

For Your Health

Type 2 Diabetes Mellitus in the African-American Community

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Every day, someone new joins the approximately 3.7 million (14.7%) of all African-Americans age 20 and over in the United States are living with diabetes. It is estimated that one in ten African Americans today has diabetes. This is devastating to our community because the prevalence of this disease is steadily rising. In 1993, it was estimated that 1.3 million African-Americans were affected by this disease. This means that the prevalence has almost tripled over the 15 years. Of these African-Americans living with diabetes, it is estimated that 730,000 are undiagnosed.

What is Diabetes?

Diabetes is a disease in which our body cannot produce enough insulin, which is a hormone that allows sugar (glucose) to enter the cells to be readily used for energy. Blood glucose can rise or fall daily in response to eating, exercise, stress, and illness. The methods of diagnosis of diabetes consist of a fasting blood glucose ≥ 126 mg/dL on two occasions or a random blood sugar test ≥ 200 mg/dL with symptoms of diabetes. Fasting blood glucose (taken prior to no caloric intake for at least 8 hours) is the most common method of diagnosis because it is generally the most inexpensive and simplest technique. There are many possible signs of diabetes. Generally, if the signs persist or more than one occur, you should see your physician.

- Always thirsty
- Always hungry.
- Frequent urination
- Unexplained weight loss
- Blurred vision
- Constant fatigue
- Tingling or numbness in the hands or feet.
- Recurring infections
- Slow healing wounds

African-Americans and Diabetes

The most prevalent type of diabetes among our community is type 2 diabetes. Most common risk factors for developing type 2 diabetes include family history (i.e. parents or siblings with diabetes), impaired glucose metabolism, obesity, physical inactivity, race, and ethnicity. This disease which was typically seen in adults age 30 and over; has been increasing seen in African-American adolescents due to obesity and lack of physical inactivity. Particularly among African-American women, diabetes is the third leading cause of death from disease. It is estimated that one in four African American women over the age of 55 years of age has diabetes. Evidence has shown that if trends continue, African American with diabetes could live 10-15 years less than those without it. African-Americans must take control of their health and begin to educate the community to stop the progression of this disease.

Complications Associated With Diabetes

If you have diabetes, it is important that you seek treatment right away so that you can prevent or delay long term complications associated with diabetes by getting your blood glucose under control. Control means to keep your blood glucose levels as close to normal as possible. Someone without diabetes usually has a blood glucose value < 100 mg/dL. Although this normal range may not be possible for diabetics, you can get very close to this range with proper diet, exercise and medication. Keeping your blood glucose within your goal should help delay complications associated with diabetes. People with diabetes (excluding those who are pregnant) should achieve a blood goal of 70-130mg/dL. I recommend that all people with diabetes test their blood glucose by using a blood glucose monitor at home. The long-term complications of diabetes are more likely to develop in African Americans and tend to occur earlier and more severe.

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- Blindness (Retinopathy)
- Kidney Disease (Nephropathy)
- Nerve Damage (Neuropathy)

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- Amputations
- Heart Disease and Stroke

The complications related to diabetes are serious, potentially life-threatening and greatly affect the African-American community. Diabetes is the leading cause of blindness in the United States. African Americans have a 50% higher change of developing eye disease. When your blood sugar elevated over long periods of time, the small blood vessels in the back of the eye become damaged and swollen. As a result, fluid begins leaking from the blood vessels enter the retina causing blurred vision. In more advanced cases, new blood vessels begin to grow in the eye, which are weak and can bleed thereby causing vision loss. Other complications include cataracts and glaucoma as well. It is recommended that people with diabetes receive yearly eye exams.

