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Diabetes Education Programs Reduce Risk of Complications

Many people know at least one person with diabetes, but few of us truly understand what this disease is. In reality, diabetes is a group of chronic diseases characterized by defects in the production or utilization of insulin in the body. Left untreated, diabetes can lead to serious complications and death. In fact, diabetes is the 6th leading cause of death in the United States. In order to increase awareness about diabetes and the importance of self-care measures, November has been designated National Diabetes Month.

The latest national estimates indicate 20.8 million Americans, or 7% of the population, have diabetes. There are at least 14.6 million diagnosed cases, and about 6.2 million people who have diabetes but do not know it. The Centers for Disease Prevention and Control believe that 30% of the cases of diabetes are undiagnosed because the symptoms usually develop slowly, often not becoming severe until several years after the onset of the disease.

While there are several types of diabetes, the two most common are known as Type 1, or insulin dependent diabetes, which comprises 5-10% of known cases of diabetes, and Type 2, or adult-onset diabetes, accounting for 90-95% of diagnoses cases. Both forms of this disease share common symptoms -- frequent urination, excessive thirst, extreme hunger, unusual weight loss, increased fatigue, irritability, and blurry vision.

In Type 1 diabetes, the pancreas stops producing insulin completely. Insulin is required to transport the glucose (sugar) ingested in meals to the various cells to be used as fuel for those cells. Without insulin, the cells do not receive the energy they need to carry out their respective functions. People with Type 1 diabetes must have insulin delivered by injection or a pump to survive.

Type 2 diabetes occurs either when insulin production by the pancreas continues, but is insufficient, or when normal amounts of insulin are produced, but the cells "refuse" to use it. Either way, when glucose is not used by the cells, it builds up in the bloodstream, resulting in higher than normal glucose levels. The cells do not receive the energy they need to function, and over time, the eyes, kidneys, nerves, and/or heart can be harmed. Unlike people with Type 1 diabetes, Type 2 diabetes can be controlled by following a program of healthy eating and regular exercise, usually supplemented by oral medication.

Diabetes is a disease that affects males and females, young and old, and every race and ethnicity, although people of Hispanic, African American, and Native American heritage have an even higher risk of developing this condition than white Americans. Further, for people from every background with diabetes, the risk of death is nearly 2 times the risk for non-diabetics of similar age. Even though diabetes is under-reported as a cause of death, the CDC notes that this disease contributed to 224,092 deaths in 2002, and was listed as the 6th leading cause of death in the U.S.

If diabetes is not treated and controlled, it can lead to serious complications. The death rate from heart disease for people with diabetes is twice as high as for those without this condition, and the stroke death rate is 2 to 4 times higher. Three quarters of adults with diabetes have high blood pressure, and diabetes is the leading cause of kidney failure. The most common cause of blindness in adults between the ages of 20-74 is diabetes; every

year, 12,000 to 24,000 people lose their sight due to diabetic retinopathy. According to the CDC, mild to severe forms of damage to the nervous system are experienced by 60-70% of people with diabetes, including loss of sensation or pain in the hands or feet, impaired digestion, and carpal tunnel syndrome. Diabetes also accounts for over 60% of amputations of the lower extremities that are not the result of traumatic injury. Cases of gum disease and pregnancy complications also are more common in people with diabetes.

In order to reduce the likelihood of developing these complications, people need to be educated about diabetes management as soon as they are diagnosed with this condition. Many hospitals and local health departments offer programs conducted by Certified Diabetes Educators to give people with diabetes the knowledge and skills they need to manage their disease. In a diabetes self-management program, education is provided about healthy eating, physical activity, blood glucose monitoring, taking medication, and reducing risks. The diabetes educator will also help the individual master coping skills and problem solving strategies that will be helpful in learning to live with diabetes. Some programs charge a fee that is covered by Medicare and most insurance plans.

To find a diabetes education program in your area, contact the American Association of Diabetes Educators at www.diabeteseducator.org (800-338-3633) or the American Diabetes Association at www.diabetes.org (800-342-2383). To learn more about diabetes, visit the CDC website at www.cdc.gov/diabetes. For further information about our next diabetes education program or other public health concerns, contact the Central Connecticut Health District at www.ccthd.org (860-721-2822).

