

## Diabetes Mellitus, Type 2, Adult

### What is it?

Diabetes mellitus is a disease in which the blood contains too much glucose. Glucose is a form of sugar. Over time, too much sugar in the blood damages blood vessels and organs. Heart disease and strokes can result. Vision, kidney, and other problems can also result. Careful treatment of diabetes can help prevent these problems.

To understand diabetes, you must understand how your body digests sugar. What follows is a brief explanation. We recommend that you read other materials and attend classes to learn more.

Sugar, water, and oxygen provide energy for the body. Your body can change almost any food you eat into sugar. Sugar from digested food moves into the bloodstream. The blood travels through the body. Normally, sugar moves out of the bloodstream into muscles, the brain, and other organs. It moves into any area of the body that needs energy.

Insulin is a hormone made in the pancreas. This is a gland near the stomach. Insulin allows sugar to move from the bloodstream into body tissues. Blood sugar levels go up after a meal. Normally, so does insulin, which signals your cells to take up the sugar from the blood. This brings the blood sugar level back down again. If your body does not have enough insulin or is not able to use insulin correctly, sugar stays in the blood. This leaves your muscles, brain, and other tissues without the energy to work well.

There are two types of diabetes. You have type 2 diabetes. Your blood sugar is high because your cells are not responding to insulin. (Type 1 diabetes occurs when the body stops making insulin altogether.)

Diabetes is more than just a problem with sugar. Your body also has trouble with fats and proteins. People with diabetes are at higher risk for having high blood pressure or high cholesterol too. These increase your risk of problems like heart attacks and strokes.

Over time, diabetes causes damage to small blood vessels. This in turn causes damage to the organs that depend on blood from these vessels. The most common organs and areas of the body affected by diabetes are the heart, brain, eyes, and kidneys. It also affects the nerves of the hands and feet.

### What is the cause?

Type 2 diabetes tends to run in families. Even if you inherit the tendency to have diabetes, you may not become diabetic. Being overweight or eating poorly can increase your risk for getting the disease. Not getting enough exercise can also increase your risk.

### What are the symptoms?

Type 2 diabetes usually develops slowly. Your symptoms may be so mild that you have not noticed them. We often find the problem during a routine medical examination. The most common signs are increased thirst and a need to urinate frequently. This may include getting out of bed often at night to urinate. Other less common symptoms include infections of the skin, gums, vagina, or bladder. You may have problems with blurred vision, fatigue, and dry or itchy skin. You may have had some weight loss.

### How is it treated?

The goal of treatment is to keep your blood sugar levels as close to normal as possible. You do this by eating correctly, losing weight, and getting the right kind of exercise. In some cases we may recommend medicines.

You can help keep your blood sugar levels even throughout the day by the way you eat. The foods you eat should have the correct balance of sugars, fats, and proteins. There is nothing strange about a diabetic diet. It is the healthy way we all should eat. We may send you to a dietitian to help you make changes in your diet.

If you are overweight, losing even 10-15 pounds can help control diabetes. There seems to be a link between fat and insulin. Insulin may not work as well in people who are overweight.

Exercise lowers blood sugar. When exercising, your muscles use more sugar. Exercise also helps you lose weight. It can help lower blood pressure and cholesterol too. There are medicines that can help reduce blood sugar. Sometimes type 2 is better controlled by using shots of insulin. High blood pressure can increase your risk for problems if you are diabetic. We will need to check your blood pressure often. If it is high, we may give you medicine to control that as well. We may treat you with medicines to lower cholesterol.

We suggest that you get regular eye exams and dental care. We may also suggest that you take special care of your feet. We may suggest regular foot exams to watch for signs of any problems with the feet. Your feet are at risk for serious infections. They are easy to injure. You may have less sensation in the feet. Therefore, you may not notice when you have an injury or sore on the feet. You may have less circulation in the feet, which slows healing.

### What can I expect?

There is no cure for diabetes yet. However, with the right treatment, you can lead a healthy active life. Proper treatment using diet, exercise, and medicine can delay or prevent eye and kidney problems.

Diabetes can seem complicated at first. There is so much to know and understand. Learn all you can about diabetes. We may recommend classes that will help. The more you know the better you will do at taking care of yourself.

It may be important for you to be able to monitor your own blood sugar. There is an easy test that you can do for yourself at home. We may have you test your urine as well. From time to time we will do a special blood test called a hemoglobin A1-C. This helps us know how well controlled your blood sugar level has been for the past few weeks.

