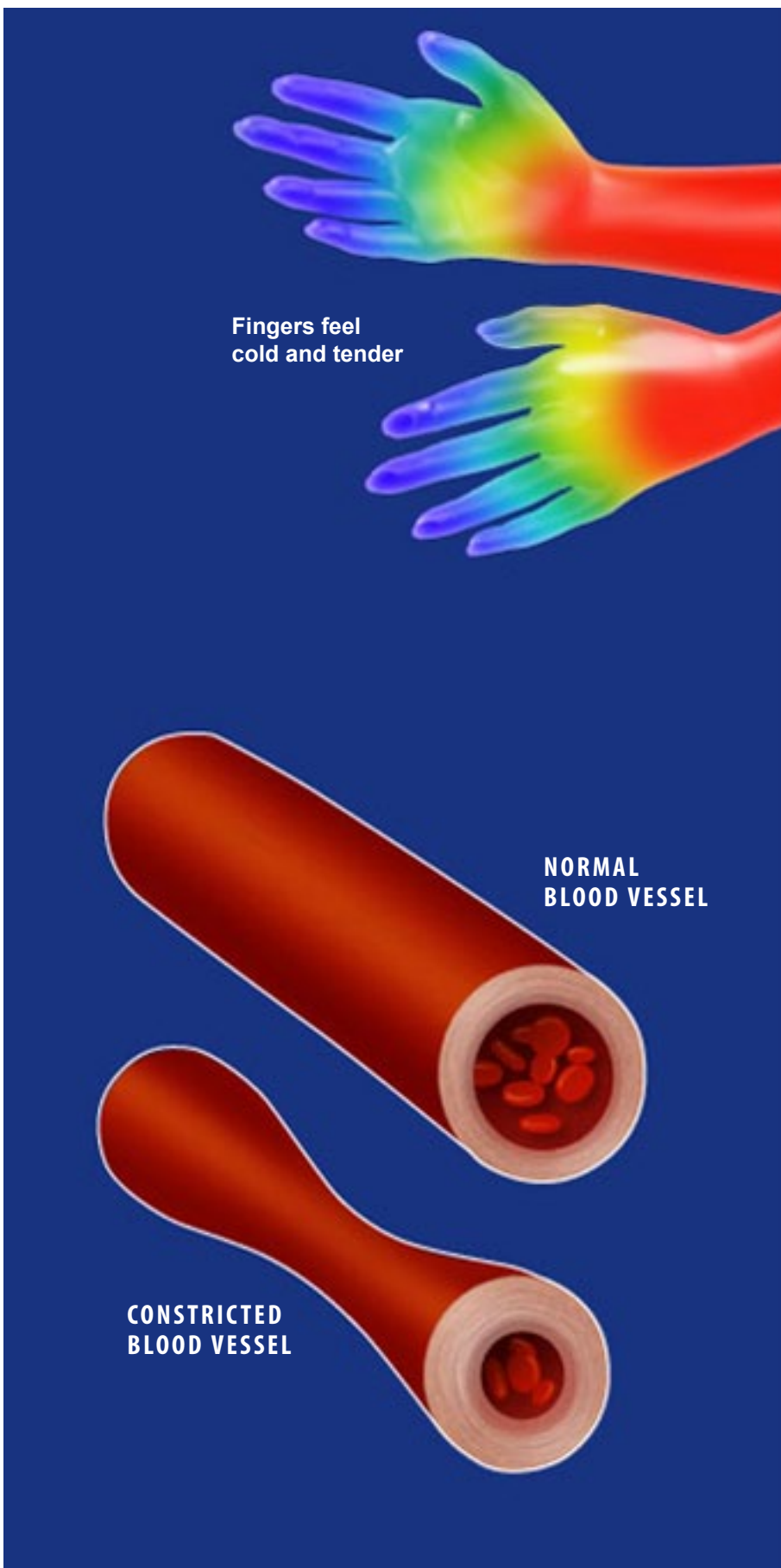


Raynaud's Phenomenon and Disease



Overview

Raynaud's phenomenon is an exaggerated form of vasoconstriction - the body's natural response to cold and stress. It results from a spasm of the small arteries that supply blood to the fingers. This spasm temporarily decreases blood flow, resulting in cold, painful, and discolored fingers.

How It Occurs

Vasoconstriction is a normal process that is triggered when the body encounters a cold environment. The sympathetic nervous system causes the blood vessels in the extremities to constrict, keeping blood and warmth in the body's core. Raynaud's phenomenon is a misfiring of this process, causing abnormal vasoconstriction.

Causes

Raynaud's phenomenon can be caused by several medical conditions that affect the vascular system of the hands, including lupus and other connective tissue diseases, rheumatoid arthritis, arterial disease, and trauma. It can also be caused by smoking and by taking certain medications.

Raynaud's Disease

Raynaud's disease, a condition often confused with Raynaud's phenomenon, also results in vasoconstriction of the fingers. But while Raynaud's phenomenon is caused by an underlying medical condition, Raynaud's disease occurs without any underlying medical condition - its cause is not fully understood. Attacks of Raynaud's disease are triggered by cold and stress, and are most common in young women.

Raynaud's Phenomenon and Disease



Symptoms

Symptoms of Raynaud's phenomenon and Raynaud's disease are similar. The most common symptom is hypersensitivity to cold and stress that results in a color change in the skin of the affected fingers. During an attack, the skin of the affected fingers typically turns white, then blue, then red - however, not all people experience all of these color changes, and not all people experience this particular sequence of colors. The affected area may also feel painful during the attack. An attack may be brief, lasting less than a minute, or it may last for several hours. Raynaud's disease typically affects both hands, but Raynaud's phenomenon typically affects only one. In severe cases, Raynaud's phenomenon can progress to cause thinning of the skin, ulcerations, and fingertip necrosis.

Diagnosis

It is important for a physician to differentiate between Raynaud's phenomenon and Raynaud's disease by studying a detailed medical history of the patient and the patient's symptoms. Blood tests and vascular studies may also be required. Once the condition has been diagnosed, the physician can determine the correct treatment plan.

Treatment

Treatment of Raynaud's phenomenon and Raynaud's disease typically begins with activity modification. Quitting smoking, avoiding cold environments, and wearing protective garments such as gloves or mittens will be recommended. Using biofeedback techniques to control the body's reaction to stress may also help control the condition. Medications may be used to dilate the blood vessels and decrease vasoconstriction. For severe cases, microvascular artery reconstruction or sympathetic nerve release may be required to restore normal blood flow to the fingers.