

Raynaud's Phenomenon after Cancer Treatment

What is Raynaud's Phenomenon?

Raynaud's is a condition that may cause some areas of your body to feel numb and cool in response to cold temperatures or stress. Raynaud's causes occasional narrowing of blood vessels, limiting blood flow for brief periods of time. This is called a vasospasm. During periods of vasospasm, the skin is deprived of oxygen, and may become pale and then turn a bluish color. As the blood vessels relax and blood flow resumes, the skin may become red. The hands and feet are most commonly affected, but Raynaud's may also involve the nose, lips, cheeks, and earlobes.

Symptoms

- Changes in skin color (often from white to blue to red)
- Changes in skin temperature (affected areas feel cooler)
- Numbness or prickly feeling in the fingers (not thumbs) and toes
- Occasional episodes of pain (described as throbbing) and swelling

What happens during an attack?

For most people, cold temperature or stress triggers an attack. Typically, when the body is exposed to cold, the hands and feet lose heat rapidly. In order to conserve heat, the body reduces blood flow near the skin surface and moves it deeper in the body. For people with Raynaud's, this normal response is exaggerated by sudden spasms of the small blood vessels that supply blood to the fingers and toes. This greatly reduces the blood supply to the hands and feet, causing changes in the skin color and temperature. The first sign is often pallor (or whiteness), in response to the spasm. The skin may then appear blue (cyanotic) and feel numb or cold, because of a lack of oxygen-rich blood. Finally, the skin may turn red and become swollen, as the small blood vessels relax and dilate, and blood flow returns. Commonly, throbbing and tingling may occur in the fingers and toes as the attack ends. Raynaud's attacks can last from seconds to hours.

Who is at risk?

Childhood cancer survivors who received treatment with vinblastine or vincristine sometimes develop Raynaud's.

Prevention

Raynaud's is usually a chronic condition that you may need to manage for life. Some people may see improvement slowly over several years. Prevention of attacks is key:

- **Dress warmly when outdoors.**
- **Take precautions indoors.** Wear socks. Avoid drafts such as when opening the refrigerator or freezer. Wear mittens when handling cold items. Use the air conditioner sparingly. Use insulated drinking glasses.
- **Avoid putting unprotected hands in cold water.**

- **Do not use tobacco or drugs as such as cocaine.** Nicotine and cocaine constrict blood vessels and causes the skin temperature to drop, which may lead to an attack.
- **Exercise.** Regular exercise can enhance circulation and help control stress.
- **Manage stress.** Since stress is often a trigger for Raynaud's attacks, managing stress may help make the attacks shorter and less frequent.

Treatment

Treatment is directed at reducing the number and severity of attacks in order to prevent tissue damage. People with Raynaud's should follow all of the above recommendations for preventing attacks. In addition, if attacks are triggered by exposure to cold, placing the affected body part in warm water may help to stop symptoms. Other treatment methods include medications and biofeedback.

Medications

Medications that help to dilate blood vessels and promote circulation are sometimes prescribed for management of severe symptoms.

Certain prescription medications can sometimes make symptoms worse. These include birth control pills and some heart and blood pressure medicines. If you are taking any of these medications and are having symptoms of Raynaud's, consult with your healthcare provider regarding possible alternatives.

Certain over-the-counter cold or diet pills can make symptoms worse and should be avoided. These include drugs that contain pseudoephedrine (such as Actifed® and Sudafed®).

Biofeedback

Using your mind to control stress and body temperature may help to decrease the severity and frequency of attacks. This may include guided imagery and/or deep breathing exercises. A psychologist may be helpful in designing a biofeedback program that meets your needs.

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Additional health information for childhood cancer survivors is available at www.survivorshipguidelines.org

Note: Throughout this *Health Links* series, the term "childhood cancer" is used to designate pediatric cancers that may occur during childhood, adolescence, or young adulthood. Health Links are designed to provide health information for survivors of pediatric cancer, regardless of whether the cancer occurred during childhood, adolescence, or young adulthood.

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