

THE DIABETES – HEART DISEASE CONNECTION

...and what it means to you



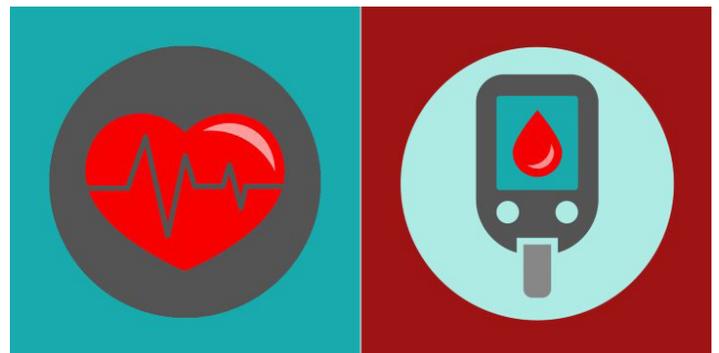
Understand the interactions between these two conditions. Decades ago, data from the historic Farmington Heart Study revealed that having diabetes significantly increases your risk of developing cardiovascular disease. In the intervening years, scientists have learned more about how the two

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deadly diseases interact. But the magnitude of the problem has expanded as well. Currently, two-thirds of people with diabetes eventually die of heart disease or stroke.

How diabetes hurts your heart

“Diabetes harms your heart in several major ways,” says Dr. Benjamin Scirica, a cardiologist at Harvard-affiliated Brigham and Women’s Hospital. It causes chronic inflammation (an activation of the immune system) and high levels of blood sugar (glucose). Both conditions injure the walls of the arteries, making them more prone to developing atherosclerosis.



Elevated blood sugar also stiffens the arteries so they don't expand as well, and makes blood platelets stickier and more likely to form blood clots. Diabetes can also cause scar tissue to form in the heart muscle.

Lowering your risks

"Increased caloric intake and decreased physical activity lead to obesity and diabetes at a younger age. Therefore, more and more people are at risk for dying of cardiovascular disease much earlier than before," says Dr. Scirica. "But we now know a lot about the benefits of controlling cardiac risk factors in people with diabetes."

In addition to not smoking, it's very important to get physical activity—ideally in sessions of 45 minutes to an hour, five times a week. "In someone with diabetes and cardiovascular disease, exercise is a two-fer: it strengthens your cardiovascular system and improves your glucose management so you don't have to rely as



Experts are less certain when it comes to blood sugar control. Very tight control—keeping blood sugar as close to a normal range as possible—has not proven to be the best approach for everyone. Instead, the idea to individualize treatment based on the person's age and other medical conditions and find an approach that can effectively control blood glucose while avoiding episodes of extremely low blood sugar, says Dr. Scirica.

New medications

Joining the arsenal of next-generation diabetes drugs are some new medications that belong to a new drug category known as a sodium-glucose cotransporter 2 (SGLT2) inhibitor. These agents block the reabsorption of glucose by the kidney and increase the excretion of glucose in urine, thereby lowering glucose levels in the blood. Unlike some of the other diabetes drugs, these medications do not seem to increase the risk for very low blood sugar. As an added advantage, they appear to promote weight loss. However, SGLT2 inhibitors are not appropriate for people with chronic kidney disease, which is often a complication of long-term diabetes, and they can increase the risk of genital infections. But over all, access to newer and safer drugs for diabetes management is making it possible to better tailor glucose-lowering therapy to suit each patient's needs, says Dr. Scirica.



much on diet and medicines," says Dr. Scirica. Exercise also helps promote weight loss, which reduces the risk from both diseases. When it comes to diet, find a heart-healthy eating plan you can sustain over many years.

To reduce your cardiac risk, people with diabetes and heart disease should consult their physician to see what medications would best help lower blood cholesterol.

