

Diabetes Mellitus

Lecture 9

Diabetes mellitus: is a disease that prevents your body from properly using the energy from the food you eat. Diabetes occurs in one of the following situations:

- 1- The pancreas produces little insulin or no insulin at all. Insulin is a naturally occurring hormone, produced by the beta cells of the pancreas, which helps the body use sugar for energy.
- 2- The pancreas makes insulin, but the insulin made doesn't work as it should. This condition is called insulin resistance

Types of diabetes

Type 1 diabetes occurs because the insulin-producing cells of the pancreas (beta cells) are damaged. In Type 1 diabetes, the pancreas makes little or no insulin, so sugar can get into the body's cells for use as energy. People with Type 1 diabetes must use insulin injections to control their blood glucose. Type 1 is the most common form of diabetes in people who are under age 30, but it can occur at any age.

Type 2 diabetes (adult onset diabetes), the pancreas makes insulin, but it either doesn't produce enough, or the insulin doesn't work properly. Nine out of 10 people with diabetes have Type 2. This type occurs most often in people who are over 40 years old but can occur even in childhood if there are risk factors present. Type 2 diabetes may sometimes be controlled with a combination of diet, weight management and exercise.

Symptoms

The symptoms of diabetes include :

- Increased thirst.
- Increased hunger (especially after eating).
- Dry mouth.
- Frequent urination.
- Unexplained weight loss (even though you are eating and feel hungry)
- Weak, tired feeling.
- Dry and itchy skin
- urinary tract infections.

What causes type 1 diabetes

occurs when your immune system, the body's system for fighting infection, attacks and destroys the insulin-producing beta cells of the pancreas. Scientists think type 1 diabetes is caused by genes and environmental factors, such as viruses, that might trigger the disease. Studies such as are working to pinpoint causes of type 1 diabetes and possible ways to prevent or slow the disease.

What causes type 2 diabetes

the most common form of diabetes—is caused by several factors, including lifestyle factors and genes. type 2 diabetes if you are not physically active and are overweight or obese. Extra weight sometimes causes insulin resistance and is common in people with type 2 diabetes. The location of body fat also makes a difference. Extra belly fat is linked to insulin resistance, type 2 diabetes, and heart and blood vessel disease. To see if your weight puts you at risk for type 2 diabetes

Risk Factors

Type 1 Diabetes

is thought to be caused by an immune reaction (the body attacks itself by mistake). Risk factors for type 1 diabetes are not as clear as for pre diabetes and type 2 diabetes.

Known risk factors include:

Family history: Having a parent, brother, or sister with type 1 diabetes.

Age: You can get type 1 diabetes at any age, but it's more likely to develop when you're a child, teen, or young adult.

Type 2 Diabetes

You're at risk for developing type 2 diabetes if you:

- Are overweight
- Are 45 years or older
- Have a parent, brother, or sister with type 2 diabetes

- Have ever had gestational diabetes (diabetes during pregnancy) .

Treatment

Treat diabetes with a few different medications. Some of these drugs are taken by mouth, while others are available as injections.

Type 1 diabetes

Insulin is the main treatment for type 1 diabetes. It replaces the hormone your body isn't able to produce.

Type 2 diabetes

Diet and exercise can help some people manage type 2 diabetes. If lifestyle changes aren't enough to lower your blood sugar, you'll need to take medication.