



You Can! Take the First Step

Diabetes Survival Skills





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Welcome

Your Wellstar care team will partner with you in every step of managing diabetes, and your providers will get to know you and help you come up with a personalized care plan. Wellstar Diabetes Services classes are also available to learn more about how to keep your diabetes under control.

Wellstar offers an outpatient program recognized by the American Diabetes Association. Our teaching staff of Certified Diabetes Care and Education Specialists includes registered nurses and registered dietitians.

It is our goal to give you the highest quality care. We look forward to seeing you in a class soon.

What you will learn

After reading this booklet, you should know:

- The main times when you should check your blood sugar
- Three signs of high and low blood sugar and how to care for each
- The kinds of foods you should eat
- The types of foods you should try to limit in your diet
- When to take your medication
- When to contact your provider
- Food and how it impacts your blood sugar

It is very important for you to:

- Start going to a primary care doctor
- Sign up for your outpatient diabetes education classes

Your Healthcare Team

Physician: _____

Drugstore (Pharmacy): _____

Wellstar Diabetes Educator: _____

To sign up for a class:

Call Wellstar Diabetes Services at **(770) 793-7828** or email us at diabetes.scheduler@wellstar.org.



Terms to Know

Diabetes

- Diabetes is a lifelong condition.
- You have too much sugar in your blood, and your body is not able to use food the right way.
- You do not have enough insulin and/or your body does not use insulin the right way.
- Diabetes affects almost every part of your body, and all types of diabetes are serious. When blood sugars are high for an extended period, it increases your risk for other medical problems related to your heart, kidneys, eyes and nerves.

Glucose

- Glucose is sugar.
- Sometimes blood glucose is called blood sugar. They both mean the same thing.
- Glucose comes from the food you eat and is your body's source of energy. It is your body's fuel. The liver also stores and releases glucose when you are not eating (between meals or while you are sleeping).

Insulin

- Insulin is a hormone made in the pancreas.
- It helps the body use sugar for energy. Insulin lowers blood sugar by moving sugar out of the bloodstream into the cells of the body.
- You cannot live without insulin. When your body cannot make enough insulin, you may need to take insulin shots or use an insulin pump. Insulin may be available to you in an inhaled form.



Types of Diabetes

Type 1 Diabetes

This was once called juvenile diabetes. In type 1 diabetes, the pancreas makes little or no insulin. People with type 1 diabetes must take insulin each day to live. In Type 1 diabetes the immune system destroys the pancreatic beta cells, which make insulin. When beta cells no longer work, you need an outside source of insulin to live.

Type 1.5 Latent Autoimmune Diabetes in Adults (LADA)

LADA is a slower-progressing type 1 diabetes. It is often diagnosed as type 2. LADA is most common in those over age 35.

Type 2 Diabetes

This was once called adult-onset diabetes. In type 2 diabetes, the pancreas still makes some insulin. The body may not be able to use or make enough insulin to keep blood sugars in a normal range. People with type 2 may be able to control diabetes with healthy eating and by staying active. They also may need to take medications.

Gestational Diabetes

A small number of women have gestational diabetes during pregnancy. This often can be treated with a healthy meal plan and by staying active. Some women may need insulin or pills. Blood sugar often returns to normal levels after the baby is born. Women who have had gestational diabetes are at higher risk for developing type 2 diabetes later in life.

Prediabetes

With prediabetes, blood sugar levels are higher than normal, but the levels are not high enough to be labeled diabetes. People with prediabetes are at increased risk for type 2 diabetes. With lifestyle changes, such as eating healthy foods and staying active, you may be able to bring your blood sugar level back to normal.

Managing Diabetes

Education

Wellstar offers group and one-on-one classes. Learning how to take care of your diabetes or pre-diabetes will help you feel better and prevent problems.

Meal Planning

The basics for healthy meal planning are learning how much, when and what to eat, and how it can impact your blood sugars.

Staying Active

Regular exercise helps your body use insulin better and improves your overall health. Check with your provider before starting or changing your exercise program.

