

Heart Disease and Diabetes: What is the link?

The link between diabetes and cardiovascular disease, including definitions and risk factors.

Heart disease is the leading cause of death in men and women in the U.S. The most common cause of heart disease is accumulation of cholesterol in the arteries that supply the heart with blood. The medical term is atherosclerotic cardiovascular disease (ASCVD) and it describes the buildup of cholesterol that results in narrowing of the heart's blood vessels.

Key risk factors for heart disease, also called cardiovascular disease, include high blood pressure, high cholesterol and smoking. Other contributors to heart disease include diabetes, obesity, poor eating habits, physical inactivity, and excessive alcohol use.

People with diabetes are twice as likely to have a heart attack or a stroke as people without diabetes. Among people with diabetes over age 65, approximately 68% die from heart disease and 15% die from stroke. The chance of developing heart disease among people with diabetes is not dependent on how well you manage your blood glucose.

So, when we think about diabetes, we should really be thinking about heart disease as well!

To most people, heart disease means heart attacks, chest pain or stroke. However, sometimes heart disease hides among a group of symptoms that are only slightly elevated above normal levels. People who possess any three of the following are defined as having metabolic syndrome and have twice the risk of developing heart disease:

- Large waistline – greater than 35 inches for women, and 40 inches for men
- High triglycerides – greater than 150 mg/dL on a fasting blood test
- Low HDL “good” cholesterol – less than 40 mg/dL on a fasting blood test
- High blood pressure – greater than 130/85 mmHg or taking blood pressure-lowering medicine
- High blood glucose – greater than 100 mg/dL on a fasting blood test.

Is there a tool to help me estimate my risk of heart disease?

The ASCVD Risk Estimator (<http://tools.acc.org/ASCVD-Risk-Estimator/>) is a simple way to calculate the chance of developing heart disease, heart attack or stroke in the next 10 years.

How does diabetes affect my cholesterol?

Your body uses blood glucose for energy and insulin is what carries it to the muscles. People with diabetes do not have enough insulin to move blood glucose from their bloodstream into their muscle cells. Because your muscles always need energy, your liver combines fat (triglycerides) with cholesterol for use as an alternate energy source. So, when your blood glucose is high, your triglycerides and cholesterol levels also tend to be high. Management of high cholesterol focuses on blood glucose management and statin medication therapy.

Caution! Iceberg Ahead!

Heart disease is like an iceberg. As the Titanic sailed along, only the tips of the iceberg appeared above the water. The captain did not see all the points of the ice underneath. With diabetes, risk factors of heart disease peak out at different times. For some people high blood pressure is the first sign of danger; however, for others high cholesterol suggests an impending collision. So, like the captain scanning the water, it is extremely important for people with diabetes to routinely monitor for hidden risk factors of heart disease.