African Americans are two to five times more likely to have kidney disease. The kidneys filter out the unneeded things in the blood and pass them into the urine. High blood glucose, blood pressure, and cholesterol damage the blood vessels and the filtering ability of the kidneys. Damage to the filtering system of the kidney causes waste products to stay in the blood. When the kidneys are damaged, things such as protein leave the blood and spill into the urine. If the damage continues, the kidneys will stop working. Your doctor can do a simple test to check for protein in the urine. This test detects small amounts of protein in the urine or microalbuminuria. Protein in the urine has been shown to predict the possibility of dying early from diabetes. It is important that you check how well your kidneys are functioning at least twice yearly.

Diabetes quite often damages your nerves. When this occurs, the nerves do not send out signals properly to your extremities. Some of the signs of nerve damage include stinging/burning sensations, pain, and numbness or tingling in the hands and feet. Often times the damage is so serious that injuries happen to the feet and legs without the person even knowing. Untreated foot problems can cause gangrene, a serious infection that can spread to the bloodstream. Untreated gangrene may lead to amputation of the foot. African Americans are two times more likely to develop diabetes related amputations. Although a contributing factor of amputations involves nerve damage, circulatory problems occur.

People with diabetes are often prone to heart disease and stroke. At least 65% of people with diabetes die because of some form of heart disease or stroke. African-American men in particular are less likely to develop coronary heart disease but 30% more likely to die from the disease. In addition, African-Americans are almost two times more likely to develop a stroke. Risk factors that increase your chances of heart disease and stroke include obesity, high blood pressure, high cholesterol and diabetes.

Through living a healthy lifestyle, you can decrease your risk and prevent the complications related to heart disease. The following guidelines will help to decrease your risk of diabetes.

☞ **Eat healthy** Avoid fast food! Choose foods that are low in calories and fat; replace fat foods with baked foods; try to eat small portions at each meal; add more fish and lean meats to your diet. It is recommended to limit the amount of carbohydrate intake to 45-60 grams per day for patients with diabetes. In addition, encourage consumption of at least 5 fruits and vegetables per day.

☞ **Lose weight** Controlling your weight can help both your blood pressure and diabetes. It is recommended to lose approximately 7% of your body weight if overweight. Losing weight through proper diet and exercise (at least 150 minutes/week) has been shown to reduce the onset of symptoms of type 2 diabetes in African-Americans by 58%. African Americans tend to have very high rates of obesity. 55% of African Americans have a body mass index (BMI) greater than 25m/kg². Black women have the highest rate of obesity compared to any other ethnic group.

☞ **Limit Salt Intake** Studies have shown that the average American eats 25 grams of sodium per day. Excessive salt intake can increase your blood pressure. Controlling blood pressure can potentially reduce the risk of eye, kidney, and nerve complications associated with diabetes by 40%. In addition, there is a reduction the risk for heart disease and stroke among people with diabetes by 33-50%.

☞ **Limit Alcohol Intake** Excessive alcohol use can harm the liver, brain and heart. Excessive use can affect your cholesterol and blood pressure possibly leading to heart failure and stroke. Consuming too many calories from alcohol can increase your chance of obesity and higher risk of developing diabetes. If you don't drink, don't start. If you do drink, drink in moderation. Alcohol should be limited to one-two drinks per day for men and one drink per day for women. A drink per day consists of one 12 oz beer, 4 oz. of wine, 1.5 oz of 80-proof spirits, or 1 oz of 100 proof spirits).

☞ **Stop smoking.** Smoking increases your risk of heart attack and stroke. It also injures blood vessel walls and speeds up hardening of the arteries. It may not be easy, but kicking the habit can have a very positive impact in your health. Smoking can affect your cholesterol, blood pressure, and blood glucose. People smoking with diabetes are three times more likely to develop heart disease than non-smokers with diabetes. Wear nicotine patches or chewing nicotine gum are two viable options to stop smoking. Blood glucose must be monitored as well as they products could potentially raise your blood glucose.

Diabetes in the African-American community is preventable and controllable. You can take control and your life and not let diabetes control you. It's important to understand what diabetes is, possible risks, and ways to decrease your risk.