Medicine

You may need to take pills, shots or both to control your diabetes.

Checking Your Sugar

Check your blood sugar regularly to help you know how your food, medicine and activity are affecting your diabetes. Food is not the only thing that may affect blood sugars; other things to consider include your stress, pain level, illness and even sleep quality.

Keeping Appointments

Keeping blood sugars under control helps prevent problems later on. Regular appointments will help detect any issues that may come up before they get serious.



Goals

Why Do I Check My Blood Sugar?

- Blood sugar can be too high or too low
- Uncontrolled blood sugar can lead to health problems
- Blood sugars help you and your provider decide whether medications need to be increased or decreased based on your changing lifestyle

Checking Your Blood Sugar

Keep a logbook of your blood sugar to take to your doctor's office.

Target

- 80–130 before a meal
- Below 180 two hours after the first bite of a meal



When To Test

- Fasting (before breakfast)
- Two hours after the first bite of a meal
- Before meals
- Bedtime
- When you don't feel like yourself
- Other

You will use test strips and a blood sugar meter to check your blood sugar. **Talk with your insurance company to see which meters and strips it will cover.** Test strips must match the glucose meter.

A1C

A1C = Average blood sugar for the past two to three months

eAG = Estimated average blood sugar



The American Diabetes Association recommends keeping A1C at or below 7% for most adults.

A 1% drop in A1C can decrease risk for long term complications of diabetes by 40%.



High Blood Sugar (Hyperglycemia)

When blood sugar is too high, it is called hyperglycemia.

High blood sugar can be caused by:

- Skipping or taking the wrong amount or kind of medicine
- Overeating or not staying on your meal plan
- Not exercising
- Too much strenuous exercise
- Stress or sickness
- Some medications



How do you stop high blood sugar?

- Your provider should give you guidelines on when to call with high blood sugar.
- Make sure to use the right kind and right amount of medicine at the right time each day.
- Test your blood sugar regularly and keep a logbook. Think about what may have caused the high blood sugar and how often it happens.
- See your provider when you are sick and/or have an infection.
- Establish a healthy meal plan with controlled portions.
- Refrain from exercise if your blood sugar is over 240 or you test positive for ketones.

Signs of High Blood Sugar

Early signs

- Sleepy
- Thirsty (dry mouth)
- Urinating more often
- Blurred vision
- Itchy skin

Later signs

- Nausea or vomiting
- Stomach cramps
- Fruity breath smell
- Flushed, hot skin
- Fast breathing
- Fainting or blacking out

Treatment

- Test your blood sugar.
- If your blood sugar is high, but less than 240, try a brisk walk (if approved by your provider) to help bring it down.
- Drink plenty of water unless it is limited by your provider.
- If your blood sugar is over 240, test your urine for ketones using ketone sticks, which can be bought without a prescription at a store or pharmacy. If positive, call your provider and get approval before you exercise.

Low Blood Sugar (Hypoglycemia)

When blood sugar is too low, it is called hypoglycemia. A blood sugar below 70 is thought of as low. People on insulin or diabetes pills (called sulfonylureas) are at higher risk for low blood sugar. If you use insulin or a sulfonylurea to manage your diabetes, it's a good idea to ask your doctor about keeping glucagon with you in case of emergencies. Hypoglycemia may happen for no clear reason.

The most common causes include:

- Putting off or skipping a meal
- Too little food
- Too much activity or unplanned activity without extra food
- Too much of the wrong kind of insulin or pills or taking them at the wrong time
- Drinking alcohol without food
- Stress or sickness

How do you stop low blood sugar?

- Take the right amount and kind of insulin or pills at the right time.
- Do not skip meals or snacks.
- Eat every four to five hours.
- Test your blood sugar often, especially before and after exercise.
- Try to match low blood sugar to peak action of insulin, exercise and eating.
- Talk to your provider about low blood sugar events, especially if they happen once a week or more and you do not have a reason why.

