Diabetes and the Risk of Heart Disease

by COLLEEN KELLY

Diabetes and Heart Failure

There is a strong correlation between diabetes and various complications. Diabetes affects the vasculature of the body.

According to the American Heart Association, at least 68% of people over the age of 65 who had diabetes died of some form of heart disease. In addition, adults with diabetes are two to four times more likely to die from heart disease than adults who don't have diabetes.

Why are people with diabetes more likely to be at risk for heart failure and cardiovascular disease?

The Link Between Diabetes and Heart Failure

People with diabetes are more likely to have certain comorbid conditions than those without diabetes:

- **Obesity**: obesity is strongly associated with insulin resistance. It is also associated with the development of heart disease. Being obese and having insulin resistance can also lead to other risk factors, such as hyperlipidemia. Losing weight can increase insulin sensitivity.
- **Hypertension, or high blood pressure**: hypertension is a leading risk factor for heart disease. In addition, there are many studies that link hypertension to insulin resistance. Studies also note that when patients have hypertension and insulin resistance, their risk for cardiovascular disease doubles.
- **Hyperlipidemia and hypertriglyceridemia**, or high levels of blood fats: having hyperlipidemia is linked to heart disease as well as insulin resistance.

In addition, those with diabetes are more likely to have the following poor habits:

- **Smoking**: this habit increases the likelihood of many diseases.
- **Being sedentary**: this is a modifiable risk factor — insulin resistance worsens with being sedentary. Increasing physical activity will reduce insulin resistance and reduce the likelihood of cardiovascular disease.

People with the above risk factors are at an increased risk for developing heart failure and cardiovascular disease.

You'll notice that we mentioned the term **"insulin resistance"** numerous times above. Insulin resistance is a precursor to diabetes, though it typically occurs concurrently with type 2 diabetes. Insulin resistance is defined as "when cells in your muscles, fat, and liver don't respond well to insulin and can't easily take up glucose from your blood. As a result, your pancreas makes more insulin to help glucose enter your cells."

What You Need to Be Aware of

Though these statistics and risk factors may sound grim, you should be aware that you can reduce your risk for developing heart failure, cardiovascular disease and other diabetes-related complications.

According to the Centers for Disease Control and Prevention, "In the last 20 years, rates of several major complications have decreased among US adults with diabetes. The greatest declines were for two leading causes of death: heart attack and stroke."

The following tips can help you manage your health, which will reduce the risk of diabetes-related complications:

- Be active for 150 minutes per week (this equates to about 30 minutes, 5 days per week!).
- Lose weight if you are overweight or obese (a 5% to 7% weight loss can reduce complications).
- Take all medications as recommended by your healthcare provider.
- Keep appointments with healthcare providers, such as your physician, dentist, podiatrist, eye doctor, certified diabetes educator and dietitian.
- Manage the ABCs: get your **A**1c drawn every 3 months and keep it at the target as outlined by your healthcare provider, aim for a **b**lood pressure of 140/90 mmHg or less, **c**ontrol your cholesterol levels and stop smoking.

How to Properly Manage Your Diabetes in Order to Reduce the Risk of Complications

Another great way to reduce your risk of developing complications is keeping your blood sugar levels in check.

Depending on how on what type of diabetes you have and your treatment plan, you may need to check your blood sugar once per day, or as much as four to six times per day.

Typical blood sugar goals are outlined below; your healthcare provider may have different goals for you. However, these are standardized goals for most people:

- Fasting and before meals: between 80 and 130 mg/dL
- Two hours after a meal: less than 180 mg/dL

The best way to keep your blood sugar at target is to ensure that medications (whether they are oral, injectable, or insulin) are taken as prescribed. Blood sugar levels should be taken as recommended — after all, if they are not checked, you do not know if they are at target and if dosing needs to be adjusted! A blood sugar log with medication and insulin should be kept for healthcare provider review.