



# QUESTIONS QUESTIONS & ANSWERS ANSWERS

## WHAT IS DIABETES?

---

Diabetes is a disorder in which the level of sugar (glucose) in the blood is too high. The body's cells use sugar from the blood to make energy for the body. Insulin is needed to move the sugar from the blood into the cells. It is like a 'key' that opens the door to the cells. If there is a problem with insulin, sugar builds up in the blood. This is diabetes. There are two main types of diabetes.

### Type 1 Diabetes

Type 1 diabetes occurs when the pancreas, a gland in the body, cannot make insulin.

The cells in the pancreas that make insulin are damaged or destroyed. There is no 'key' to let the sugar into the cells. Type 1 is seen most often in people under age 30. However, it can occur at any age. Almost all children with diabetes have Type 1.

Persons with type 1 diabetes **need insulin shots daily**. Diet and exercise are also needed to keep blood sugar at a safe level.

### Type 2 Diabetes

There are two causes of Type 2 diabetes. In some cases insulin is made, but not enough to meet the body's needs. In other cases, for some reason, insulin is not able to open the cells. The sugar stays in the blood.

Persons with type 2 diabetes may be able to control their diabetes with diet and exercise. Some may need diabetes pills along with diet and exercise. Some may also need insulin.

Type 2 diabetes is more common than Type 1. It can occur at any age but is seen mostly in adults

### **Signs (symptoms) of Diabetes**

- urinating (peeing) often
- very thirsty
- very tired
- losing weight
- eating more, still losing weight
- vomiting
- stomach pain
- can't see clearly
- impotence in men
- hunger
- numb, painful, tingly feet
- sores that do not heal
- fast, shallow breathing

Both types of diabetes have these same signs (symptoms). They may start suddenly. Or they may come on slowly. Not everyone has all these symptoms. Some people with Type2 diabetes have no signs at first.

### **Who is at risk for diabetes?**

People are at risk if they :

- have other family members with diabetes
- are overweight
- are inactive
- are over age 45
- are African American, Native American, or Latino
- had diabetes when pregnant

### **Daily care of Diabetes**

Keeping track of your blood sugar levels helps you control your blood sugar. The American Diabetes Association has set **normal** ranges for blood sugar levels. They are:

**In the morning, before insulin, pills or food: 80-120 mg/dl**

**Before lunch and supper, (or dinner): 80-160 mg/dl**

**Before bed: 100-140 mg/dl**

**Two hours after a meal: 150 mg/dl or below**

### **Taking Diabetes Medications**

Take whatever medication you are using **at the same time every day**. Keep in mind that insulin is the ‘key’ that opens cells and lets sugar in. That is why it lowers blood. sugar. There are different kinds of insulin. You take them in different ways.

Rapid acting insulin : eat right away after taking it.

Short acting insulin: eat in 30 minutes.

Intermediate acting insulin: eat within an hour after taking it.

Diabetes pills:

- Some are taken when you have no food in your stomach.
- Some are taken with food.
- You have to eat within 30 minutes after taking some.

Make sure you know which kind of pill you are taking. Ask your doctor or pharmacist if you are not sure how to take diabetes pills.

Be sure to eat every 3-4 hours no matter which kind of medication you are taking. Do not skip meals. Do not put off eating a meal. Eat a snack at bedtime.

**Do not let yourself run out of insulin, pills or other diabetes needs. Call your doctor and get what you need before you run out.**

## Daily Foot Care

- Wash your feet every day. Use warm water and mild soap. **Do not soak them.**
- Dry feet and between toes very well.
- Check your feet every day. Look for scratches, cracks, redness or dry skin. Use a mirror to see your feet better.
- Cut toenails straight across. File sharp edges. If nails are too thick to cut, get a foot doctor (podiatrist) to cut them.
- Wear comfortable shoes made of canvas or leather only.
- Wear clean socks every day.
- **Never go barefoot.**
- Wear hard soled slippers.
- Dust your feet with baby powder if they are sweaty.
- Use a non-greasy cream on the heels and soles of your feet. This will keep them soft so they don't crack.
- Do not put the cream between your toes.

