

HEALTH IN OUR HANDS!

The Arkansas State University Wellness Program Newsletter
www.astate.edu/conhp



Raynaud's Disease

Overview

Raynaud's disease is a disorder that typically affects a person's fingers and toes, but can also affect other parts of the body, for instance ears, the tip of the nose, and lips. In this condition, small blood vessels spasm causing decreased blood flow to the extremities.

Narrowing of these vessels can be brought on by cold temperature or emotional stress.

There are two main types of Raynaud's: Primary and Secondary. Primary Raynaud's disease is the most common and is not associated with an underlying disease or medical disorder. On the other hand Secondary Raynaud's disease is associated with a disease or medical condition. Known medical conditions that are linked to Raynaud's are the following:

- Scleroderma
- Lupus
- Rheumatoid arthritis
- Sjogren's syndrome
- Diseases of the arteries such as atherosclerosis.

Symptoms

The following is a list of signs and symptoms associated with Raynaud's disease:

- cold fingers and/or toes
- progressive color changes of the skin
- might experience a tingling or stinging pain when thawing the affecting area

At the onset of a Raynaud's attack, the involved area will turn white. Then it begins to appear blue. During this stage the area will feel cold and numb due to the decreased circulation. As the blood flow improves, the area will turn red causing a throbbing or tingling sensation. Not all people with Raynaud's disease follow this sequence of color changes.

Causes

Physicians do not fully understand the cause of Raynaud disease, but they do know that blood vessels of the affected areas are aggravated by cold temperature and stress.

Normally, cold temperatures cause the body to slow down blood flow to the fingers and toes to maintain the body's core temperature. This is accomplished by the narrowing of blood vessels. When people with Raynaud's are exposed to cold temperatures the body responds more aggressively, causing more narrowing of the blood vessels.

Risk Factors

Raynaud's affects all ages and genders, but women are at the greatest risk. It affects 90% more women than men. Other risk factors associated with primary Raynaud's disease are the following:

- Ages between 15-30
- Living in colder climates
- Family history (1/3 of people with Raynaud's disease have a parent, sibling, or child with this disorder)

Associated diseases, such as scleroderma and lupus are a risk factor for secondary Raynaud's disease. Also certain occupations involving repetitive

trauma can be a risk factor for secondary Raynaud's. Finally different substances can lead to secondary Raynaud's such as smoking and certain medications that compromise blood vessels.

Complications

Depending on the severity of the Raynaud's disease, blood flow can be permanently weakened which could lead to deformities of the affected areas. Skin ulcers and dead tissue could also be complications of Raynaud's disease. Skin ulcers usually form when an artery of the affect area becomes completely occluded. In severe cases a doctor might have to amputate the affected area if the ulcer or dead tissue goes untreated.

Tests and diagnosis

When diagnosing Raynaud's the doctor might implement a test called nail fold capillaroscopy. Basically the doctor examines the capillaries near the nail fold. If the vessels are deformed this could suggest the person has Raynaud's disease. This test does not always detect secondary Raynaud's. If a physician believes the patient has secondary Raynaud's then blood test will be used to determine an underlying problem.

Treatment

Preventive measures are the best treatment for Raynaud's. People can wear layers of clothing including gloves and thick socks to keep extremities warm. If Raynaud's disease is

more severe the person might take medication to control the disorder.

The medications help dilate or enlarge the blood vessels causing better blood flow to the affected areas. The following are a list of medications given for Raynaud's:

- Calcium channel blockers
- Alpha blockers
- Vasodilators

Certain medications such as birth control pills, beta blockers, and over-the-counter cold medications can cause blood vessels to narrow and intensify the Raynaud's. Doctors might recommend the person avoid these medications.

Surgery, chemical injections, and amputation are also methods of treatment. These methods are usually used only with severe Raynaud cases.

Helpful Tips

Lifestyle changes can help reduce Raynaud's attacks. The following is a list of lifestyle changes needed to manage this disorder:

- Exercise is a great way to increase circulation in the body and decrease the number of Raynaud's attacks.
- Stay away from caffeine. It causes blood vessels to decrease or narrow and may lead to more Raynaud's episodes.
- Smoking causes body temperature to decrease by narrowing blood vessels. Secondhand smoking can also flare-up Raynaud's.

- Since stress can spark Raynaud's attacks try to avert stressful situations.
- While working avoid devices that vibrate the hand, such as a jackhammer.
- Hands and Feet maintenance:
 1. Keep nails clipped to prevent injuries to toes and fingers.
 2. Walking barefooted is not recommended.
 3. Avoid wearing anything that could compress blood vessels in hands and feet, such as a wristband and stockings with tight bands.

References

- www.mayoclinic.com
- <http://www.raynauds.org>

Other News:

**If you have any suggestions for newsletter topics, please contact Dean Susan Hanrahan at hanrahan@astate.edu.

The Arkansas State University Employee Wellness Newsletter is published monthly during the academic year by the College of Nursing and Health Professions. Health questions can be addressed to Dean Susan Hanrahan, Ph.D., ext. 3112 or hanrahan@astate.edu. Produced by Kayla James, graduate student in the College of Nursing and Health Professions, Physical Therapy Program.