

# DIABETES

## Prevention and Treatment in 2014

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NEW HANOVER-PENDER COUNTY MEDICAL SOCIETY

Diabetes is a disease which affects nearly all of us, either directly with the diagnosis, or indirectly, through our families and loved ones. Many have seen the devastating effects of blindness, limb amputation, kidney failure and dialysis, heart disease and early death. It has been said that one could have diabetes for five years before having symptoms or a diagnosis. Think of five years of termite damage to a house, or five years of pine straw building up in gutters, or five years of scum around the bathtub! Could we be taking better care of our homes than our bodies? In some cases the answer may be “yes”. But, read on for ways to prevent diabetes, diagnose the disease, and treat diabetes and its complications.

Prevent diabetes?? Yes. One study in *The New England Journal of Medicine* showed that at-risk individuals (overweight, middle-aged) who lost 10% of their body weight over 2 years and increased their fiber intake and physical activity actually **decreased** their risk of diabetes by 58% over the next four years. How many opportunities in life do we have to get those returns? Not many. However, weight loss and regular exercise are not easy. It may be helpful to recruit a buddy or partner if

one is serious about making these life changes. In the study mentioned, those who lost weight and exercised also had regular counseling to help educate on meal planning and keep the study subjects on track. Even if diabetes does manifest, it is best to delay its onset and time for complications to develop.

How can diabetes be diagnosed? Ideally, diabetes is diagnosed before symptoms occur. That means having a conversation with your family physician about your risks, family history and any symptoms that might be present. A fasting blood sugar of 126 or greater on 2 separate occasions is enough to diagnose the disease. It is known that blood sugars can be elevated after meals for a longer period of time than is normal and this process can be an early indicator of diabetes. So, any blood sugar at any time over 200 is diagnostic for the disease, and any 3-month average blood sugar (also known as a hemoglobin A1C) over 6.5% gives the diagnosis. Another test frequently done is the glucose tolerance test. In this test, a patient is asked to drink a glucose drink with 75 grams of the sugar. Two hours later, the blood sugar is checked and if greater than or equal to 200, the diagnosis is made. There is a process known as impaired fasting glucose where the blood sugar is not normal, but also not high enough for diabetes to be diagnosed. This is the stage during which the preventative measures discussed above can have the greatest impact in delaying or preventing the disease.

Symptoms can range from no symptoms at all to very high blood sugars, frequent thirst, frequent urination, weight loss, hunger, blurred vision, and certain infections. In Type 1 or insulin-dependent diabetes (5-10% of diabetes), a life threatening build up of acids in the body or extremely high blood sugars can cause death.

How is diabetes treated? Type 1 diabetes is treated with insulin alone although there are different types of insulins now available and many delivery devices for injection. Type 2 diabetes (previously referred to as non-insulin-dependent diabetes and the most common form) is usually treated with oral medications which work to reduce blood sugar through various mechanisms. Several of these drugs are generic and are well tolerated. Again, the earlier diabetes is diagnosed and treated to goals, the less likely there will be damage to organs in the body. The best way to do this is with regular exercise and diet. Nutrition counseling is an essential way to understand how foods work to increase blood sugar. This is advised at diagnosis and yearly to ensure patients are optimizing their meal planning. Also, discuss with your family physician how best to screen for damage to eyes, kidneys, heart and limbs including the feet.

The best way to treat diabetes is through preventing it for as long as possible. Know the risks and know your blood sugar!



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