Signs of Low Blood Sugar

Early signs

- Sleepiness*
- Feeling clammy or sweaty
- Tingling lips, dry mouth
- Dizziness, light-headedness
- Fast heartbeat
- Headache
- Hunger
- Feeling irritable, cranky
- Blurry vision*
- Shakiness

Later signs

- Weakness
- Slurred speech
- Feeling confused
- Being clumsy
- Staggering
- Seizures
- Fainting, blacking out



- Warning signs can vary from person to person. Sometimes you may not feel any of the signs.
- Tell your family and friends what to watch for so they can help you right away.
- Sometimes the change from early stage to late stage is so fast that you may not have time to treat yourself.
- Low blood sugar should be treated right away.
- **Never drive** or take part in potentially dangerous activities when you think you may have low blood sugar.

*Symptoms of low blood sugar can easily be mistaken for symptoms of high blood sugar – and vice versa. Before acting, it is important to test!

Managing Low Blood Sugar

If you have any signs of low blood sugar, try to check right away. Even if you cannot test, start care anyway.

The Rule of 15

1. Check your blood sugar.
2. If lower than 70, or you have signs of low blood sugar, eat 15 grams of carbohydrates.
3. Wait 15 minutes. Check your blood sugar again.
4. If it is still less than 70, repeat steps 2 and 3.
5. Wait another 15 minutes.
6. If blood sugar is not going up, eat another 15 grams of carbs.
Call your doctor or have someone take you to the emergency room.
7. Your blood sugar should be above 70 before you eat a meal or snack.
Be sure to eat a meal or snack within 60 minutes of care.
8. Signs might continue. Do not overtreat, or your blood sugar could go too high.

Glucagon is a hormone that tells the liver to release glucose in an emergency situation. Keep some on hand and teach someone you know how to administer it.

To eat 15 grams of carbohydrates, choose one of the following:

- 3–4 glucose tablets (best option)
- 1 tube of glucose gel
- 3–4 teaspoons of sugar
- 1/2 cup fruit juice
- 1/2 cup regular (not diet) soft drink
- 2 tablespoons of raisins

If your blood sugar is 50 or below:

- Eat 30 grams of carbs.
- Try to find the cause of your low blood sugar.

What Will I Eat?

You may need to limit some foods to have good blood sugar control.



Three major nutrients in food have calories:

- Carbohydrates
- Protein
- Fat

Carbohydrates have the greatest effect on your blood sugar. You do not have to eat to see a rise in your blood sugar, but eating carbs does make it go higher. Starches and sugars are the carbs that change blood sugar the most. Too much at one time can cause spikes in your blood sugar.

Carbs are vital parts of a diet and are needed for good health. They contain vitamins, minerals and other nutrients that you do not get from protein and fat. They are your major source of energy. Avoiding carbs can lower your energy level.

Keep your blood sugar in your goal range by eating small amounts of carbs throughout the day.



Food Tips

- Until you meet with a dietitian, limit table sugar, agave, honey, syrup, jelly, sweet tea, sweetened coffee, sports drinks, cakes, pies, cookies, ice cream, candy, sweet rolls, fruit canned in syrup and regular gelatin.
- Avoid regular soft drinks (soda), unless you are having a low blood sugar.
- Limit fruit juice to ½ cup at a time, unless you are having a low blood sugar.
- Instead of sugar, use sweeteners that do not have calories. Some examples are Sweet and Low®, Equal®, Splenda® and stevia products.
- “Sugar-free” foods are not always the best choice. These foods may be sweetened with products that can raise blood sugar. They may still contain carbs.



- Do not skip meals.
- Limit low- or no-nutrition snack foods, like chips.
- Try to eat at the same time each day.
- Eat more nonstarchy vegetables.
- Choose whole grains.
- Bake, broil, boil or grill. Do not fry your food.
- Cut back on added fats, such as mayonnaise, butter, oil, margarine, gravy, salad dressing and nuts. Choose lower-fat foods when eating out.

Plan Your Plate



Fill half your plate with nonstarchy vegetables, such as salad, green beans, broccoli, yellow squash or carrots. Nonstarchy vegetables are lower in carbohydrate, so they do not raise blood sugar very much. They are also high in vitamins, minerals, and fiber, making them an important part of healthy eating.



