Diabetes & Peripheral Arterial Disease: Combating a Dangerous Duo

If you have diabetes, you are at higher risk of also having peripheral arterial disease (PAD), a form of cardiovascular disease where blood flow to the legs and feet is limited because the arteries have become clogged with cholesterol and other substances. Many people who have PAD do not know they have it, but this condition can be serious, especially if you also have diabetes. In fact, if you have both diabetes and PAD, your risk for amputation of all or parts of your leg/foot increases. And, for smokers with these conditions, the risk of amputation is even higher.

Fortunately, there are steps that can be taken to prevent amputation of a toe or a leg. Read on to learn more about how diabetes and PAD affect the legs and feet and what you can do to slow or stop the disease process behind serious infections and the need for amputation.

What Is Diabetes?

Diabetes is a condition in which your body is unable to properly metabolize food to release the sugar (also called glucose) that provides energy for all of the body’s cells. Insulin, a hormone made by the pancreas, is needed to get the glucose into the cells. In healthy people, the body automatically senses how much glucose is in the bloodstream and releases the right amount of insulin to regulate the proper levels. In diabetes, the pancreas doesn’t make enough insulin or the cells do not respond correctly (are resistant) to the insulin, or both. As a result, the amount of glucose in the blood climbs too high while the cells starve for energy.

What Is Peripheral Arterial Disease?

PAD is caused by a build-up of fatty deposits (called plaque) inside the arteries that carry blood from the heart to other parts of the body. When arteries become partly or completely blocked with plaque, the flow of blood is restricted. Such blockages restricting blood flow interfere with the delivery of oxygen and nutrients that your muscles and organs need to work properly. This can result in leg pain (claudication) when you are physically active.

How Do Diabetes and PAD Increase the Risk of Limb Amputations?

Diabetes can damage the nerves in your legs and feet, making it difficult to sense if you have injured your foot or if you have a wound that is becoming infected. This nerve damage is called diabetic neuropathy. PAD causes the blood vessels that supply blood to the legs and feet to narrow, reducing blood supply to those tissues. Proper blood flow to the feet is necessary for wound healing and to fight off infection. In combination, diabetes and PAD can make it more likely both that a wound will not heal and that you may not be able to feel that there is a problem at all.

Who Is at Risk for Amputation from Diabetes and PAD?

Diabetes and PAD often go hand in hand. If you have one, you are at risk of the other. The greatest risk factors for amputations are being more than 70 years old, having diabetes and ongoing smoking. Additionally, a recent study found that African American patients are at much greater risk of amputation.

Note: The information contained herein does not, and is not intended to, constitute comprehensive professional medical services or treatment of any kind. This information should not be used in place of medical diagnosis or medical advice and must be considered as an educational service only.
What You Can Do to Prevent Amputations

The best tools for avoiding amputation are good prevention, closely monitoring your own health and seeing your doctor promptly if you suspect any problem with the circulation of blood to your legs and feet. Doctors recommend these strategies:

• **Take good care of your feet.** Examine your feet every day to look for sores. Contact your physician immediately if a wound on your foot is not healing. Being proactive could help prevent amputation. **SecondsCount’s Treat Your Feet Checklist** can give you good, step-by-step instructions for caring for your feet.

• **If you smoke, quit.** Smoking is one of the biggest risk factors for a diabetes-related amputation. **Quitting smoking** is tough, but there are treatment programs and medications that are available to help you. Even lifelong smokers who quit experience immediate health benefits and reduced risk of amputation after quitting. If you are not a smoker but are frequently around someone who smokes, this is dangerous as well. Minimize your exposure to secondhand smoke. Ask for help. Your healthcare team can help you quit once and for all.

• **Have your circulation checked.** It is important to know how healthy the circulation to your feet is. This can be checked with a simple, noninvasive test called an **ankle brachial index (ABI).** This test is recommended for patients older than 70 years of age, or those who are 50–69 years of age with any history of smoking or diabetes. If you fit this category and have not had this screening test, ask your doctor today. This will help your doctor determine if you have blockages in your leg arteries. Most patients with PAD actually do not have symptoms, so the ABI test will help your doctor determine your risk.

• **Ask your physician about your options.** If you have diabetes, PAD and symptoms of pain in your legs with exertion such as walking, ask if you might benefit from an imaging test called an **angiogram** that checks for blocked blood vessels in the legs. If serious blockages are discovered, **revascularization**, a procedure to reopen the blocked blood vessels to restore blood flow, can help prevent amputation.

• **If you learn that you have PAD, discuss with your doctor whether you should be referred to a podiatrist.** As explained above, people with diabetes and PAD are prone to serious foot infections and injury. If you have these conditions, a podiatrist can help you achieve good foot care.

Questions to Ask Your Doctor About Diabetes and Peripheral Arterial Disease

- I have diabetes. Should I also be **checked for peripheral arterial disease with an ABI?**
- I have peripheral arterial disease. What is my risk of heart attack, stroke and other cardiovascular events from blocked arteries elsewhere in my body?
- Should I have an **ankle-brachial index test?**
- Would I benefit from an **angiogram** of the arteries in my legs?
- Would I benefit from a **revascularization** procedure to improve blood flow to my legs?

What Should I Do If I Have More Questions?

Ask every question you have. Remember that though diabetes and peripheral arterial disease are serious conditions, every individual is different. Talk with your physician about how to best manage your health to reduce your personal risk of serious complications. Taking good care of your feet, taking medications as prescribed, and talking honestly and frequently with your treating physician will help you to keep your legs and feet healthy.

SecondsCount is pleased to also provide this information as a downloadable PDF. We invite you to print it and share it with others, including your healthcare providers.