

D is for Diabetes



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Readers of the Sarver Heart Center newsletter will recall that in our last issue we said “D is for Diet.” We haven’t changed our minds! The link between diabetes and cardiovascular disease is so important that we decided our “ABCs of Heart Disease”

series requires two “Ds” – one for diet and one for diabetes.

The new numbers are out, and the epidemic is even worse than we thought.

According to the Centers for Disease Control (CDC), diabetes in the United States has increased by 14 percent in just two years and now affects 7 percent of the population. Almost one third of the 20.8 million Americans with diabetes have no idea they have developed the disease, putting them at particularly high

risk for developing its most serious consequences: heart disease, stroke, blindness, limb amputations and kidney failure.

These startling statistics – which reflect both the increased age and weight of the average American – come from the National Diabetes Fact Sheet 2005, published on October 27, 2005 by the CDC. When the last fact sheet was released in 2003, the number of Americans with diabetes was 18.2 million.

Pre-diabetes, a condition that indicates a very high risk of developing diabetes, is an even bigger problem, affecting 41 million people in the U.S. between the ages of 40 and 74.

Because the rate of diabetes is rising so rapidly, the CDC estimates that one out of every three Americans born in 2000 will develop the disease, including two out of every five African Americans and one out of every two Hispanic females born that year.

What is diabetes, and what causes it?

Diabetes describes a group of metabolic disorders characterized by a high level of glucose (sugar) in the blood. Although we need glucose, if the level in the blood is too high, the glucose is in the wrong place; not enough of it has been transported from the bloodstream into the cells. In people with normal glucose metabolism, the blood glucose level is maintained in a fairly tight range, between 65 mg/dl and 100 mg/dl in the fasting state (without calories for 8 hours) and less than 140 mg/dl two hours after eating, or after undergoing a glucose tolerance test in the lab. When these levels are higher, it means that the regulatory process has failed.

Type 2 diabetes is a progressive disease

There are two major reasons for high blood glucose levels: either not enough insulin is present, or the insulin does not work properly. The type of diabetes that is increasing rapidly is Type 2, which used to be called Adult Onset (the name was changed because so many children are now affected by this disease). This disease is caused by both of the aforementioned defects. Insulin production, although in some cases higher than normal in pre-diabetes and the early stages of Type

KNOW YOUR DIABETES ABCs

Manage your hemoglobin A1C (blood glucose or sugar), Blood pressure, and Cholesterol. This will help lower your chances of having a heart attack, a stroke or other diabetes problems. These are called the ABCs of diabetes.

A IS FOR THE A1C TEST.

It shows how well your blood glucose has been controlled over the last three months. It should be checked at least twice a year. The goal for most people is a level less than 7. It may be lower for you.

B IS FOR BLOOD PRESSURE.

The goal for most people with diabetes is 130/80. It may be lower for you.

C IS FOR CHOLESTEROL.

The LDL goal for most people with diabetes is less than 100. It may be lower for you.

Adapted from the National Diabetes Education Program (NDEP) <http://ndep.nih.gov>

HEART NEWS FOR YOU

2 diabetes, begins to wane, causing blood glucose levels to rise, and progressively decreases over time so that after 10-20 years of diabetes most patients will require insulin therapy to maintain control of blood glucose levels. One related myth is that patients with Type 2 diabetes who take insulin must do so because they have failed to improve their lifestyle behaviors. Although poor health habits can indeed contribute to both the development of diabetes and the need for insulin therapy, it's important to realize that even with the healthiest lifestyle, people with Type 2 diabetes may need to take insulin.

Diabetes IS a cardiovascular disease

During the past decade it has become increasingly clear that diabetes and cardiovascular disease are closely linked. Diabetes is a major risk factor for cardiovascular events such as heart attacks, strokes and amputations. In addition, the diabetes complications affecting the eyes, kidneys and nerves are all caused, at least in part, by vascular disease. Patients with diabetes who have never had a heart attack have as high a risk of having one as patients without diabetes who have already suffered a heart attack. A study showed that in men who were not aware that they had diabetes, a mildly elevated blood glucose level could predict death from cardiovascular disease

No one's blood glucose is "normally" high

If you have normal glucose metabolism, you could go into a Circle K, buy a 64-ounce soda AND a doughnut, consume everything, and have a normal blood glucose level. Now, I'm not recommending this, just making a point—unless you have either pre-diabetes or diabetes, eating "sugar" or another form of carbohydrate will not cause an elevated blood glucose level. Nor does eating too much sugar cause diabetes. That said, it's also important to understand that, for patients with diabetes, merely controlling the diet is almost never enough to control the blood glucose level. It's important, but usually not enough.

Diabetes Prevention

If you don't have diabetes, you can decrease your risk of developing the disease in the future if you keep your weight down and stay physically active. The Dia-

betes Prevention Program demonstrated that among those at high risk for developing diabetes, a weight loss of 7 percent of body weight along with an average of 150 minutes of exercise each week decreased the risk of diabetes by 58 percent.

What can we do about it?

Diabetes is a chronic disease, for which there is no cure. Most patients with diabetes also have other chronic conditions or diseases, such as obesity, high blood pressure, and unhealthy blood cholesterol levels. These health problems are all related, and in order to decrease the risk of complications such as cardiovascular disease, they must all be aggressively treated and controlled.

A wide variety of treatments are available for diabetes

If you have diabetes, the most important thing is to know the "ABCs of Diabetes." If your personal results don't match the recommended levels, you are at high risk of developing the complications of diabetes, including blindness, kidney failure, nerve damage, amputation, heart attack and stroke. These complications are devastating but preventable in most cases. If you are already doing all you can to stay healthy, and your "ABCs" are not under control, talk to your health-care provider about more aggressive treatments.

In sum, diabetes is an epidemic in the United States and in many other countries around the world. Many of us inherit the tendency to become overweight and develop diabetes, but we can adopt behaviors to decrease our risk of that happening. People who do develop diabetes must be actively involved in their health care. It is important to be aware of important laboratory values and other vital measurements such as blood pressure. Your health-care provider is your partner and will be able to help you reach your goals. Difficult cases or situations may benefit from a referral to a diabetes specialist. Whatever you do, if you have diabetes, continue to strive for good control—it may save your life. ♥

For more information about diabetes, go to the American Diabetes Association (ADA) Web site: www.diabetes.org or call the ADA at 1-800-DIABETES.