and feet appear to respond abnormally to nerves that regulate them. The result is that the body overreacts to cold temperatures or stress. Although cold is often the trigger for a Raynaud's attack, changing temperatures is the prime cause even in a warm environment. This is probably caused by an exaggerated response of a normal mechanism, which maintains the central body temperature by shunting blood away from the hands and feet to the core. The cause of this exaggerated response is not known but is thought to be a failure of the normal chemical and neural control of the blood flow. Inflammation or vascular changes associated with scleroderma may also play a role.

With Raynaud's, arteries to the fingers and toes go into what is called a vasospasm. The vessels constrict temporarily, dramatically limiting blood supply. Over time, these same small arteries also may thicken slightly, further limiting blood flow. The result is that affected skin turns pale because of the lack of blood flow to the area. Once the spasms subside and blood returns to the area, the tissue may turn red before returning to a normal colour.

MANAGEMENT

For most people, Raynaud's is more a nuisance than a disability, and there are many common sense preventative measures. Most certainly the best is to minimize exposure to cold. Keep the extremities warm by wearing warm gloves and mitts especially when handling refrigerated or frozen items. Hats in the cold are helpful. It is important to keep the entire body warm as this prevents the onset of the Raynaud's episodes. Warming the body often relieves an attack better than warming the hands or feet.

Smoking and cigarette smoke should be avoided as nicotine decreases blood flow to the fingers and toes.

Learn relaxation and stress management techniques as they have been shown to be effective for many people.

TREATMENT

Treatment of Raynaud's depends on its severity and the presence or absence of associated conditions. While there is no cure for Raynaud's, it can be controlled and symptoms reduced by some medications that have been prescribed by physicians. Most common of these are channel blockers and vasodilators (drugs to dilate the blood vessels). These can be used intermittently or regularly with patients with severe manifestations. Sometimes nitroglycerine paste may be prescribed to open blood vessels. Mild blood thinners or drugs that decrease the stickiness of platelets may help to improve circulation. If gangrene or loss of a finger or toe is a danger, the physician may prescribe prostaglandin infusions. If skin ulcers become infected, they may require antibiotic therapy or local drainage. Many ulcers that develop are painful, so medication may be required.

We would like to thank **Dr. Evelyn Sutton, MD, FRCPC, FACP** for her assistance with this information pamphlet.

DISCLAIMER: This pamphlet is meant to provide information on scleroderma and is not meant to be used as a diagnostic tool or to suggest treatment or medications. Always consult your physician regarding details of symptoms, diagnosis, and treatment.



Sponsored by **Boehringer Ingelheim**

P.O. Box 16155 Lynn Valley
North Vancouver, BC V7J 3H2
1-604-371-1005

info@sclerodermabc.ca
www.sclerodermabc.ca



Scleroderma Canada | Sclérodémie Canada

March 2019