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It has been established that people of African descent living in the United States, experience a diabetes rate that is twice than those experienced by Caucasians. According to a report released in 2005 by the National Institute of Health, people of African descent in the US, have an 80 percent higher rate of death from stroke, a 50 percent higher rate of death from heart disease and a 320 percent greater rate of diabetes related end-stage renal disease than those in the general population. If untreated, diabetes could lead to coronary artery disease, heart attack, congestive heart failure, kidney damage and death.
Diabetes is the 6th leading cause of death in Minnesota, the leading cause of blindness, kidney failure and lower-limb amputations. In our State, there are racial and ethnic disparities in the prevalence, complication and death rates from diabetes, and in the preventive care received by those who have it. The disease is also more likely to develop at a younger age among peoples of African descent compared to Caucasians. African American adults are far more likely to develop adult-onset, or type 2, diabetes than adult whites with women much more likely than men to develop the disease.

In Minnesota, diabetes is also the leading medical risk factor during pregnancy. Complications during pregnancy can result in poor outcomes for both the mother and the child. Pre-existing diabetes-complicated births are 2.1 times greater in African Americans. One in four people in Minnesota have pre-diabetes including 92,000 children, some 78% are overweight or obese, 42% have high blood pressure, 38 % have high cholesterol, and 16% currently smoke.

Racial and ethnic disparities in diabetes complications and diabetes-related deaths are made worse by many factors. These include lack of culturally appropriate diabetes preventative education materials, support systems, lack of cultural diverse and competent health care providers are the barriers to effective diabetes management and prevention.
In the State of Minnesota, the annual cost of diabetes in terms of medical cost, disability, loss of work and premature death is estimated to be over $2.3 billion. The social and economic burdens on the State and on the individuals due to undiagnosed and untreated diabetes are very high. We believe that morbidity and mortality rates due to this disease can be reduced through simple preventive health education.

Crown Medical Center in collaboration with the office of Minority and Multicultural Health of the

Minnesota Department of Health are developing and implementing interventions that will bridge the gap in healthcare disparity particularly for diabetes in the minority and immigrant African communities.

Simply put, diabetes is a disorder of metabolism and as the general population gets more overweight the incidence of the disease is expected to increase in the future.
The most commonly asked questions about the disease include the following:

What is diabetes?
What can happen to me if my diabetes was not properly treated or controlled?
Who is at risk of getting diabetes?

Almost every person of color knows someone who has diabetes. An estimated 18.2 million people in the United States of America or about 6.3 percent of the US population have diabetes. Of these number, an estimated 13 million people have been diagnosed while about 5.2 million people who have not visited a doctor for screening are yet to be diagnosed. It has been showed that each year, about 1.3 million people aged 20 or older are diagnosed with diabetes.

In view of the serious nature of diabetes it becomes important to educate and engage the general public especially communities of color on the disease.

What is diabetes?

Diabetes is a disorder of metabolism, which is the way our bodies use digested food as source of energy and for growth. Most of the foods we eat are broken down into glucose, a form of sugar which is the main source of energy or fuel for the body.

After consuming a good meal, the food is digested or broken down into glucose. The glucose passes from the bloodstream into the cells of the body. The cells utilize this simple sugar for growth and for energy production. For glucose to get into cells and to be properly used for these purposes (cell growth and energy production), a hormone called insulin must be present. Insulin is produced by the pancreas, a large flat- shaped gland that is located behind the stomach.

For normal individuals, when we eat, the pancreas automatically produces the right amount of insulin to move glucose from blood into our cells. For the individuals that have diabetes the pancreas either produces little or does not produce any insulin at all. In some cases, because of one problem or the other, the cells do not at all respond appropriately to the insulin that is produced.

Since glucose is not metabolized or broken down for use by the body, glucose therefore builds up in the blood then overflows into the urine, and passes out of the body. The body loses its main source of energy or fuel even though the blood contains large amounts of glucose which is wasted through excretion in the urine.