It is natural to feel angry or depressed when you first learn you have diabetes. We can help you understand and work with these feelings.

### What to watch for.

There is danger that your blood sugar will become too high or too low. In the short term, too low blood sugar is more dangerous than a high blood sugar. Both of these conditions can be life-threatening. Learn to recognize that signs that they are happening. Make sure your family learns the signs too. Get immediate medical help if they happen. Call us anytime you are ill, especially if you are vomiting.

## Diabetes Mellitus, Type 2 Follow-Up, Adult

### Why do periodic exams?

In diabetes mellitus, the blood contains too much glucose. Glucose is a form of sugar. Insulin is a hormone normally produced by the body. It helps sugar move out of the blood into cells. There the sugar is used for energy. In type 2 diabetes, the cells do not get the sugar. Instead it stays in the blood. This happens because your body is resistant to insulin. Resistant means that your body does not respond as expected to the insulin.

Over time, high levels of glucose in the blood sugar damage blood vessels and nerves. This can result in heart disease, heart attacks, strokes, problems with vision, and kidney failure. It can also cause changes in feeling and bloodflow in hands or feet. Keeping your blood sugar levels within safe ranges gives you a better chance of preventing these problems. Our goal is to help you keep your blood sugar levels in the safe range as much as possible. We do regular exams so we can help you do this. We also do exams to look for any problems caused by your diabetes.

We want to help you learn about your diabetes. The more you know the better able you will be to keep your blood sugar levels in a safe range. Many problems can be avoided by following your diet, exercising, and taking any medicines as we tell you to.

You may have trouble with your diet or weight. You may have problems with your medicines. You may have questions about exercise. We can help you with all of these issues.

### What will be done during these exams?

We will do an exam to see how you are doing physically. We will check potential trouble spots, like your feet. The most important purpose of your visit is education. This is a time to ask questions about your health and how to best manage your diabetes.

Each time you check your blood sugar, write down the date, time, and what your blood sugar level was. Also write down when you take your medicine and how much you take.

Record any changes in your diet or activity. Bring this record and your blood glucose meter with you to every visit with us.

We will go over it with you and talk about any changes needed to keep your blood sugar levels in the safe range. Periodically we will do tests to see how well your diabetes is controlled. We may also examine you and do tests to discover if more serious problems are developing. From time to time we may refer you to other specialists. For example, all persons with diabetes should have their eyes examined once a year. It's also important that you get regular dental care and take care of your teeth and gums. We recommend regular foot exams, especially for older adults. Exams are also important for younger people who have had diabetes for many years.

### What to watch for.

There is danger if your blood sugar level becomes too high or too low. Both of these conditions can be life-threatening. Learn how to recognize the signs that they are happening so you can get medical help. Make sure your family knows the signs and what to do. Problems often occur when you are sick. Call us every time you get sick, even if the illness is minor. Call any time you vomit. Let us know if you have problems keeping your blood sugar level in a safe range. Let us know if you are not eating or drinking normally.

### What advice may we have?

Never run out of your diabetes medicine. Avoid skipping doses. Bring your diabetes medicine with you on trips. Avoid skipping meals and snacks.

Let us know whenever you see another health care provider for any reason. We want to work as a team with your other providers. This will help to make sure you get the best possible care. Talk to us before changing the amount of exercise you get. We may need to adjust your medicines. We usually recommend an annual influenza shot.

### Instructions:

#### Eat a low fat and low cholesterol diet.

##### Low fat foods include:

- fresh fruits
- fresh vegetables and salads (without butter, margarine or dressings)
- grains and breads (not muffins or pastries)
- pasta (without cream sauces)
- chicken and turkey (white meat)
- fish
- fat free milk (2% milk is high in fat)

##### High fat foods include:

- butter, margarine, mayonnaise and salad dressings
- red meats
- ice cream, cheeses and other whole milk dairy products
- peanut butter and other nuts

A gram of fat has twice the calories by weight than other foods.

