

“Just A Little Sugar”: Diabetes and You

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Diabetes is a big problem

Diabetes is a costly and growing problem all over the United States. The cost of diabetes in this country is estimated at more than \$90 billion each year. Diabetes is the seventh leading cause of death in the United States, and one in every seven health care dollars is spent on diabetes.

Why is diabetes so costly, and why is it a growing problem? The complications of diabetes—including blindness, kidney failure, and amputations—require long hospital stays and complicated rehabilitation resources. These complications are not inevitable, but they do happen to many people with diabetes, especially when the disease is not treated properly.

It is estimated that more than 16 million Americans have diabetes, but that only half of them know it. One reason is that the symptoms of diabetes may not be much different than the signs of aging that we all expect (such as feeling more tired than usual or getting up to use the bathroom at night).

Another reason is that some people do not think of diabetes as a serious disease. They use the terms “borderline diabetes” or “just a little sugar” to describe diabetes when insulin injections are not used for control. In fact, all diabetes is serious, not just the type that requires insulin injections.

Some people will have beginning changes in eyes, blood vessels, nerves, or kidneys by the time they are diagnosed with diabetes. When diabetes is not well controlled, most people will experience some of these changes. It is very important that all people with diabetes get diagnosed and get help to start a treatment program aimed at good control of blood sugar.

Activity: Review the definitions of diabetes on the participant handout, especially the warning about “borderline” diabetes. Read and discuss the signs of diabetes with the group. Remind participants that having a family member with diabetes or being of African-American, Hispanic/Latin, American Indian, or Asian/Pacific Island heritage greatly increases the risk of developing diabetes. These persons should ask their doctor about being tested for diabetes at each yearly physical exam.

Testing for diabetes

When the doctor thinks a person may have diabetes, he or she can order some tests. Sometimes the person’s blood glucose (blood sugar) is measured with a finger prick in the doctor’s office as a screening tool. The person may then be sent to the hospital or the lab for a glucose tolerance test. For this test, the person drinks a very sweet liquid and the blood glucose is tested several times over the next two hours.

Another test the doctor can order is called HgA1C or glycosylated hemoglobin. This test can tell the blood glucose average over a long period. It is very helpful to both doctor and patient. People with diabetes should ask their doctors about the HgA1C test.

Blood glucose also can be measured at home. Home testing of blood glucose is simple. It is recommended for all people with diabetes. After testing blood glucose, the results are recorded to share with the doctor or diabetes educator. In this way the person with diabetes can help to take charge of his or her care.

Activity: As you share this information with the group, ask those present if they are familiar with these tests.

Types of diabetes

The way diabetes is treated does not tell whether the person is having problems. No matter what treatment is used, if the blood glucose is higher than normal, we say a person is “out of control” and in danger. Experts believe that blood glucose that is always higher than normal may cause the changes that can lead to blindness, kidney failure, and other complications. Sometimes changing the diet or losing weight is not enough to help blood glucose stay normal; in that case, pills or insulin are used. This does not mean the diabetes is worse, but it does show that diabetes can change over time. So regularly seeing the doctor is important in keeping diabetes under control.

Type 1 diabetes used to be called juvenile diabetes or insulin-dependent diabetes. Only 10 percent of people with diabetes have this kind of disease. It usually happens before a person is 20 years of age. In Type 1 diabetes, the part of the body that makes insulin does not work, and insulin injections must be given to keep that person alive. Children with Type 1 diabetes do not “outgrow” this disease. They must inject insulin into their bodies every day for the rest of their lives.

About 90 percent of all people with diabetes have Type 2. This type of diabetes usually happens after a person reaches 40 years of age. Because many people with Type 2 do not feel sick, they may not be diagnosed and may not get proper care.

Many people with Type 2 diabetes are overweight. Losing as little as 10 pounds can make Type 2 diabetes much easier to control. Losing weight is not easy. Exercising more and cutting down slightly on high-calorie foods can help. Quick weight loss and very-low calorie diets may seem to help in the beginning, but people usually gain weight back quickly once the “diet” is over.

People with Type 2 diabetes sometimes need pills or even insulin injections to get blood glucose under control. This may happen because their bodies

gradually stop making enough insulin as they get older. These people may feel discouraged because all their efforts at weight control and exercise are not enough. They need to remember that if diet and exercise alone do not work, this is not a personal failure. It is the natural way diabetes sometimes happens.

Gestational diabetes is found in 2 percent to 4 percent of all pregnancies. Women who are overweight or have a family history of diabetes may be at greater risk of this disease. It is usually found during the last three months of pregnancy. If this kind of diabetes is not treated right away, it can cause serious problems for both mother and baby.

When gestational diabetes is found, the woman starts a special diet immediately and checks her blood glucose many times a day. If a change in diet does not make blood glucose stay in the special range for this disease, insulin shots are started right away. When the baby is born, the mother’s blood glucose usually returns to normal. Women who have had gestational diabetes are at greater risk for both Type 1 and Type 2 diabetes later in life.

Activity: Review the types of diabetes with participants. Share information about the importance of blood glucose testing for all persons with diabetes. The goal for blood glucose numbers should be set by the doctor and the person with diabetes to help prevent complications and to promote feeling good.

Controlling diabetes

Diabetes is treated many ways. All persons with diabetes need to have a meal plan because food choices affect blood glucose levels, weight, and the risk of heart disease. There is no single diet for all people with diabetes. A registered dietitian or a certified diabetes educator is trained to help people with diabetes make a plan for eating that will help manage blood glucose, control weight, and promote comfort.

