

DIABETES

What is Diabetes?

- Diabetes is a disease in which the body does not produce insulin or does not properly use insulin.
- Insulin is a hormone that is needed to convert sugar, starches and other food into energy needed for daily activities.
- Genetics and environmental factors such as obesity and lack of exercise play a role in the cause of diabetes.

Major Types of Diabetes

- Type I Diabetes: an autoimmune disorder often referred to “juvenile diabetes”
- Pre-Diabetes: a condition where blood glucose levels are higher than normal but not high enough for a diagnosis of Type 2 Diabetes.
- Type 2 Diabetes: Most Americans who are diagnosed with diabetes have this type. A condition in which the body does not produce or utilize insulin properly.
- Gestational Diabetes: 4% of all pregnant women will develop this complication

Risk Factors for Pre-Diabetes and Type 2 Diabetes

- Overweight or obese
- Physically inactive
- High Blood Pressure
- High Cholesterol
- Have a parent or sibling with diabetes
- African American, Native American, Hispanic American, Asian American or Pacific Islander
- Have had a baby weighing more than 9 pounds or have had gestational diabetes

Prevention

- Diabetes doesn't go away once you have it, so it's better to prevent it in the first place
- Healthy eating habits: cut down on fat and calories, cut back on serving portion sizes, eat more vegetables and whole grain foods, drink water instead of soft drinks or juice
- **Increasing physical activity: 20-60 minutes per day/3-7 days a week aerobic activity, strength training, flexibility exercises**
- Losing weight: according to research average of 15 pounds
- There are no medications to prevent diabetes

Diagnostic Tests

- **2 different blood tests are used to diagnose diabetes**
 - **Fasting Plasma Glucose test (FPG)**
 - **Oral Glucose Tolerance test (OGD)**
- **Consult your doctor if you think you may need to be tested for diabetes**

Complications/ Why is Diabetes so dangerous?

- **Heart Disease and Stroke**
 - Heart disease is the leading cause of death for people with diabetes
 - Heart disease and stroke account for 65% of deaths in people with diabetes
 - Adults with diabetes have heart disease death rates 2-4 times higher than adults without diabetes
 - Stroke risk is 2-4 times higher in people with diabetes
 - Approx 73% of adults with diabetes have high blood pressure (130/80 or higher) or use prescription medications for hypertension
- **Blindness**
 - Diabetes is the leading cause of blindness in adults age 20-74 yr
- **Kidney Disease**
 - Diabetes is the leading cause of kidney disease
 - Kidney disease may require chronic dialysis or a kidney transplant
- **Nerve Damage**
 - Impaired sensation in the feet and hands
 - Slowed digestion
 - Carpal tunnel syndrome
 - Severe nerve disease in the legs is a major cause of amputations
 - Nerve damage can affect the central, peripheral, and/or autonomic nervous system
- **Amputations**
 - 60% of non-traumatic lower-limb amputations occur in people with diabetes
- **Dental disease**
 - Adults with diabetes have 2x the risk for gum disease than adults without diabetes
- **Complications of pregnancy**
 - Birth defects
 - Miscarriages
- **Coma/Seizures**

TYPE 2 DIABETES

What is Type 2 Diabetes?

- Insulin, a hormone made by your pancreas, helps get the glucose from the blood into the cells to be used for energy
- Insulin is a hormone that is needed to convert sugar, starches and other food into energy needed for daily activities.
- In people with Type 2 Diabetes, the pancreas doesn't make enough insulin AND/OR the insulin doesn't work very well
- Without insulin your blood glucose level rises

How can Type 2 Diabetes affect me?

- See list of complications above
- Heart Disease
- Stroke
- Nerve Damage
- Kidney Disease
- Vision difficulties/Blindness

How is Type 2 Diabetes managed?