### Precautions:

#### Call your Physician if:

**After using a fever reducing medication for 24 hours the temperature is still higher than 103.5 degrees Fahrenheit.**

**Your blood sugar is still over 300 after taking insulin.**

### Instructions:

**Brush your teeth 3 times a day and floss at least once a day.**

By brushing your teeth after meals and using dental floss once a day, you can prevent tooth decay. Tooth decay may cause you to lose your teeth, making it difficult to eat. It also causes bad breath and gum disease. Recent research shows that gum disease may be linked to heart disease, pneumonia, and high blood sugar levels. It may also increase the risk of preterm delivery in pregnant women. Spend several minutes brushing all surfaces of the teeth. Angle the bristles so they are half on tooth and half on the gums. Use a gentle circular motion to brush. Do not brush the gums too hard. Replace your toothbrush every 1 to 2 months.

Never share a toothbrush. A used toothbrush has many germs on it. Sharing it may spread infection. Floss your teeth every day. Flossing removes food caught between your teeth. Flossing completes the cleaning that begins with brushing. Brushing alone only cleans about three quarters of the tooth surface. Have your dentist show you how. Wash your hands before and after flossing. Your dentist may suggest that you use mouthwash every day. Look for a mouthwash that is approved by the American Dental Association for killing germs that can cause gum disease.

**Continue with your present treatment plan.**

**Cut your nails straight across.**

Cutting your toenails straight across will help prevent ingrown toenails and infections. Avoid following the shape of your toe. Do not cut the nail too short. Do not cut or trim the cuticle, and avoid pulling hangnails. This can lead to infections.

Do the following every day:

- Keep your feet clean and dry. Wash them every day with a mild soap. Dry carefully, especially between the toes. Use a soft towel and don't rub.
- Wear clean, soft stockings. Avoid elastic, stretch socks. Don't allow your socks to bunch up inside your shoe. Wear socks to bed if your feet get cold easily.
- Wear soft, comfortable shoes that fit you well. Do not wear shoes that are too tight or that rub your feet. Check the inside of shoes for rough spots. Change your shoes after 4-5 hours.
- Check the bath water with your hand before you put your feet in. Be sure it is not too hot.
- Treat dry skin with a lotion everywhere except between your toes.
- Cut your toenails straight across.

Some things to avoid:

- Do not treat ingrown toe nails, corns, or warts yourself. Let us help you or see a podiatrist.
- Don't wear sandals or thongs that put pressure on one part of the foot.
- Don't wear shoes without socks.
- Don't soak your feet in water.
- Don't use a heating pad or other heating devices on your feet.
- Never go barefoot.
- Do not sit with your legs crossed for long periods of time. This reduces blood flow to the feet. Avoid standing for long periods of time without moving.

**Eat a normal well-balanced diet.**

Follow the food pyramid for healthy eating. The food pyramid shows how many servings you should have from each food group each day. We recommend that you follow these guidelines for healthy eating.

	1600 cal	2200 cal	2800 cal
Servings			
Grains	6	7.5	11
Vegetables	4	4-5	5
Fruit	4	4-5	5
Dairy (low-fat)	2.5	3	3
Meat	1.5	2	2

Most women and some older men need about 1600 calories each day. Very young children may need less than this. However, they should get at least 2 servings of dairy every day.

Most children, teenage girls and active women need about 2200 calories each day. Men who are not very active need about the same. Women who are pregnant or breastfeeding may need more.

Teenage boys and active men need about 2800 calories each day. Very active women need about the same. Athletes may need more.

Starches give you energy. They also give you some vitamins and minerals. Starches include bread, pasta, cereal, rice and potatoes. A serving is 1 piece of bread or a half-cup of cooked pasta. A half-cup of cooked cereal, rice, or 1 cup of ready-to-eat cereal equals one serving. A spaghetti dinner usually equals about 3 servings.

Fruits and vegetables provide fiber. They also provide many vitamins and minerals. One serving is a medium-sized apple, peach, banana, or orange. One serving is 1/2 cup of chopped fruit or cooked vegetables. 1 cup of raw lettuce or other greens or 1 cup of juice equals 1 serving as well.

Dairy products include milk, cheese, and yogurt. They are good sources of protein and calcium. A serving is 1 cup of milk or yogurt and 1.5 ounces of cheese. Look for low-fat or non-fat versions.

Meat is a good source of protein. Meats include beef, pork, poultry, and seafood. A serving is 3 ounces. This translates to a piece about the size of a deck of cards. Non-meat sources of protein include dry beans, eggs, and nuts. A serving is 1/2 cup of cooked beans, 1 egg, 2 tablespoons of peanut butter, or 1/3 cup of nuts.

Eat only a little of sweets and fats. Drink alcohol in moderation.