## Low Blood Sugar

The usual problem with diabetes is high blood sugar levels. But blood sugar levels that are too low can happen, too. This can be very serious. Low blood sugar is a level of **70 mg/dl or below**. **Signs (symptoms) of low blood sugar are:**

- feeling shaky and sweaty
- hungry
- dizzy and weak
- sleepy
- can't see clearly
- unsteady on the feet
- headache
- can't speak clearly
- numbness or tingling

## Causes of Low Blood Sugar

- skipping or delaying meals
- too much exercise
- exercise without eating
- too much diabetes medication
- too much alcohol
- losing a lot of weight

## **How to Treat Low Blood Sugar**

1. Test your blood sugar if you can. If it is 70 mg/dl or below, take a fast acting sugar. If you can't test your sugar but have any of the symptoms, take one of the sugars below.

### **Eat or drink one of these:**

- ½ cup of regular pop (soda),  
**not diet**
- 4 sugar cubes
- 1 to 8 hard candies or jelly beans
- 1 tablespoon molasses or honey
- 1 cup of non-fat milk
- 2 tablespoons of raisins
- ½ cup of orange juice
- 3 to 4 glucose tablets (get these from a drug store)

2. Test your blood sugar again after 15 minutes if you can. Is it 70 mg/dl or below? Are you still having signs of low blood sugar? Take another dose of one of the sugars.

3. Test your blood sugar again after 15 minutes. Is it still low? Are you are still having signs of something wrong? Take one of the sugars again. Call your doctor. Go to the emergency room if you can't reach your doctor.

4. Any of these fast acting sugars should raise your blood sugar by 50 points in about 10 minutes. Keep taking one of the sugars every 15 minutes until your blood sugar is around 100. If it is time for a meal, eat. If your meal is over 30 minutes away, eat a snack. Then eat the meal.

5. Low blood sugar can happen fast. It will get worse if not treated. You could pass out.

## **Tests Needed if You Have Diabetes**

**HA1C:** This is a blood test. It shows control of sugar over 3 months. **You have this test every 3 months.** You may need it only twice a year if it shows good sugar control

**Eye exam:** This will show if the diabetes is damaging your eyes. You will need to see an eye doctor (ophthalmologist) for this test. **You need this test every year.**

**Foot exam:** You will do this every day. **Your doctor should do foot exam at every visit.**

**Lipid test:** This is a blood test. It checks for cholesterol and other fats in your blood. **You should have this test once a year.** You may need it more often if your cholesterol is high.

**Urine test:** This test looks for protein and other things in your urine (pee). It checks on the health of your kidneys. **You need this test yearly or more often if signs of kidney trouble.**

## **Eating With Diabetes**

Eating right is a big part of keeping control of your sugar.

1. Eat balanced meals every day. This means at most meals you eat:

- 1 serving of fruit
- 1 serving of vegetable
- 2-3 servings of starch
- 1-3 ounces of meat
- 1 serving of fat
- 0-1 servings milk or dairy product

2. **Do not skip meals.** It can cause low blood sugar. It can lead to eating too much at the

next meal. That can cause high blood sugar.

3. Eat foods high in fiber. This helps control blood sugar.
4. Cut back on starchy vegetables like corn and potatoes. Eat more green vegetables.
5. Eat less fat. Pick low fat meats. Pick red meats that have words like loin, round or chuck in their names. Chuck roast and sirloin are examples. Bake, broil, roast, grill or boil meats. Chicken, turkey and sea foods are low in fat.
6. Keep serving sizes small in the starch group. These are also called carbohydrates or carbs for short. This includes breads, pastas, fruits, milk, cheese and other dairy products.
7. Stay away from cookies, cakes and sweets of all kinds. This includes fruit juices and sodas that are not diet.
8. Do not put sugar or cream in your coffee or tea.

