

LEARN: Introduction to Type II Diabetes Slide Presentation

30 minutes

Purpose:

Participants will learn about complications associated with Type II Diabetes

Materials:

- *Introduction to Type II Diabetes* slide presentation
- *Introduction to Type II Diabetes Chart*

Facilitation Steps:

1. Tell participants to keep their handouts from the Focus part of the lesson as reference for use during the slide presentation.
2. Distribute the *Introduction to Type II Diabetes Chart* to participants.
3. Share the following information with participants as you complete the slide presentation:

Slide 2: According to the American Diabetes Association, diabetes is a “problem with your body that causes blood glucose (sugar) levels to rise higher than normal.” There are three main types of diabetes. Type I is where the body does not make enough or any insulin to counteract the glucose. This type of diabetes is usually found in childhood or adolescence and requires supplemental insulin. Type II is the most common and similar to Type I. However, this type is found later in life when the body does not use insulin properly. This is also known as insulin resistant. Gestational diabetes happens during pregnancy when hormones make the mother’s insulin less effective.

Since Type II is the most common, the rest of the slide presentation will focus on this type.

Slide 3: There is a relationship between insulin and glucose in the body. When you eat sugar or glucose, it is either used or stored in the liver. To be used, insulin is needed to pull the glucose from

the blood stream into cells for energy. When the glucose levels are high, the insulin levels need to be high. However, if the glucose levels are too high or the levels are high for a long period of time, the pancreas cannot make enough insulin and Type II Diabetes occurs.

Slide 4: According to recent data gathered by the Centers for Disease Control, more than 30 million Americans have diabetes and 90% to 95% of them have Type II diabetes. Type II diabetes most often develops in people over age 45, but the rates in children, teens and young adults are increasing. There are also higher rates among African Americans, Hispanic/Latino Americans, American Indians and Alaska Natives although the reasons are unclear.

Slide 5: There are many risk factors associated with the development of Type II diabetes. Being overweight is a primary risk factor for Type II diabetes since the more fatty tissue there is in the body, the more resistant cells become to insulin. If the fatty tissue is primarily in your abdomen, the risk of Type II diabetes is greater than if the body stores fat elsewhere. Inactivity is a risk factor since it is related to weight gain. By increasing activity, the body uses glucose as energy and makes the cells more sensitive to insulin. The risk of Type II diabetes increases if a parent or sibling has Type II diabetes, there is a diagnosis of being prediabetic, or history of gestational diabetes. For women, having polycystic ovarian syndrome - a common condition characterized by irregular menstrual periods, excess hair growth and obesity - increases the risk of diabetes.

Slide 6: Diabetes can damage many major organs and lead to an increase risk of other diseases. It

causes a change in both the large and small blood vessels throughout the body. Complications are triggered by poor tissue perfusion which can lead to cell death. Although long-term complications of diabetes develop gradually, they can be disabling or even life-threatening. Let us take a close look at these complications.

Slide 7: Diabetic retinopathy is strongly related to the duration of diabetes and the level of glucose control. It is caused when blood leaks into the retina potentially leading to blurring and possible blindness. On examination, an eye doctor could see abnormal blood vessels, swelling or fatty deposit on the retina, scar tissue, or active bleeding.

Show or refer participants to model of eye

Diabetes also increases the risk of other serious vision conditions, such as cataracts and glaucoma.

Slide 8: Atherosclerosis occurs when the arteries harden and narrow over time due to plaque buildup. This increases the risk for coronary artery disease and stroke. The risk for stroke is two to four times higher in people with diabetes compared with those who do not have the disease. Diabetes also increases the likelihood of severe carotid atherosclerosis.

Show or refer participants to model of artery

Slide 9: According to the Centers for Disease Control, adults with diabetes are “two to three times more likely than people without diabetes to die of heart disease.” People with diabetes tend to have risk factors for cardiovascular disease as well such as high blood pressure, high cholesterol, high glucose levels and obesity. This puts them at risk for chest pain (angina), heart attack (myocardial infarction) and heart failure.

Show or refer participants to model of heart

Slide 10: In the kidney, there are millions of tiny blood vessels that filter waste. Chronic kidney disease is a change in the kidney that reduces kidney function and leads to kidney failure.

Diabetes is the leading cause because it damages the cells and blood vessels within the kidney’s filtering system. The renal arteries harden and eventually hardening of the kidneys occurs. The kidneys may shrink in size and have a pitted appearance. Finally, urine production ceases which would require dialysis or a kidney transplant.

Show or refer participants to model of the kidney

Slide 11: Diabetes causes damage to the nerves. Nerve damage in the feet, along with poor blood flow due to vascular changes, increases the risk of foot complications. Damage to sensory nerves results in loss of pain or sensation while damage to the motor nerves cause changes to the muscles in the foot. The combination can cause blisters, sores and pressure points. If left untreated, they can become serious infections, which may lead to gangrene and eventual amputation.

Show or refer participants to model of the foot

Slide 12: Complications can be prevented or treated early enough so that they do not progress. The American Diabetes Association recommends that people with diabetes get yearly comprehensive eye exams, yearly urine screening tests and yearly comprehensive foot exams by their health care provider. Blood pressures should be maintained below 140/90 mm Hg and patients should be educated on how to reduce saturated fats, trans fats and cholesterol intake. They also recommend increasing intake of omega-3 fatty acids, fiber and plant sterols to improve lipid profiles. Glucose levels should be managed (A1C <7%) and weight loss and/or increase in physical activity is also recommended.