- Most of the day-to-day care of diabetes is up to you, the individual:
 - You decide what, how much and when to eat
 - You decide how much physical activity to include in your daily routine
 - You decide to take appropriate medications as prescribed by your physician to manage your blood glucose/sugar levels, blood pressure levels and cholesterol levels.
- Quit smoking
- Maintain a healthy weight/lose weight
- See your physician regularly
 - Check your blood pressure
 - Check your cholesterol
 - Check your Microalbumin levels through a urine test to check kidney function
- **Have regular foot exams, and perform daily foot care**
 - **Check your feet every day**
 - **Use a mirror or have a family member help you see between your toes and the bottoms of your feet**
 - **Look for blisters, redness, and cracked skin**
 - **Wash feet using lukewarm water and mild soap**
 - **Dry feet completely, especially between your toes**
 - **Do not walk barefoot**
 - **Check your shoes every day for irritants and be sure they are completely dry**
 - **Make sure your shoes are the right size and width**
 - **Consult your doctor if you find a wound on your foot (O'Sullivan)**

- Have regular eye exams
- Get a flu shot and pneumonia vaccine yearly
- Seek out nutrition counseling

Blood Glucose

- Keeping the blood glucose/sugar level in the recommended range can prevent or delay the long-term health problems caused by diabetes.
- Check your blood glucose levels regularly
- A1C: The A1C test measures your average blood glucose control for the past 2 to 3 months.
- What can make blood glucose levels rise?
 - A meal or snack with a larger portion size than usual
 - A meal or snack with more carbohydrates than usual
 - Inactivity
 - Not enough diabetes medication
 - Side effects of other medications
 - Infection or illness
 - Stress
 - Changes in hormone levels
- What can make blood glucose levels fall?
 - A meal or snack with a smaller portion size than usual
 - A meal or snack with fewer carbohydrates than usual
 - Drinking alcoholic beverages
 - Missing a meal or snack
 - Extra activity
 - Too much diabetes medication
 - Side effects of other medications

Medications

- Oral Medications may be needed to control
 - Blood glucose levels
 - Blood pressure
 - Cholesterol
- Insulin may also be needed to control blood glucose levels

Meal Planning

- Consult with a nutritionist or dietician
- Portion size is just as important as what you eat
- Count carbohydrates
 - Carbohydrates raise your blood glucose levels the most
 - Carbohydrates include bread, biscuits, rice, crackers, cereal, fruit, juice, milk, yogurt, potatoes, corn, peas and sweets
 - Keep the amount of carbohydrate in your meals and snacks consistent

- Choose foods low in saturated fat
 - Helps to lower cholesterol
 - Foods high in saturated fat include meats, butter, whole milk, cream, cheese, lard, shortening, and many baked goods
- Increase fiber in your diet
 - High fiber foods include fruits, vegetables, dried beans and peas, oatmeal, whole grain breads and cereals
- Limit alcohol consumption
- Increase consumption of water

Physical Activity

- Regular physical activity helps lower your blood glucose, blood pressure and cholesterol levels
- Lowers the risk for heart disease and stroke
- Relieves stress
- Helps insulin work better
- Strengthens your heart, muscles and bones
- Be active throughout the day
- Consult with a medical professional such as your physician, physical or occupational therapist before starting a new exercise routine
- Aerobic exercise
 - 20-60 cumulative minutes per day 3-7 days a week
 - Includes walking, dancing, swimming, riding a bicycle
- Strength training: lifting light weights several times a week
- Flexibility exercises: stretching both arms and legs

What is Diabetes?

- Diabetes is a disease in which the body does not produce insulin or does not properly use insulin.
- Insulin is a hormone that is needed to convert sugar, starches and other food into energy needed for activities.

How can Type 2 Diabetes affect me?

- Heart Disease
- Stroke
- Nerve Damage
- Kidney Disease
- Vision difficulties/Blindness

How is Type 2 Diabetes managed?

- Most of the day-to-day care of diabetes is up to you
 - You decide what, how much and when to eat
 - You decide how much physical activity to include in your daily routine
 - You decide to take appropriate medications as prescribed by your physician to manage your blood glucose/sugar levels, blood pressure levels and cholesterol levels.
- Healthy eating habits: cut down on fat and calories, cut back on serving portion sizes, eat more vegetables and whole grain foods, drink water instead of soft drinks or juice
- Increase physical activity: 20-60 minutes per day/3-7 days a week aerobic activity, strength training, flexibility exercises
- Quit smoking
- Maintain a healthy weight/lose weight
- See your physician regularly
 - Check your blood pressure
 - Check your cholesterol
 - Check your Microalbumin levels through a urine test to check kidney function
- Have regular foot exams
- Have regular eye exams
- Get a flu shot and pneumonia vaccine yearly