

Diabetes



Objectives

- Students should be able to identify the difference between diabetes type 1 and type 2
- Students should be able to list ways to prevent type 2 diabetes
- Students should be able to identify some risk factors of diabetes
- Students should be able to identify ways to treat diabetes
- Students should be able to identify some complications of diabetes

Definition

- **Diabetes is a disease in which the body does not produce or properly use insulin**
- **Insulin is a hormone that is needed to convert sugar, starches and other food into energy needed for daily life.**
- **Type 1 diabetes is a disease in which the body does not produce insulin or not enough**
- **In type 2 diabetes the body does not produce enough insulin or the cells ignore the insulin**



Cause

- **The cause of diabetes continues to be a mystery**
- **Both genetics and environmental factors (obesity and lack of exercise) play roles**



Risk Factors

- **Family history of diabetes**
- **Low activity level**
- **Poor diet**
- **Excess body weight**
- **Age over 45 years**
- **High blood pressure**
- **High levels of triglycerides**
- **Impaired glucose tolerance**



Risk Groups

- **Diabetes during pregnancy or baby weighing more than 9 pounds**
- **Certain ethnicities: African Americans, Hispanic Americans, and Native Americans**



Treatment

- **If you are overweight or obese lose weight**
- **Make changes to your diet**
- **Eat high fiber, low saturated fat, little concentrated sweets**
- **Eat the same number of calories around the same time of day everyday**
- **Limit alcohol use and smoking.**
- **Exercise at least twenty minutes a day.**



Treatment continued

- **Insulin injections help the body metabolize sugars taken in**
- **Damage to the kidneys might require a kidney transplant**
- **Hyperglycemia:**
- **Exercise**
- **Hypoglycemia: Half cup of fruit juice or 5-6 pieces of hard candy**



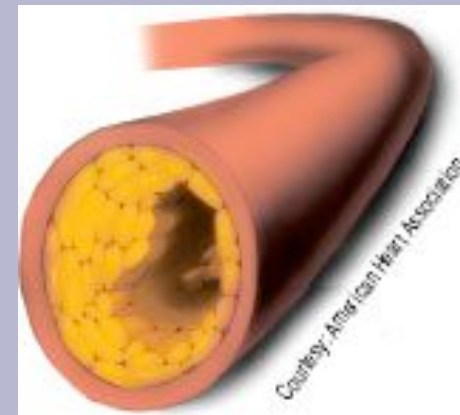
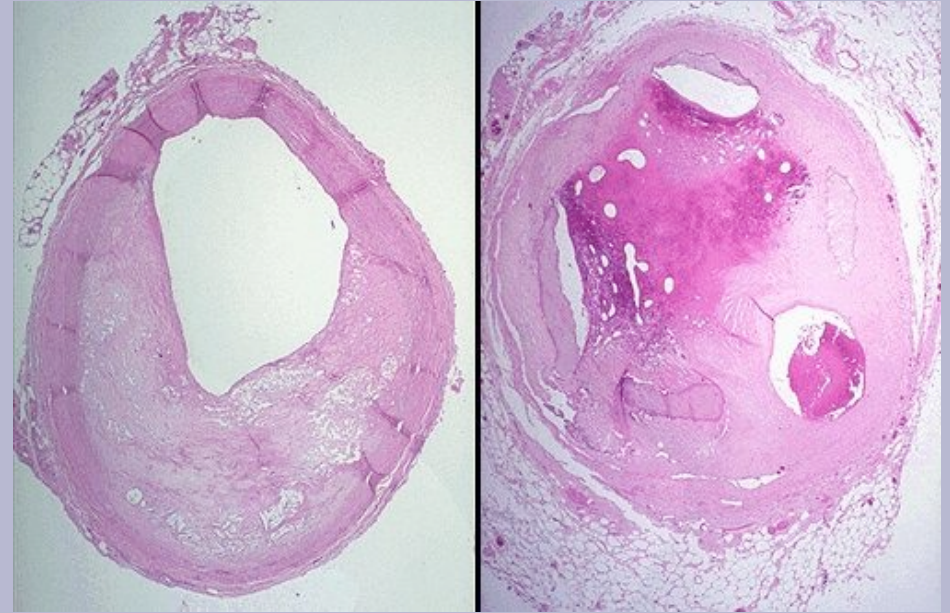
Prevention

- **Eat non starchy fruit and vegetables**
- **Eat whole grain foods**
- **Include beans in your diet**
- **Eat fish 2-3 times week**
- **Only eat lean meats**
- **Eat/drink non fat dairy products**
- **Drink only water and calorie free drinks**
- **Use liquid oils to cook**
- **Cut back on high calorie snack foods**
- **Portion your food. Finally, you need to exercise.**



