

DIABETES AND DIVERSE AUDIENCES

Overview of Diabetes

Diabetes is a disease in which the body does not produce insulin or cannot adequately use the insulin it has. Insulin is needed by the body to convert sugar, starches and other foods into energy needed for daily activities. We still do not know what causes diabetes, but genetics and environmental factors such as being overweight and physically inactive seem to play roles.

About 18.2 million people in the United States, or 6.3% of the population, have diabetes. Further, about 5.2 million people are unaware that they have the disease.

Your doctor can test for diabetes by conducting a Fasting Plasma Glucose Test (FPG). A fasting blood glucose level between 100-125 mg/dl signals pre-diabetes. A person with a level of 126 mg/dl or higher has diabetes and should be treated.



Diabetes can cause serious health complications including heart disease, blindness, kidney failure, and amputations. **Diabetes is the sixth leading cause of death in the United States.**

Signs and symptoms of diabetes

People who think they might have diabetes should go to their doctor for diagnosis and treatment. Symptoms include:

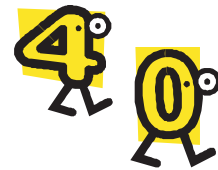
- Frequent urination
- Excessive thirst
- Weight loss or gain
- Extreme hunger
- Blurred vision
- Tingling or numbness in hands or feet
- Feeling very tired
- Very dry skin
- Slow healing sores
- Frequent infections
- Red, swollen, tender gums



Risk factors

Researchers do not understand why some people get diabetes, but know that certain factors increase your risk. Factors include:

- Family history
- Being overweight
- Being inactive
- Age-older than 40
- Race-Blacks, Hispanics and American Indians have double the rate as Whites.



Major types of diabetes

TYPE I DIABETES results from the body's failure to produce insulin (the hormone that "unlocks" the body's cells) allowing sugar to enter and provide energy. About 5% to 10% of Americans have Type I diabetes.

TYPE II DIABETES results from insulin resistance or inability of the body to use the insulin it has combined with an insulin deficiency. Most Americans diagnosed with diabetes have Type II diabetes.

GESTATIONAL DIABETES develops in about 4% of all pregnant women and usually disappears when the pregnancy is over. Women who have had gestational diabetes are at an increased risk for developing Type II diabetes later in life.



Other types of diabetes may result from genetic syndromes, drugs, malnutrition, infections or other illnesses.

What is the treatment for Diabetes?

Diabetes treatment is aimed at keeping blood glucose near normal levels at all times. Training in self-management is important to control Diabetes. Treatment must be individualized and must address medical, family, emotional and lifestyle issues. Talk with your doctor about the latest treatments.

Treatment of Type I & Type II Diabetes

Lack of insulin production by the pancreas makes type I diabetes difficult to control. However, for both types of diabetes, treatment requires a strict regimen that typically includes carefully planned diet and physical activity, home blood glucose testing several times a day, and multiple daily insulin injections.

GOOD DIET

When we eat, our body changes food into glucose and our blood glucose levels go up. Diabetics can deal with this rise in two ways: taking insulin shots before meals, and eating a healthy diet.



Once, it was thought that people with diabetes should eat a limited diet that did not include any sugar. Today, one has many choices. The best diet for a person with diabetes is actually an optimal diet for anyone. This diet:

- Is low in fat,
- Has only moderate amounts of protein, and
- Is high in complex carbohydrates, like those in beans, vegetables and whole grains (such as those found in bread, cereals, noodles, and rice).

The diet for diabetes does need one special thing—"consistency". It's best to:

- Eat about the same number of calories each day,
- Plan your meals and snacks for the same times each day, and
- Never skip meals.

EXERCISE

Being active helps the body's cells take in blood sugar and plays a major role in the treatment plan for diabetes. If you do not exercise, you should become more physically active. It is ideal to be active on most days of the week for a total of 30 minutes each day. These 30 minutes can be broken down into short sessions. If you are not used to exercising, start slowly. Even a 5-minute walk can get you moving. Consult with a doctor before starting any exercise program.



WEIGHT LOSS

Losing weight is another big part of diabetes treatment, especially for Type II diabetes. It can help the body use insulin better. The best way to lose weight is to exercise and follow a healthy meal plan that includes portion control. With a healthy meal plan of lower calorie, nutrient dense foods, you eat fewer calories because you fill up on low-fat, high-fiber foods and not on high-sugar, high-fat foods. You should decide with your health care provider how much you should lose. Sometimes, just 10 to 20 pounds is enough to bring diabetes under control.



DIABETIC PILLS

Sometimes healthful habits like eating well, losing weight and exercising are not enough. In that case, your doctor may have you take diabetic pills or insulin shots. Your doctor will have you try the pills first, but sometimes pills do not work. When this happens, your doctor may have you take both pills and insulin shots or maybe just insulin alone.



INSULIN SHOTS

With Type I diabetes, your cells no longer make insulin, but your body still needs insulin. With Type II diabetes, your body may also no longer make insulin or not be able to use it properly. In either case, insulin shots replace the insulin you no longer make. Insulin shots let your cells take in glucose. This helps improve your blood sugar and alleviate symptoms like tiredness, hunger and thirst.



Can diabetes be prevented?

A number of studies have shown that regular physical activity can significantly reduce the risk of developing Type II diabetes. It also appears that Type II diabetes is associated with obesity. Researchers are making progress in identifying the exact genetics and "triggers" that affect the development of Type I diabetes. However, for Type I and Type II diabetes, total prevention, as well as a cure, remains undiscovered.

References

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This information has been reviewed by university faculty.

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