### **How Much is in a Serving?**

#### **Starch/breads**

- 1 slice of bread
- ½ cup starchy vegetable
- ½ cup pasta or rice
- ½ cup cooked cereal
- 1 medium potato
- ½ cup sweet potato
- 5-8 crackers
- 1 ounce corn chips

#### **Meats/protein**

- 1 ounce meat or fish, (a piece about the size of a deck of cards)
- 1 egg

### **Fruit**

- ½ cup juice
- ½ cup canned fruit
- 1 baseball size fresh fruit
- 1 cup cut up melon
- ¼ cup dried fruit

### **Fats**

- 1 teaspoon butter or margarine
- 1 teaspoon mayo
- 1 teaspoon oil

### **Milk/ Dairy**

- 1 cup low fat milk
- 1 cup low fat yogurt
- ??? low fat cottage cheese

### **Non-starchy vegetables**

- 1 cup if raw
- ½ cup if cooked
- ½ cup vegetable juice

### **Making a Meal Plan**

Your health care team can help you make a meal plan that works for you. You need to think about how many calories you eat. This chart and the serving sizes above will help you do this. Pick your calorie goal. Under your goal there is a list of the number of servings you can eat of each kind of food. Pick what foods you would eat each day to meet that goal.



## Your Daily Calories

	<u>1,200</u>	<u>1,500</u>	<u>1,800</u>	<u>2,000</u>	<u>2,500</u>
<u>Other</u>					
<u>Foods</u>	<b>** Number of servings to eat for this many calories**</b>				
Starches	5	7	8	9	11
Fruits	3	3	4	4	6
Milk and Dairy	2	2	3	4	6
Vegetables	1-2	1-2	3-4	2-3	5-6
Meats, fish and Eggs	4	4	6	6	8
Fats and Sweets	3	4	4	5	7

## **Exercise and Diabetes**

Exercise is important to diabetes control. Regular exercise helps lower blood sugar levels. It also helps take off weight and improves blood flow. **Note: If your blood sugar is very high, over 300, exercise may not be safe. Talk to your doctor about this.**

### Getting Started

- Try to exercise 20 to 45 minutes at least 3 days a week. Walking, jogging, biking, water exercise and swimming are the best.
- Take it easy at first. Work up to a level that seems best for you
- Warm up and stretch before you start. This gets your heart and muscles ready.
- Cool down after you exercise by doing your exercises slowly for a few minutes.

## Checking Blood Sugar Levels

- Check before you exercise. If your sugar is low, eat a snack before you exercise.  
Be sure to have one of the fast acting sugars with you. You may need to take something if your blood sugar goes down.
- One hour after eating is a good time to exercise. That's when your blood sugar is at a good level. Check your sugar level after you exercise.

## Shoes and Socks

- You can get shoes made for running or for walking. Get the right kind of shoes. Make sure they fit right. Get new ones when they begin to wear out.
- Always wear clean socks that fit well. Cotton socks are best.
- Check your feet for any red, warm spots or blisters after you exercise. Call your doctor if you see any problems.

Our doctors serve with a deep respect for all. Their goal is to give the best care and education whether or not a person can pay.

### **St. Vincent Charity Hospital**

2351 E. 22<sup>nd</sup> Street  
Cleveland, Ohio 44115  
216-861-6200  
TTY:Ohio Relay 1-800-750-0750

### **St. Luke's Health Care Center**

11201 Shaker Boulevard  
Cleveland, Ohio 44104  
216-721-6900

**Reading Health**, a program of Project:Learn assisted in the writing of this material under a grant from the Sisters of Charity Foundation. February 2008



**ST. VINCENT CHARITY  
MEDICAL CENTER**

*A Ministry of the Sisters of Charity Health System*