Sweets like candy and desserts are high in calories. They don't usually give us much else. The same is true of alcoholic drinks. Make them a special treat, not a regular part of each meal. Fats are also high in calories. Your body needs some fat in the diet, but most people eat too much. Avoid saturated and hydrogenated fats as much as possible. These fats are found in meat, lard, eggs, dairy products, margarine, and shortening. Instead, use non-fat or low-fat dairy products. Trim skin and fat off meat. Choose olive, canola, soybean, safflower, corn, or sunflower oil for cooking.

**Follow a diabetic diet with 1500 calories.**

A diabetic diet is an ideal way to eat. Because diabetics do not digest foods normally, it is especially important to eat in a way that is not stressful to the body.

A diabetic diet is low in fat and sugars, and contains just the right amount of calories for your needs. It is important that eating be spread evenly throughout the day. It is better to have 5 to 6 small meals than 2 to 3 large ones.

**Have your eyes examined by an eye doctor every year.**

Good eye care is an important part of your overall treatment. Diabetes can lead to eye problems and even blindness. Seeing an eye doctor regularly helps prevent serious eye problems. It also helps us know if your diabetes needs to be better controlled.

**If you have symptoms of being hypoglycemic or your blood sugar is less than 60, you need to eat or drink a source of sugar.**

If you have any of these symptoms, drink fruit juice or soda that contains sugar or eat a food containing sugar:

- excessive hunger
- difficulty concentrating
- slowed thinking
- uncoordinated moving
- pounding heart
- nervousness
- sweating
- pale skin

Inspect your feet and legs daily. Watch for:

- Swollen or red areas (signs of possible infection)
- Cuts or breaks in the skin
- Cold or pale areas (sign of possible poor circulation)
- Very warm areas (sign of possible infection)
- A sore on your foot
- A red, tender toe

Call us if you see any of these problems.  
Early treatment of foot problems in diabetes is very important.

### **It is important to take good care of your feet by doing the following every day:**

- Do the following every day:
- Keep your feet clean and dry. Wash them every day with a mild soap. Dry carefully, especially between the toes. Use a soft towel and don't rub.
- Wear clean, soft stockings. Avoid elastic, stretch socks. Don't allow your socks to bunch up inside your shoe.
- Wear soft, comfortable shoes that fit you well. Do not wear shoes that are too tight or that rub your feet.
- Check the bath water with your hand before you put your feet in. Be sure it is not too hot.
- Treat dry skin with a lotion everywhere except between your toes.
- Cut your toenails straight across.
- Do not treat ingrown toe nails, corns, or warts yourself. Let us help you.
- Don't wear sandals.
- Don't wear shoes without socks.
- Don't soak your feet in water.
- Don't use a heating pad or other heating devices on your feet.
- Never go barefoot.

### **Start eating more fiber.**

High-fiber foods include whole grain breads, cereals, and rice. Fruits, vegetables, beans, and legumes are also high in fiber. Increase the fiber in your diet slowly to avoid side effects such as gas, abdominal bloating, and cramps. It is important to drink plenty of fluids when you eat a high-fiber diet. 6-8 glasses of water are generally recommended.

### **We have prescribed an insulin pump to treat your diabetes.**

The pump is a device that you can put on your belt or in a pocket. It looks somewhat like a pager. It contains a small supply of short-acting insulin. The pump injects insulin through a thin tube and small needle. This needle is inserted

under the skin. The needles can be left in one place for several days. The pump can be set to inject small continuous doses of short-acting insulin all day. These are called basal doses. The pump can also be set to give a larger insulin dose at specific times of the day. A larger dose is called a bolus. It is usually given before a meal. The pump is not automatic. You have to program it. This means that you tell it how and when to give you the right amount of insulin. It may take some time to figure out the right sequence of basal and bolus doses for you. We can help you figure this out. The owner's manual will give you instructions on the proper use and setup of your pump.

The pump allows you to maintain a more even level of insulin than you can get by giving yourself shots. This is easier on your body. It also improves your control of blood sugar levels. You may find that you actually use less insulin. Once the pump has been adjusted for your specific needs, you can be a bit more flexible about when and how much you eat. You can change doses as needed when you exercise or are ill. If the pump stops working correctly, blood sugar will rise quickly. This is because the pump uses only short-acting insulin. A sudden rise in blood sugar can lead to diabetic ketoacidosis. When something doesn't feel right, follow these steps:

- Check your blood sugar level first. If it is high, continue with the rest of the steps below. If it is low, follow your usual procedure for correcting low blood sugar.
- Check the pump to make sure there's insulin in the reservoir.
- Check the tubing to make sure there are no leaks, crimps, or large bubbles in the line.
- Check the injection site for signs of infection. Signs of infection include pain, swelling, redness, or thickened tissue around the site. An infection at the site can slow down absorption of insulin.
- Check the injection site for signs of a bruise around the needle. It may feel like a hard lump. This can slow down absorption of insulin.
- Review the bolus history screen. Did you give yourself a bolus before your last meal?

