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 enough insulin.
- Type 2 diabetes is a disease in which the body does not produce enough insulin or the cells ignore the insulin.
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 startchy 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 detach
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
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
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