People with diabetes need to learn how to check blood glucose at home. If the doctor prescribes medications for diabetes, it is important to know exactly how to use the pills or insulin.

Learning about safe exercise, what to do when traveling or eating out, the danger signs of diabetes

emergencies, and other important facts will take time and patience. People with diabetes and those who care about them need to write down questions for the doctor or diabetes educator. Finding out that you have diabetes can make you feel sad or even guilty. It helps to tell a loved one that they did not cause the diabetes, but that together you and the health care team can find a way to control this disease.

Activity: Share information about the new skills people must learn to control diabetes. Discuss how people with diabetes and family members can get help in learning new skills. Use the referral information in the “More Information” section of the participant’s guide as a resource.

Diabetes can get complicated

Diabetes complications are expensive and life-changing. People with diabetes can take some steps to help prevent or delay these problems.

Heart and blood vessel diseases are the biggest killers of people with diabetes. All people with diabetes should have cholesterol and other blood fats checked regularly. A diet low in animal fat and solid shortenings may be helpful in lowering blood cholesterol. Control of blood pressure is a must! Some people may need to use a low-sodium diet (using less salt and salty foods) to control blood pressure. Blood pressure can be monitored at home if the doctor feels this is important.

All people with diabetes need to have a special eye exam every year. The eye doctor should use drops to dilate the eye so the tiny blood vessels at the back of the eye can be checked. Sometimes a picture will be taken of these blood vessels for the medical record. When there are diabetes changes in the eyes, laser surgery usually can stop these changes and save vision—if these changes are found early enough.

The doctor should order a special urine test at least once a year to find the earliest signs of kidney disease caused by diabetes. This test is for microalbumin in the urine. If the test is positive, the doctor may order more tests, a special diet, or perhaps special medications.

People with diabetes need to check their feet every day to prevent infections. Over time the feet can lose

feeling and can become injured or infected without pain. If this happens, a small infection can lead to a serious problem and even to an amputation. Not just feet, but all body areas should be checked for infections. Infections in the mouth can make blood glucose stay high. People with diabetes should see a dentist twice a year.

One step that can be taken to help prevent complications of diabetes is to stop smoking. The experts tell us that smoking and diabetes are a deadly combination. Smoking increases the already large risk of heart attack and stroke for people with diabetes. Smoking also causes changes in the blood vessels of the feet and may be an important cause of amputations. In fact, people with diabetes should do their best to avoid being around tobacco smoke because smoking is so very dangerous for them.

Activity: People with diabetes may have frequent infections. These infections may be hard to cure when the blood glucose is high. The following demonstration may help people to understand how this works.

You will need:

2 clear glass or plastic cups (8 oz. or larger)

2 spoons

2 packages dry yeast

1 teaspoon sugar

8 oz. warm water

Place cups side by side on table and pour 4 oz. (½ cup) water into each cup. Empty one package yeast into each cup and stir. Add one teaspoon sugar only to cup on right and explain to participants that this represents the person with diabetes who has too much sugar in the blood.

Wait 15 minutes and examine the cups. The cup to which sugar was added will foam much more rapidly than the cup without sugar. The liquid may even rise over the top of the glass.

Table sugar “feeds” the live yeast used for baking. If blood glucose is high enough, there will be glucose (sugar) in the urine, sweat, and other body fluids. This extra glucose can “feed” yeast infections of the skin and vagina, fungus infections of the feet, and infections of the teeth and gums. High blood glucose delays healing time of all infections.

A Test for Diabetes

Ask participants to count the number of times they can answer “Yes” to these questions:

1. Are you 20 pounds or more over the weight your doctor recommends for you?
2. Are you a person under 65 years old who gets little or no exercise in a usual day?
3. Are you between 45 and 65 years of age?
4. Are you over 65 years of age?
5. Are you a woman who has had one baby weighing more than 9 pounds at birth?
6. Do you have a sister or brother who has diabetes? (Remember to include relatives who describe their diabetes as “borderline.”)
7. Do you have a parent with diabetes?
8. Have you ever been told that you have sugar or glucose in your urine?
9. Have you ever been told that your blood sugar was high, even if it wasn’t called diabetes?

Give yourself one point for every “Yes” answer. Add one point for each baby with a birth weight of over 9 pounds and one point for each brother, sister, or parent with diabetes.

If you answered “Yes” to three or more questions, you should see your doctor to have a blood glucose test done. You may be at risk for diabetes.

Activity: Read these tips about special tests to participants. Discuss how diabetes can make changes in a family. Remind participants that good control of blood glucose can help prevent the very worst diabetes complications. Discuss how you can help people with diabetes take charge of this disease.

More Information:

The American Diabetes Association can provide information and referrals to support groups. Call 1-800-342-2383. Check the Web site (<http://www.diabetes.org>).

The American Association of Diabetes Educators can provide educational materials and referrals to a diabetes educator in your area. Call 1-312-424-2426 or check the Web site (<http://www.aadenet.org>).

The Center for Disease Control funds diabetes control programs in West Virginia and all other states. Check its diabetes home page (<http://www.cdc.gov/nccdphp/ddt/ddthome.htm>).

A list of free educational brochures about diabetes is available from the National Institute of Health’s WEB site (<http://www.niddk.nih.gov>).

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