Call us or seek immediate medical help if you are unable to correct blood sugar that too high or too low. If possible, make any changes in the morning, not at night. This allows you to check your blood sugar levels during the day. You can quickly see if something is not right.

Carry the owner's manual with you. It can help you troubleshoot problems. It is a good idea to read the manual again and again until you become an expert at using the pump. You can also call the pump company for help at any time. The toll-free number is on the back of the pump and in the manual.

### **We recommend that you change your eating habits slowly.**

Making a lot of big changes all at once is usually a recipe for failure. You are more likely to keep a healthy habit if you make small changes that you can maintain. Here are some small steps you can make toward a healthier diet. Make just one or two changes a week. Remember, you are not going on a diet, you are permanently changing the way you eat.

Add one serving of vegetables at lunch and one at dinner. Add a piece of fruit as a snack. Use half the butter, margarine, or salad dressing you usually use.

Try low fat or non fat condiments, like non fat sour cream. Drink low-fat (1%) or skim milk with a meal instead of soda,



alcohol, or sugar-sweetened tea or coffee.

Meat contains a lot of fat. Most people eat much more meat than they need to. Here are some tips for eating a healthy amount of meat:

- Make meat just part of the meal, not the main dish. A serving of meat is three to four ounces-about the same size as a deck of cards.
- If you currently eat large portions of meat, cut back by half or by one-third at each meal.
- Include two or more vegetarian-style meals (meatless) every week. There are lots of good vegetarian cookbooks for sale that can give you ideas for meals.
- Include more vegetables, rice, pasta, and beans so that you need less meat to feel like you've had a full meal. Try casseroles, stews, pasta and stir-fry dishes.
- Buy less meat. If it's not there, you won't eat it.
- Snacks can be a problem if you're used to eating between meals. Most snacks tend to have a lot of sugar or fat. Here are some ideas for healthier snacks:
  - Fresh, whole fruits or canned fruits packed in their own juice.
  - Dried fruit (easy to leave in the car or carry in a briefcase or purse).
  - Unsalted pretzels or nuts mixed with raisins.
  - Graham crackers and other reduced fat crackers.
  - Gelatin.
  - Low fat and non fat regular and frozen yogurt.
  - Popcorn, plain with no added salt.
  - Raw vegetables.

Don't be hard on yourself if you slip up. Changing your lifestyle is a long-term process. Keep a record of what you eat. Congratulate yourself every day that you make or maintain a healthy change.

### **We recommend that you follow the "Mediterranean diet."**

The Mediterranean diet does not limit calories. Instead, it provides guidelines for what foods you should eat more of and what foods you should eat less of.

Every day:

- Eat several servings of plant foods. These include fruits and vegetables, potatoes, breads and whole grains, beans, nuts, and seeds. As much as you can, eat fresh rather than canned or frozen foods.
- Use olive oil for cooking and salad dressings. You can have up to 35% of your calories from fats, including olive and other vegetable oils. However, limit the amount you eat of saturated fats like butter, margarine, lard, and animal fat. They should add up to no more than 8 percent of your total calories. Include "partially hydrogenated" oils in your saturated fat limit.
- Every day, have a small amount of cheese and yogurt. Look for low-fat and non-fat types. Think of cheese as a condiment like salt or pepper, not a main dish. For example, you can sprinkle a little Parmesan cheese on pasta or put a little cheese in a salad. Cheese contains saturated fat. Mozzarella cheese is much lower in fat than most types of cheese.

- If alcohol is not a problem for you, have one (for women) or two (for men) glasses of red wine with dinner. If alcohol is not a good idea for you, try adding grape juice to your diet instead. It gives you the same heart-protecting benefits of wine without alcohol. It is very sweet, so you might use it for your "dessert."

