

## 'Upside' to diabetes really isn't

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(HealthDay)—Type 2 diabetes can reduce your chances for a rare but potentially fatal weakness of blood vessels, a new study says. But while this may sound like good news, it's not.

Swedish investigators found that type 2 diabetes significantly decreases the long-term risks of [aortic aneurysm](#) and [aortic dissection](#), two conditions that can lead to [internal bleeding](#) due to rupture of blood vessels.

But the mechanism that reduces risk for these rare conditions also increases your risk of developing hardened arteries, a much more serious health problem that can lead to heart attack and stroke.

"We have to make sure people don't think, 'Oh, good, I have diabetes type 2, this is good news—because it's not,'" said Dr. Derek Brinster, director of aortic surgery at Lenox Hill Hospital in New York City. "You are at high risk if you have diabetes type 2 for dying earlier than you should from cardiovascular disease."

Aortic aneurysm is a balloon-like bulge caused by weakened walls of the aorta, the main artery that runs from the heart through the chest and abdomen.

Aortic dissection involves blood seeping through a tear in the inner lining of the aorta, causing the inner and outer layers of the blood vessel to separate.

Both conditions can cause the aorta to rupture, resulting in often-fatal internal bleeding. Popular actor John Ritter died from an undiagnosed aortic dissection in September 2003.

It has been known for at least two decades that diabetes decreases the risk of aneurysm, but the reasons behind this phenomenon are not clear, said Dr. Robert Eckel, a professor and chair of atherosclerosis with the University of Colorado Anschutz Medical Campus.

To further explore this association, researchers in Sweden led by Dr.

Tarik Avdic from the Swedish National Diabetes Register compared data on more than 448,000 people with type 2 diabetes against 2.2 million people without diabetes.

They found that people with diabetes had a 28 percent decreased risk for aortic aneurysm and a 47 percent lower risk of aortic dissection when compared to people without diabetes.

The researchers theorized that high sugar loads in the bloodstream potentially strengthen the walls of [blood vessels](#), making them less likely to balloon or tear.

However, the same process also could contribute to hardening of the arteries, said Brinster, who played no role in the study.

"It's this double-edged sword," Brinster said.

Eckel agreed. "We know patients with diabetes have more atherosclerosis in general," he said. He also wasn't involved in the research.

The benefits observed in this study apply to relatively rare blood vessel conditions, Brinster added. Aortic aneurysm affects 5 to 10 people out of every 100,000, while aortic dissection affects 2 to 4 out of every 100,000 people.

"These are very small numbers of people in whom you are decreasing risk," Brinster said, noting that stroke, heart disease and heart attack related to type 2 diabetes are much more common.

Brinster added that medications people take for diabetes also might strengthen arteries, and thus potentially could explain some of the reduced risk.

"Metformin is one of the most popular drugs taken for [diabetes](#), and if you're taking metformin we know there's a beneficial effect to [cardiovascular disease](#)," Brinster said.

The study was presented Tuesday at the European Association for the Study of Diabetes' annual meeting, in Lisbon, Portugal. Until published in a peer-reviewed medical journal, research presented at meetings is usually considered preliminary.

**More information:** Derek Brinster, M.D., director, aortic surgery, Lenox Hill Hospital, New York City; Robert Eckel, M.D., professor and chair, atherosclerosis, University of Colorado Anschutz Medical Campus; presentation, European Association for the Study of Diabetes' annual meeting, Lisbon, Portugal, Sept. 12, 2017.

For more on aneurysm, visit the [U.S. National Heart, Lung and Blood Institute](#).

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