There are three main types of diabetes:
Type 1 diabetes

Type 2 diabetes
Gestational (pregnancy associated) diabetes

Type 1 diabetes is a form of autoimmune disease. An autoimmune disease results when the body's defense cells, whose duties are to fight foreign infections turn against any part of the body. In type 1diabetes, the body defense cells also called the immune system attacks the insulin-producing cells, called Beta cells located in the pancreas. Over time, the body defense cells ultimately destroys the Beta cells and eventually the insulin producing pancreas causing them to produce little or no insulin. Therefore individuals with type 1 diabetes must take daily insulin injections. As of date we do not know exactly what causes type 1diabetes but we think that autoimmune disease, genetic, environmental factors, and possibly viruses could be involved or incriminated. Type 1 diabetes accounts for about 5 to 10 percent of cases diagnosed in the U.S and the incidence is common in children and young adults, but can also occur at any age.

Symptoms of type 1 diabetes develop over a short period of time and it is associated with increased thirst and urination. It is not uncommon for the individual to experience constant hunger, weight loss even when they are fully fed. Individuals may also have blurred vision and become easily tired on minor exercise or exertion. A person with type 1 diabetes if not quickly and effectively treated, they can go into a life-threatening diabetic coma which may result in death.

Type 2 diabetes is generally the most common form of diabetes. Majority of diabetic patients seen at Crown Medical Center have this form of diabetes. Type 2 diabetes is readily seen in older people, obese or over weight individuals and in those with a family history of diabetes, and in people who live sedentary or inactive lifestyles. Sometimes we observe this type of diabetes in pregnant women who have gestational diabetes or diabetes associated with pregnancy. This kind of diabetes is common in people of African descent. In type 2 diabetes generally, the pancreas produces enough insulin, but for some unknown reasons, the body cannot use the insulin very well. We call this condition insulin resistance. After many years with this condition the insulin production gradually decreases. This causes glucose to build up in the blood since the body cannot efficiently make use of this simple sugar. Over time, the symptoms observed in type 1 diabetes narrated above will become manifest in these individuals.

As a warning, presentation of one or more of these clinical signs may not necessarily signify that the individual has diabetes but only your healthcare provider can make such a determination and judgment through special laboratory tests.

The last type of diabetes is called gestational diabetes. This develops only during pregnancy. Incidence of gestational diabetes has been observed more often in women of African descent, Native American and Hispanics. Women who have gestational diabetes have a good chance of developing type 2diabetes within 5 to 10 years if not controlled through preventative health education and medication.

What can happen to me if my diabetes was not properly treated or controlled?

Diabetes is now one of the leading causes of death and disability in the United States. Diabetes has been associated with long-term complications that affect almost every part of the person's body. When untreated it could lead to blindness, heart and blood vessel disease, stroke, kidney failure, amputations of limbs, and nerve damage. Uncontrolled diabetes can lead to complications in pregnancy, including birth defects in babies born to women with diabetes.

Who is at risk of getting diabetes?

Diabetes is not an infectious disease like the common cold. That means you cannot get it from your spouse, friend, child or coworker. Certain factors can increase your risk of developing diabetes.

Type 1 diabetes occur equally among males and females, but is more common in whites than in nonwhites, while type 2 is more common in people of African descent, Native Americans and some Asian Americans, Native Hawaiians and Pacific Islanders.

Treatment of diabetes

Since diabetes is a chronic illness that means the patient must learn to manage their illness through ways their physician would prescribe. Generally treatment for diabetes includes insulin shots, use and compliance with prescribed medications, making wise food choices (eating healthy foods), engaging in regular exercise and weight loss. These are summarized below:

1. If you are overweight attempt to lose weight. Excess body fat causes the body cells to become resistant to insulin so attempt at reducing your body fat hence your weight.
2. Eat healthy food and Follow the Pritikin Eating Plan for diabetes. Eat choice carbohydrates over refined carbohydrates. Eat plenty of fresh fruits, vegetables, whole grains and legumes. Your diabetic nurse will assist you with the development of such eating plan.
3. Exercise regularly and increase your daily activity level. Regular exercise regime and physical activities decreases insulin resistance in muscle cells hence allow more glucose to enter the cells and be metabolized.
4. Cut down on your fat and cholesterol intake. Reduction in fat and cholesterol intake in our diets generally reduces the blood cholesterol levels and thus assists with weight loss.
5. Do not over indulge in foods, but eat small, frequent meals. This helps to keep blood sugars within a healthy range. Eating large meals at a time can flood the bloodstream with glucose.
6. Visit your doctor to get screened for diabetes and to receive preventative health education. Finally if you are diabetic, you must be compliant with your medication.

For more information and questions on diabetes and other health related matters, please contact Crown Medical Center or visit us at www.crownmedicalcenter.org

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