Turning Point Services

Diabetes Mellitus

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What is Diabetes?

Diabetes mellitus: More commonly referred to as "diabetes" is a chronic disease associated with abnormally high levels of the sugar ‘glucose’ in the blood. Diabetes is due to one of two mechanisms:

Inadequate production of insulin (which is made by the pancreas and lowers blood glucose)

Inadequate sensitivity of cells to the action of insulin
What is Diabetes?

The two main types of diabetes correspond to these two mechanisms and are called insulin dependent (type 1) and non-insulin dependent (type 2) diabetes.

In type 1 diabetes there is no insulin or not enough of it.

In type 2 diabetes, there is generally enough insulin but the cells upon which it should act are not normally sensitive to its action.
Diabetes 101 Made Easy
Type 1 DM

Type 1 diabetics suffer from a complete lack of insulin in their bodies. Although the exact cause has not been identified, it is clear that the cells which make insulin are destroyed by the body’s own immune system. Usually the person with Type 1 DM has the condition all of their lives.
Type 1 DM

The classic initial symptoms of type 1 diabetes are:

- increased thirst
- increased urination
- weight loss
- hunger due to starvation of cells
- fatigue
Type 1 DM

As blood glucose levels increase, the body tries to remove excess glucose in the urine and dilute the blood by increasing water intake. However, many patients are initially diagnosed when they come to the hospital very sick in a state called diabetic ketoacidosis. This occurs when cells use alternative energy producing mechanisms, leading to high levels of byproducts called ketoacids. Diabetic ketoacidosis causes abdominal pain, nausea/vomiting, and drowsiness and is a potentially life threatening condition.
Type 2 DM

People with type 2 diabetes can still make insulin, but their cells have some degree of insulin resistance.

Type 2 diabetes is a continuum which begins with insulin resistance and can end in loss of insulin secretion.

When cells initially become resistant to insulin, the body increases the amount of insulin made to counteract this effect and keep glucose levels in a normal range.

Early type 2 diabetics have higher levels of insulin in their body than non-diabetics.
Type 2 DM

The symptoms of type 2 DM are similar to type 1, but generally occur later in life and have a more gradual onset. 40% of patients have no symptoms. The other 60% can present with:

- increased thirst and urination
- diabetic ketoacidosis
- a condition called hyperosmolar hyperglycemic state, a state of severe dehydration requiring hospitalization.
** HYPOGLYCEMIA  
(Low Blood Glucose)  

** Causes:** Too little food, too much insulin or diabetes medicine, or extra activity.  
** Onset:** Sudden, may progress to insulin shock.  

** SYMPTOMS:**  
- Shaking  
- Fast Heartbeat  
- Sweating  
- Dizziness  
- Anxious  
- Hunger  
- Impaired Vision  
- Weakness Fatigue  
- Headache  
- Irritable  

** WHAT CAN YOU DO?**  
Drink 1/2 glass of juice or regular soft drink, or 1 glass of milk, or eat some soft candies (not chocolate).  
Within 20 minutes after treatment test blood glucose. If symptoms don’t stop, call your doctor.  
Then, eat a light snack (1/2 peanut butter or meat sandwich and 1/2 glass of milk).  

** HYPERGLYCEMIA  
(High Blood Glucose)  

** Causes:** Too much food, too little insulin or diabetes pills, illness, or stress.  
** Onset:** Often starts slowly. May lead to a medical emergency if not treated.  

** SYMPTOMS:**  
- Extreme Thirst  
- Need to Urinate Often  
- Dry Skin  
- Hungry  
- Blurry Vision  
- Drowsy  
- Slow-Healing Wounds  

** WHAT CAN YOU DO?**  
Check blood glucose. Call your healthcare provider.  

Call your healthcare provider if your blood glucose levels are higher than normal for 3 days and you don’t know why.
Complications of Diabetes

Poorly controlled diabetes can cause:

- Retinopathy (damage to the retina in the eyes, leading to blindness)
- Nephropathy (damage to the kidneys resulting in kidney failure)
- Neuropathy (damage to your nerves, which can cause numbness or tingling)
- Gastroparesis (dysfunction of your digestive system causing chronic vomiting and abdominal pain)
More Complications of Diabetes

Many of the other major complications of diabetes are caused by damaging the large vessels in the body. This results in complications such as:

- coronary artery disease
- cardiovascular disease
- peripheral vascular disease
- cerebrovascular disease
Treatment

Type I - The only effective treatment in type 1 diabetes is administering insulin as these patients no longer produce it.

Type II - Lifestyle modification: a healthy diet with exercise to help lose weight. If this fails, the first medication used is typically Metformin.
WE HOPE YOU HAVE FOUND THIS DIABETES TRAINING INFORMATIVE. IF YOU HAVE ANY QUESTION PLEASE ASK YOUR IMMEDIATE SUPERVISOR. PLEASE PROCEED TO THE TURNING POINT TRAINING PAGE TO COMPLETE THE TEST ASSOCIATED WITH THIS TRAINING. THE LINK CAN BE FOUND AT:

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