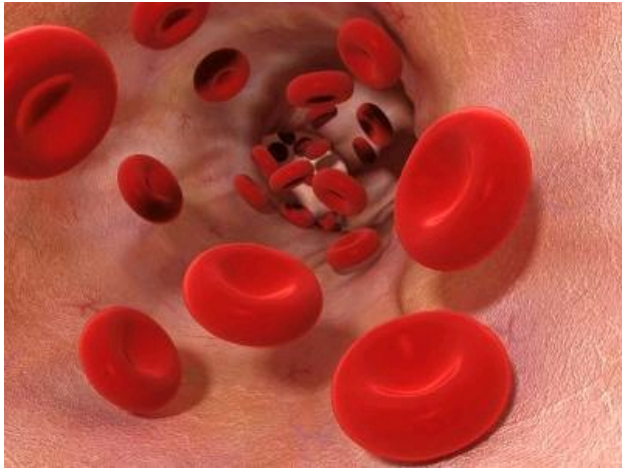


How Can Diabetes Cause Atherosclerosis?

By Allen Smith, eHow User



Diabetes

Diabetes is a disease of the cardiovascular system, where there is either a shortage of or resistance to insulin. Insulin is needed to help the body process blood sugar, converting it to energy and proper cell function.

There are two types of diabetes: type I, often called "insulin dependent diabetes" and type II, called "adult onset" or "insulin resistant" diabetes." Type I diabetics require insulin injections because their pancreas does not produce enough insulin. Type II diabetics produce enough insulin, but their cells are resistant to insulin.

Atherosclerosis

Atherosclerosis is often called "hardening of the arteries" and causes reduced arterial blood flow to vital organs. If the blood flow is reduced in the "coronary arteries"--the arteries that supply blood to the heart--a heart attack can result. Reduced blood flow to the brain can cause strokes. Reduced blood flow to the extremities can cause "peripheral artery disease" or PAD.

Diabetes and Atherosclerosis

Scientists have discovered that diabetics are at high risk for developing atherosclerosis through a variety of mechanisms. First, high concentrations of glucose in the blood irritate the lining of the arteries that promotes the accumulation of "plaque." When the inside of an artery is blocked by plaque, the blood supply to that area of the body is reduced or completely blocked.

The accumulation of plaque causes an inflammation of the inner lining of the arteries. Thinking that plaque accumulations are the intruding enemy, immune cells contained in the circulating blood attacks the plaque. This leads to more inflammation, swelling and rupture.

Abnormal levels of circulating glucose can also lead to high concentrations of "free radicals." Free radicals are invasive molecules that attack healthy cell tissues, resulting in the damage and destruction of vital organs.

Resources

- [How Diabetes Can Drive Atherosclerosis](#)