



You probably know about the canary in the coal mine. Before the invention of reliable carbon monoxide sensors, miners would take a canary into the coal mine with them. If the canary died or got sick, the miners knew to get out of the mine, because carbon monoxide levels were too high for them to safely work. The canary in this example is called a “sentinel” or “sentry” because it acts as a lookout and provides an early warning of danger.

Sentries exist in the human body too, and many of these do their work by sending a signal of pain. A headache, for example, may signal that you are under-hydrated. When we want to know if the coffee has cooled to a temperature that won't burn our mouth or throat, we place our palm on the hot cup and ask our nerves to give us a clue. Other examples abound.

One of the body's most powerful and perceptive sentries is the foot. If you have foot pain or some other visible or sensed change in your foot, ankle, or lower leg, you are advised to take it seriously: it may be sending you a warning sign of a larger problem. Let's look at a couple examples.

Circulatory Problems

Because of the foot's distance from the heart, the foot may be the first place on the body to register that your circulation is compromised. You may feel pain or—more common with circulatory problems—numbness or tingling. You may notice that foot hair has fallen out and the skin on the foot has become hard and/or shiny. Additionally, you may find that the pulse in your foot has weakened or is very difficult to feel.

These are all signs of circulatory problems and they may be attributed to larger overall health problems like peripheral artery disease, arteriosclerosis, neuropathy, and/or diabetes. These problems can become very dangerous very quickly. A common problem with circulatory issues in the feet is the development of an ulcer, usually on the bottom of the foot. If an ulcer develops, the poor circulation may mean the body cannot heal it. Costly and time-consuming medical intervention is then required, and approximately 70,000 Americans undergo amputation every year due to non-healing ulcers associated with diabetes alone. Paying attention to numbness or pain in the foot can hasten prevention of these extreme scenarios.

Nutritional Deficiency and Arthritis

The feet are also highly susceptible to nutritional deficiencies. Iron-deficiency, also called anemia, often results in shrunken or pock-marked toenails. Spasms or charley horses in the foot may signal that you are not getting enough calcium, potassium, or magnesium in your diet. Vitamin B deficiency may cause the feeling of pricking or tingling.

More serious dietary deficiencies—or, more to the point, dietary excesses—may result in gout. Gout is a form of arthritis that the body often senses in the big toe. It often strikes at night - it can wake you up with the feeling that your big toe has suddenly been lit on fire. The joints in the feet can also become swollen and very tender. Gout used to be known as “rich man’s disease” because diets high in fat and sugar were thought to cause it. Medicine now believes that gout results from a mix of dietary excess and genetic predisposition. In any case, the presence of gout can be a signal that your diet and exercise patterns need to improve.

Other forms of arthritis—particularly rheumatoid arthritis—impact the joints in the feet, usually causing swelling and pain. While some of the causes of rheumatoid arthritis are still not fully known, smoking is considered a major risk factor, and Vitamin D deficiency is often found in sufferers.

Other Conditions

A number of other conditions may first be detected in the feet. These include psoriasis, a disease that may cause pitted toenails, and inflammation, which can cause pain in the tendons of the foot.

The Importance of Examining the Causes of Your Foot Pain

To be sure, every instance of foot or lower leg pain is not caused by a large, systemic problem in the body. But too often foot pain is either not reported, is not thoroughly investigated, or is not investigated soon enough. If you feel foot pain, you should treat it as a possible early warning that you have a condition that actually can be reversed or alleviated by a lifestyle change, medication, or some other intervention.

If you are a miner and your canary drops dead or becomes ill, you better get out of the mine. Likewise, if your foot or lower leg has developed pain or changed its appearance, you better see a doctor.

Reference

National Institute of Neurological Disorders and Stroke. Peripheral Neuropathy. accessed July 28, 2015. http://www.ninds.nih.gov/disorders/peripheralneuropathy/detail_peripheralneuropathy.htm

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