Fill one quarter of your plate with carbohydrate foods, such as grains, starchy vegetables, beans and legumes, fruit, yogurt, and milk. These foods have the greatest effect on blood sugar. Choosing higher fiber carbs, such as whole grains, can help keep blood sugars from rising too high after meals.



Fill one quarter of your plate with lean protein foods, such as skinless chicken or turkey, lean beef or pork, fish, eggs or egg whites. Keep in mind that some plant-based protein foods (like beans and legumes) are also high in carbohydrates.

Breakfast may not include foods from all three parts of the plate. Include at least two food groups in your breakfast, and make sure to include plenty of fiber and protein that will keep you full until lunch time.

When You Are Sick

Sometimes you get sick, even when you are doing everything right. If this happens, you need to know how to care for your diabetes.

- Take your insulin or diabetes pills, unless your provider has told you to stop.
- Check your blood sugar at least every four hours, especially before each meal and at bedtime.
- Drink at least half a cup of caffeine-free fluid every 30 minutes.
- Sip water, diet soft drinks, broth or clear soup.
- If your blood sugar is low, you may need to drink fruit juice or regular soft drinks to give you some carbs.
- Take your temperature.
- Rest as much as possible.
- Check your urine for ketones.

Checking for Ketones

Ketones may appear in your blood and urine when you are sick or dehydrated. This is a serious health problem called diabetic ketoacidosis, or DKA.

Most drugstores carry strips for testing for ketones (some blood sugar meters also test using separate strips). Follow the directions on the strips package.

Dip a ketone strip into your urine. Compare the color square at the end of the strip to the color guide on the package after the recommended time.

Call your diabetes provider if your strip is positive for ketones.

What Does Diabetes Do to My Body?

Over time, high blood sugars may lead to:

- Heart disease, heart attack or stroke
- Kidney disease
- Eye disease and/or blindness
- Nerve disease
- Foot problems and/or amputations
- Gum disease and other mouth problems

Keeping track of the following things can help prevent or delay problems:

- A1C
- Blood pressure
- Cholesterol
- Eye health
- Foot health
- Serum creatinine (a check for how well your kidneys are working)
- Urine albumin excretion (a check for how well your kidneys are working)

Smoking

Smoking makes your diabetes harder to manage. If you have diabetes and you smoke, you are more likely to have serious health problems from diabetes, including heart disease, kidney disease, possible amputation and more. People with diabetes who quit are better able to manage their blood sugar levels.

For free help to quit, call **1-800-QUIT NOW (1-800-784-8669)** or visit **CDC.gov/tips**. Spanish-speakers can call **1-855-DÉJELO-YA (1-855-335-3569)** or visit **CDC.gov/consejos**.

Stress Management

The American Diabetes Association recommends that people with diabetes take care of their mind just as much as they do their body. Stress can be both a contributor to diabetes and a consequence of it. However, there are many effective ways to relieve stress.

The strategy that works best for one person may be different for the next person. Exploring different options can help a person find the strategy that works best for them. People with diabetes and stress may have lower blood sugar levels if they practice techniques that reduce stress. Strategies that increase coping skills and social support can also be effective.

Diabetes Pills

Some people can control their blood sugar with exercise and meal planning alone. Your doctor may also prescribe diabetes pills or insulin.

Pills are not insulin. They help your body control your blood sugar in many ways. Pills will only work if your body is still making some insulin.



Below are two frequently prescribed groups of diabetes pills.

- Metformin keeps the liver from letting extra sugar into the blood. It also helps the body use its own insulin better, and it lowers the amount of sugar that the body takes in from food.
- Glipizide, glyburide, glimepiride help your body make more insulin – be sure to take 15 minutes before a meal.

Be careful — some diabetes pills (and insulin) can make your blood sugar drop too low.



Insulin at Home

You may be on insulin while you are in the hospital, and your doctor may decide that you need to stay on insulin at home.