Every week:

- Eat some fish and poultry. Do not eat chicken or turkey skin.
- Eat no more than 4 eggs a week, including eggs used in cooking. Egg yolks contain saturated fat.
- Eat no more than 2 or 3 sweets or desserts that contain lots of sugar or honey. Try fresh fruit or sweets made with fruit concentrate instead.

Every month:

- Eat no more than 12 to 16 ounces of red meat. Lean meat is preferable.

### **We want you to follow the Therapeutic Lifestyle Changes (TLC) diet.**

This way of eating can lower the levels of harmful fats in your blood. Lowering fats will help lower your risk for heart disease and other problems. The TLC diet does not tell you how many calories to eat. Instead, it helps you to eat the right proportion of foods.

Fats should make up 25 to 35% of your total calorie intake.

- Monounsaturated fats (MUFAs) can be used for up to 20% of total calories. MUFAs are sometimes called "good fats." They can actually help lower blood fat, especially LDL, the "bad" cholesterol. MUFAs include olive oil, canola oil, and peanut oil.
- Polyunsaturated fats (PUFAs) can be used for up to 10% of total calories. PUFAs are found in nuts and in fatty fish such as salmon and mackerel. They are also found in most vegetable oils including safflower, sunflower, and soybean. PUFAs may also lower LDLs.
- Saturated fats should be limited to less than 7% of total calories. Saturated fats are found in lard, animal fat, and eggs. They are found in milk and milk products such as butter, ice cream, and cheese. They are also found in palm and coconut oils. They raise LDL levels.
- Cholesterol is included in the saturated fats. Cholesterol is found only in animal products, such as meat, eggs, butter, and cheese. Eat less than 200 mg of cholesterol each day.
- Trans fatty acids are also included in the saturated fats. Another term for them is hydrogenated or partially hydrogenated oils. They are found in margarine, fried "fast food," and store-bought doughnuts, cookies, and crackers. Trans fats, like saturated fats, are usually solid at room temperature. For example, soybean oil becomes rich in trans fatty acids when it is made into solid margarine. Liquid or soft margarine usually has less trans fatty acids.
- Carbohydrates should make up 50 to 60% of your total calories. Carbohydrates are the starches and sugars.
- Complex carbohydrates are found in fruits, grains, and vegetables. This is also where you get fiber in your diet. You should get 20 to 30 grams of fiber every day. Fiber helps lower blood fat levels and has

other benefits as well. Most of your carbohydrates should come from this group.

- Carbohydrates also include anything made from grains, such as bread and pasta. Products made with whole-grain flour have more fiber than products made with white flour.
- Simple carbohydrates are also known as sugars. They include white and brown sugar, honey, and fruit juice. Alcoholic drinks have a lot of simple carbohydrates. Limit the amount of simple carbohydrates in your diet. They give you quick energy but not much else.
- Protein should make up about 15% of your total calories. Protein is found in meat and fish, dairy products, and eggs. Nuts and seeds also contain protein, as do some beans. Soybeans and soy products like tofu (bean curd) are a good source of protein. Fish, soybeans, peanut butter, and poultry are lower in saturated fat than red meat, cheese, and eggs.

**We want you to wear a glucose monitoring device for 3 days.**

This device will check your blood sugar levels every 5 minutes. It does this through a sensor inserted under the skin. The levels are recorded in the monitor. The monitor is attached to the sensor by a wire. You can put the monitor in a pocket or wear it on your belt. You will need to sleep with the wire attached. You will still need to do your usual blood sugar monitoring. You will also need to do your usual insulin dosing. We will have you return to the office at the end of this time. We will remove the sensor and transfer the record of blood sugar levels to a computer. We will compare this record with your own record of blood sugar levels and insulin injections. It will show us what your blood sugar is doing between your finger stick measurements. This will help us see how well your current treatment is controlling your blood sugar levels. We may adjust your treatment. We will only do this if your blood sugar levels are going too high or too low at certain times.

**Wear a medical alert bracelet or tag.**

This can alert medical personnel to your problem. It could save your life.

**Precautions:**

**Call Your Physician if:**

- There are signs that the blood sugar is too high (hyperglycemia).
- There are signs that the blood sugar is too low (hypoglycemia).
- You are having trouble following our instructions or treatment for any reason. Let us know if:
- You start vomiting.
- Your blood sugar is higher than 250.
- Your blood sugar is steadily becoming higher.

**Seek Immediate Medical Attention if:**

- You become dehydrated.
- You notice that breathing is rapid, more than 40 times a minute.
- Your blood sugar is higher than 400.