CHN Health Matters

Written by by P. Michael Shattuck, CHN Family Physician Tuesday, April 15, 2014 5:04 AM

Diabetes

This article is focused on another of the major risk factors for coronary artery disease, and will provide information about diabetes. Previous articles reviewed smoking and hypertension.

Diabetes is prevalent in our society. If you are not diabetic, you surely have relatives or friends who are. The incidence of diabetes is rising rapidly and seems to correlate with the rising rate of obesity.

In 2010, the incidence was estimated at 25.8 million Americans or about 8.3 percent of the population. In Waushara, Winnebago, Marquette, and Green Lake Counties the incidence is even higher at 9-10 percent.

Diabetes is a metabolic illness characterized by the inability to normally control the concentration of glucose (or sugar) in the blood stream. A high glucose level not only leads to problems with blood circulation, but also affects kidney function, nerve function (neuropathy), ability to fight infection, and eye function. Diabetes is the leading cause of blindness and kidney failure, and 60 percent of those having limb amputations are diabetic.

There are two types of diabetes. Type 1 Diabetes is characterized by a lack of insulin and diabetics need insulin to survive. Insulin is the hormone produced in the pancreas that pushes glucose from the blood stream into the tissues where it can be used. Without insulin glucose builds up in the blood and the tissue is starved of its energy source. This can result in a condition referred to as diabetic ketoacidosis or DKA which is acutely life threatening. Type 1 Diabetes tends to present in childhood or adolescence.

The second type of diabetes is Type 2 Diabetes, which is much more common than Type 1. Type 2 Diabetes tends to occur in adults and is more likely if one is older and obese. About nine out of 10 diabetics have Type 2, and tend to have insulin but it does not work effectively enough to control their blood sugar. Type 2 diabetes can come on slowly and is not as acutely life threatening as Type 1. Type 2 Diabetes can be treated with diet, exercise, and pills. Insulin may be necessary if the other measures are ineffective.

CHN Health Matters

Written by P. Michael Shattuck, CHN Family Physician Tuesday, April 15, 2014 5:04 AM

One of the major symptoms of diabetes is thirst due to dehydration. Normally the kidney is able to keep the sugar in our blood as it does its job of filtering the waste out of the blood. If the sugar level rises too high, the kidney is no longer able to keep the sugar from spilling into the urine. Then the sugar is expelled into the urine taking excess fluid with it and causing dehydration.

Treatment of diabetes is focused on trying to avoid the long-term complications of the disease by controlling the blood sugar level. The challenge of treating diabetes is to control the sugar so that it is not too high while avoiding a sugar that is too low. Hypoglycemia is the term used for a sugar that is too low. The brain needs a steady supply of sugar to maintain normal function. Low blood sugar can cause confusion, sweating, tremulousness, and loss of consciousness. This can be a very serious problem that requires sugar to be given immediately.

Many believe Diabetes is caused by a genetic predisposition to the illness combined with factors that increase the susceptibility. A diet high in simple sugars and simple carbohydrates greatly increases the susceptibility. The best way to avoid diabetes is to control weight through exercise and healthy eating. Since Type 2 Diabetes tends to be associated with a gradual rise in the blood sugar over time, it can be diagnosed through screening tests. Testing the blood sugar to screen for diabetes should be done regularly, even if no symptoms are present.

If you have diabetes, work with your provider to try to control it. If you are not diabetic, stay active and eat healthy to try to avoid it and stay healthy my friends.