Basal-bolus Insulin Therapy

Basal-bolus insulin therapy controls your blood sugar in two ways:

- Long-acting insulin (basal) keeps your blood sugar under control during the night and between meals – should be taken unless your provider tells you otherwise.
- Fast-acting insulin (bolus) before your meals keeps your blood sugar from going too high after you eat.
- Pre-mixed insulins contain short and long acting insulin. They are commonly prescribed before breakfast and before dinner.

Syringe Disposal

You will use a syringe or pen needle, depending on injection device, to give yourself an insulin shot, and your used syringe is a medical waste. After one use, place the whole syringe in a heavy-duty plastic bottle with a screw cap. Use a container you cannot see through, and do not use a container that can be pierced by the needle.

Be sure the cap is tightly closed and taped before throwing away. Label the container “Do not recycle.”



Types of Insulin

Type	Onset	Peak	Duration
Rapid-Acting			
Humalog™ (lispro)	Less than 15 min.	30-90 min.	3-5 hr.
Novolog™ (aspart)	10-20 min.	40-50 min.	3-5 hr.
Apidra™ (glulisine)	20-30 min.	30-90 min.	1-2½ hr.
Short-Acting			
Regular Humulin R™ Novolin R™	30 min.-1 hr.	2-5 hr.	5-8 hr.
Intermediate-Acting			
NPH (N) Humulin N™ Novolin N™	1-2 hr.	4-12 hr.	10-18 hr.
Long-Acting			
Lantus™ (glargine)	1-2 hr.	No peak	20-24 hr.
Levemir™ (detemir)	1-2 hr.	Fairly flat	Up to 24 hr.
Pre-Mixed			
Humulin 70/30 Novolin 70/30	30 min.-1 hr.	2-10 hr.	10-18 hr.
Humalog 70/30 Humalog 75/25 Humalog 50/50	Less than 15 min.	1-2 hr.	10-18 hr.

Insulin Tips

Storing

- Very high or low temperatures can damage insulin. Do not put your insulin in the freezer, a hot car or direct sunlight.
- Check the expiration date on your insulin.
- After opening, insulin loses its strength after 28 days.

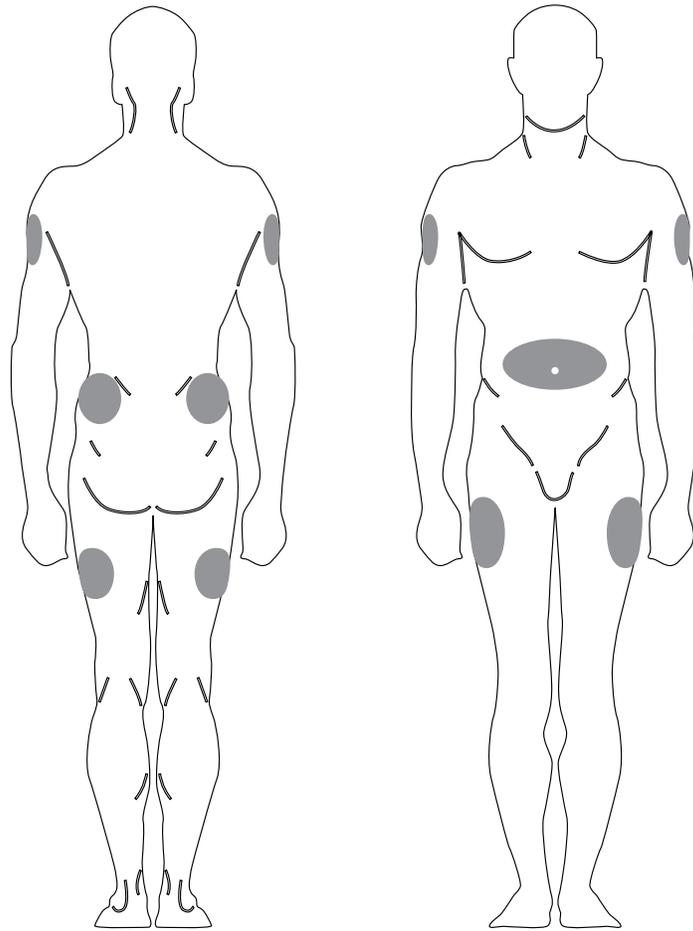
Mixing

- After mixing regular insulin with intermediate-acting insulin, inject it immediately before a meal.
- For cloudy insulin: Gently roll the vial between hands to mix.
- For clear insulin: Do not use if it is cloudy and has particles in it.
- When mixing two types of insulin, always draw clear regular insulin into the syringe first (“clear before cloudy”).