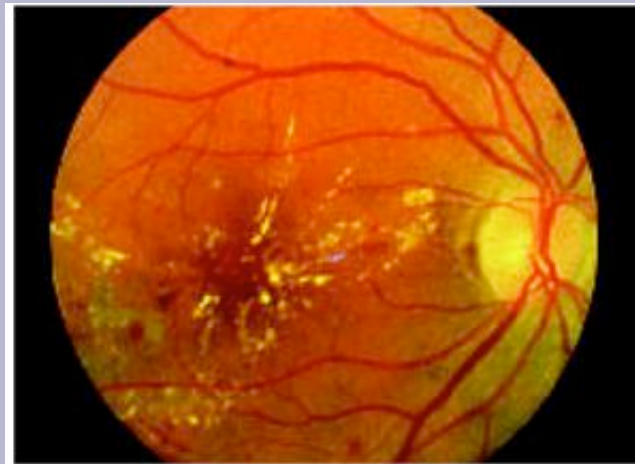
Heart and blood vessel disease

- 3 of 4 deaths caused by heart and blood vessel diseases
- Increased risk of having a heart attack
- At risk for atherosclerosis



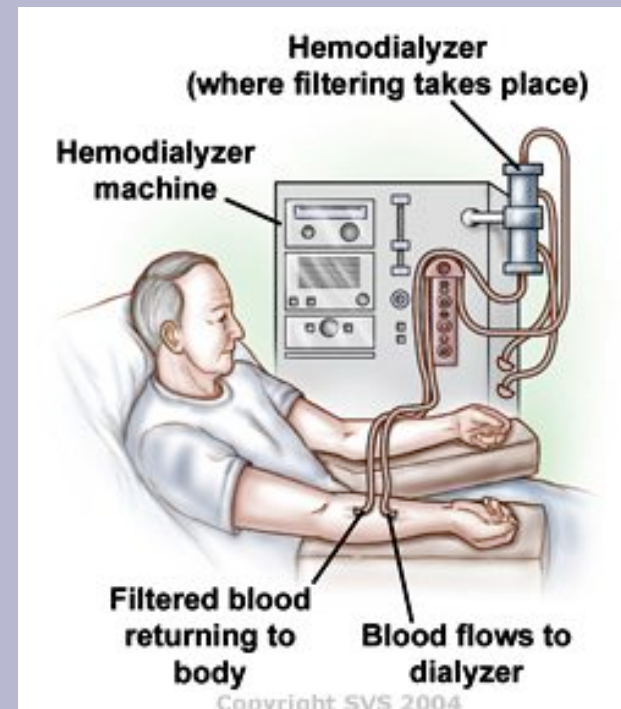
Blindness

- **High blood sugar levels damage blood vessels in the retina**
- **In nonproliferative diabetic retinopathy (NPDR) blood vessels might leak fluids**
- **In advanced or proliferative diabetic retinopathy (PDR), abnormal new blood vessels grow on the surface of the retina.**
 - **Might cause retina to deattach**



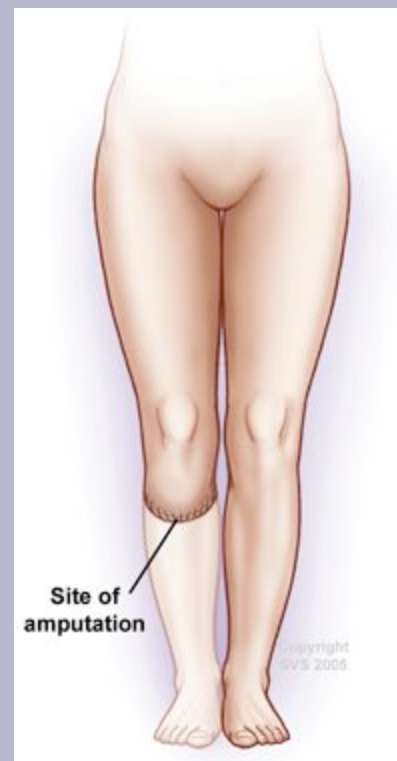
Kidney failure

- **High blood sugar levels damage kidneys**
- **Waste products and fluids build up in the blood**



Foot ulcers

- **Numbness from nerve damage in feet and legs**
- **Ulcers in the foot can become infected**
- **Not easily treated**
- **Frequent cause of amputation in diabetics**



Statistics

- **There are 20.8 million children and adults in the United States, or 7% of the population, who have diabetes. While an estimated 14.6 million have been diagnosed with diabetes, unfortunately, 6.2 million people (or nearly one-third) are unaware that they have the disease**
- **1 in every 400 – 600 children has type 1 diabetes**
- **2 million overweight children between the ages of 12-19 have diabetes**
- **10.5 % of all men age 20 and over have diabetes and a third of them don't know it**
- **8.8% of all women over 20 have diabetes and a third don't know it**
- **Hispanic/Latino Americans are 1.7 times as likely to have diabetes**



Review

1. Diabetes _____ is when the diabetic must receive insulin injections.
2. To prevent Diabetes you should not exercise T F
3. Blindness is a complication of Diabetes that is left untreated. T F
4. The cause of Diabetes is a well known fact. T F
5. Diabetics should eat healthy and exercise to control their blood sugar. T F