



Diabetes and Vascular Disease

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Resources for patients, families and physicians

Considered one of the largest global health emergencies, diabetes is dangerous in large part because high blood sugar damages blood vessels. It also magnifies the effects of other health complications.

For Patients and Families - How Diabetes Affects Vascular Health

For more information, see:

- [Type of Diabetes Suggests Different Treatment Algorithm for Chronic Limb-Threatening Ischemia](#)
- [Have Diabetes? A Few Simple Steps May Keep Your Feet Healthy](#)
- [African Americans, Diabetes and Amputation Trends](#) . African Americans with diabetes face higher risk of preventable amputations.
- [Six Diabetes-Related Vascular Complications. What impact does high blood sugar have on different parts of the body? \[Infographic\]](#)
- [Answers to Your FAQs About Diabetes and Leg Artery Disease](#) By SVS member Dr. George Andros
- [Regular Walks Give Diabetics a Leg Up on Health](#)
- [Diabetic foot care](#) . How to keep your feet healthy.
- [Diabetic foot resources from the APMA](#) (American Podiatric Medical Association)
- [Peripheral arterial disease](#)
- [Peripheral neuropathy](#) information from the APMA
- [Kidney problems.](#) Diabetes can impact the blood vessels that serve the kidneys. This can lead to kidney failure, dialysis and/or a kidney transplant
- [Heart attack and stroke.](#) Both can be caused by vascular damage, which is increased by diabetes. Learn more about how vascular disease can cause stroke .

Related illnesses of concern to patients with diabetes:

Arm Artery Disease

High Cholesterol

Peripheral Aneurysm

Renovascular Conditions

Downloadable brochures:

DIABETES AND VASCULAR DISEASE

YOUR VASCULAR HEALTH

Diabetes Mellitus is a disease that affects the body's ability to absorb glucose, which is a form of sugar and a major source of energy. There are two types of diabetes, Type 1 (formerly known as juvenile diabetes) and Type 2 (formerly called adult onset diabetes).

Both cause high levels of glucose in the blood stream. High blood sugar causes many of the long-term effects of diabetes. Too much sugar in the blood damages the linings of the arteries of all sizes, and that can cause atherosclerosis, in which arteries are weakened and/or clogged with plaque.

GLUCOSE IN THE BLOOD

NORMAL LEVEL **DIABETES**

ATHEROSCLEROSIS

HEALTHY VESSEL **WITH PLaque**

Simple Plaque **COMPLICATED PLaque**

Atherosclerosis in DIABETIC PATIENTS can lead to:

- **Kidney damage.** Kidneys have tiny blood vessels that remove waste from the blood, but diabetes blocks these blood vessels. As the disease progresses, the kidneys lose function and eventually fail.
- **Retinopathy.** High blood sugar can cause tiny blood vessels in the eyes to become blocked. When your eye tries to grow new blood vessels, they grow abnormally, eventually leading to blindness.
- **Peripheral artery disease.** Glucose damage to the arteries that feed oxygen and nutrients to the legs and feet can lead to pain in the legs, foot sores that won't heal, chronic pain from poor circulation and in some cases, amputation.
- **Neuropathy.** In this condition, the patient loses feeling in the feet and toes. Decreased blood flow caused by clogged arteries can damage the nerves in the extremities.

If you or someone in your family has DIABETES, be aware that:

- Patients with diabetes are more likely to get vascular disease.
- Patients with both diabetes and vascular disease are at risk of amputation, blindness, kidney failure and other serious disabilities.

SVS Society for Vascular Surgery **SVS** Foundation

For more information visit Vascular.org
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English

 Español

More info at Patient Resources

For physicians

Recent diabetes-related articles from the *Journal for Vascular Surgery*:

Preoperative Hemoglobin A1c Level as an Independent Predictor of Perioperative Complications After Revascularization in Diabetic and Nondiabetic Critical Limb Ischemia Patients . June 2019.

Outcomes associated with hyperglycemia after abdominal aortic aneurysm repair . March 2019.

Diabetes, dysglycemia and vascular surgery . July 2019.

Lower Limb Amputations in Patients With Diabetes and Peripheral Artery Disease: A Time-Series of Trends (2005-2016). Sept. 2018

The association between diabetes and thoracic aortic aneurysms . July 2018

Diabetes-Related Factors and Abdominal Aortic Aneurysm (AAA) Events: The Atherosclerotic Risk in Communities Study. July 2018

Treatment outcomes in diabetic patients with chronic limb-threatening ischemia. Feb. 2018

Topical Oxygen Therapy Closes Chronic Diabetic Foot Ulcers. Sept. 2017

Location of Diabetic Foot Ulcer Affects Wound Outcomes. June 2017

Predictors of Unplanned 30-Day Readmission in Diabetic Foot Wounds. March 2017

Other resources:

Rethinking Diabetes Oct. 25, 2018

The importance of exercise when you have diabetes Sept. 25, 2018

Interactive clinical practice guidelines app

Building effective partnerships between vascular surgeons and podiatrists .

American Podiatric Medical Association

Educational Slides for the The Management of Diabetic Foot: A Clinical Practice Guideline by the SVS in Collaboration with the APMA and SVM [PDF]

All SVS Clinical Practice Guidelines

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