- Do not mistake the long-acting insulin with short- or rapid-acting insulin. They are all clear.
- Do not shake Lantus®.
- Do not mix Lantus® or Levemir® with any other insulin.
- Apidra™ can be mixed with NPH unless it is used in an insulin pump.
- Inject the insulin at least 1 inch from scars, tattoos or navel (belly button).
- Rotate the injection site within one area of the body for at least a week or two.

Places to Give Shots



My insulin

- Record your dose and place of the shot in your blood sugar logbook.
- Take your medication at the same time each day.
- Do not skip or change your medication without talking with your diabetes provider.

Diabetes Zones

Use these Zones to manage your diabetes. Talk to your diabetes provider about how to stay in the Green Zone.



Every Day Checklist:

- Check your blood sugars and record them
- Take your medicine on time
- Plan your meals
- Stay active



GREEN ZONE

My blood sugars are under control.

- My fasting and/or pre-meal blood sugars are 80–130.
- My blood sugars two hours after eating are less than 180.
- My A1C is 7 or under.

Continue the “Every Day Checklist” above.



YELLOW ZONE

My blood sugars are getting out of control.

- My fasting and/or pre-meal blood sugars are 130–160, or I have signs of high blood sugar (very thirsty, urinating more often than usual or blurry vision).
- My blood sugars two hours after eating are 180–240.
- I have had one low blood sugar (less than 70) in one day or one week, or I have had signs of low blood sugar (weakness, shakiness, sweatiness or confusion).

Be sure you are following the “Every Day Checklist.” Work with your healthcare team to get back to the Green Zone.



RED ZONE

My blood sugars are out of control.

- Most of my blood sugars two hours after eating are over 240.
- I have had more than one low blood sugar (less than 70) in one day or one week, or signs of low blood sugar.

Call your doctor immediately.

IMPORTANT: Blood sugar levels below 70 or above 240 may mean a serious medical condition. If you have slurred speech, seizure, blackout, fruity breath smell, trouble breathing and/or uncontrolled vomiting, seek immediate medical attention.

Diabetes Zones

Blood sugar targets vary from person to person. They can even vary in the same person over time. You and your diabetes provider should work together to decide what your target blood sugar range should be. Call your nurse or provider if you have repeated patterns of highs and/or lows, or symptoms of highs and lows.

Nurse's or Provider's Name: _____

Number: _____

Things to remember after talking to my nurse or provider: _____

Additional Resources

American Diabetes Association
1 (800) DIABETES / 1 (800) 342-2383
diabetes.org

Diabetes Association of Atlanta
Assistance with supplies: **(404) 527-7150**
diabetesatlanta.org

Where Can I Go For Help?

Wellstar's Diabetes Education program helps you learn the tools you need to live a healthy life with diabetes. Partnering with you and your doctor, we create a self-management plan that works for you based on your health, age, lifestyle, eating habits, beliefs and more.

With a physician referral, appointments are usually covered by Medicare and most insurance plans, depending on your specific health coverage.

Support Every Step of the Way

Wellstar hosts a diabetes support group. During the meeting, you can meet other individuals with diabetes and learn the latest on diabetes-related topics, trends and treatments.

For more information, call **(770) 793-7828** or email diabetes.scheduler@wellstar.org.

Sign up for a class

Ask your doctor for an order for diabetes classes.

Call Wellstar Diabetes Services at **(770) 793-7828** to register.

Wellstar Diabetes Services

diabetes.scheduler@wellstar.org

(770) 793-7828



wellstar.org