

Healthy You:

A Guide to Diabetes Self-Care



SURVIVAL SKILLS

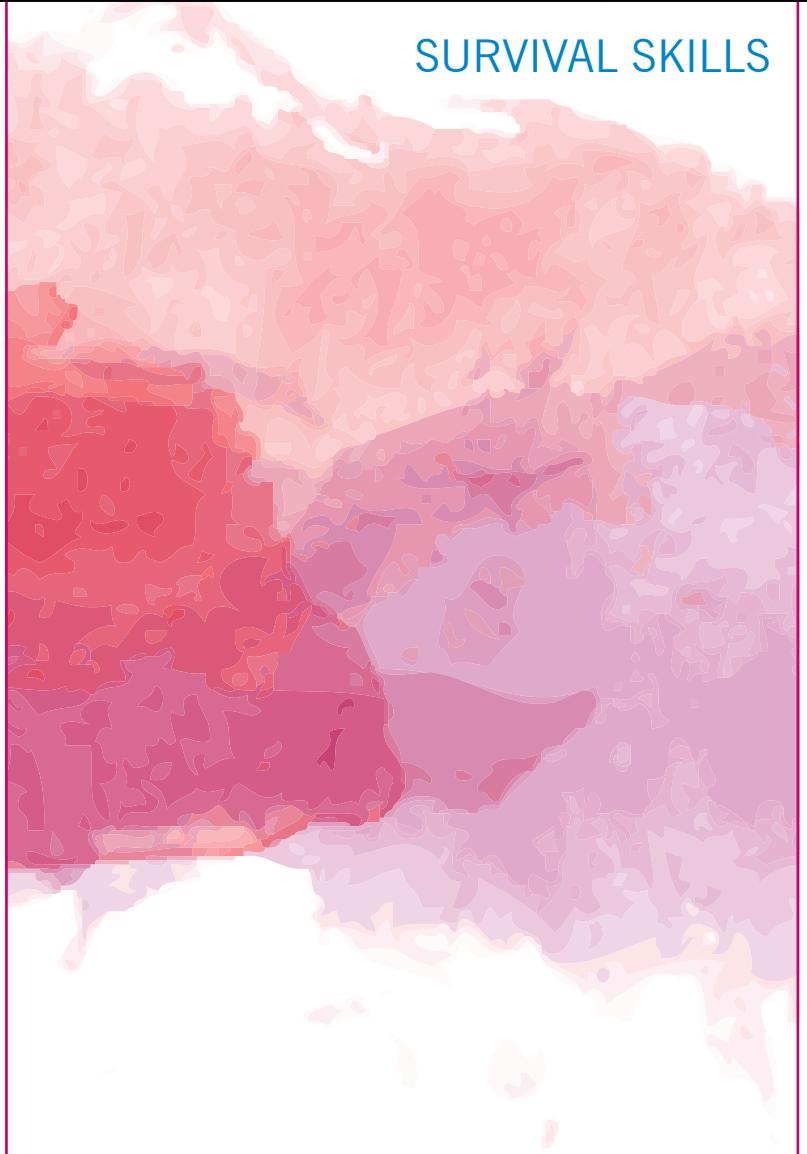


Table of Contents

Introduction	3
Monitoring Your Diabetes	7
Medications	11
Problem Solving	24
Healthy Eating with Diabetes	26
Managing Sick Days	30
Physical Activity and Diabetes	31

Introduction

You have diabetes. When you first heard this, it may have come as a total surprise to you or you may have thought receiving this diagnosis was just a matter of time. Your reaction to the news may have released a wide range of emotions. How do you feel about having diabetes? You may have feelings such as shock, fear, denial, confusion, sadness, or even depression. Or do you feel determined, empowered, and accepting of diabetes? All of these feelings are normal and you can expect them to change over time.

The good news is that although diabetes is a lifelong disease, with the right approach it can be managed and you can lead a healthy life. It requires that you be the manager of your diabetes. *You are in charge!*



Managing your diabetes will take time and practice. You will learn how to manage your diabetes with the help of your health care team. You will work together to learn how to:

- Eat healthfully
- Be physically active
- Take medications safely
- Monitor your blood sugar and interpret results
- Problem solve challenges confidently
- Reduce risks of diabetes complications
- Cope with the changes you need to make to manage your diabetes

Managing your diabetes means keeping your blood sugar within the target range. Doing so helps reduce the risk of developing complications, including:

Heart attacks | Strokes | Eye problems | Kidney disease | Nerve damage

Diabetes education is the first step in managing your diabetes.

The following are ways you can learn about diabetes:

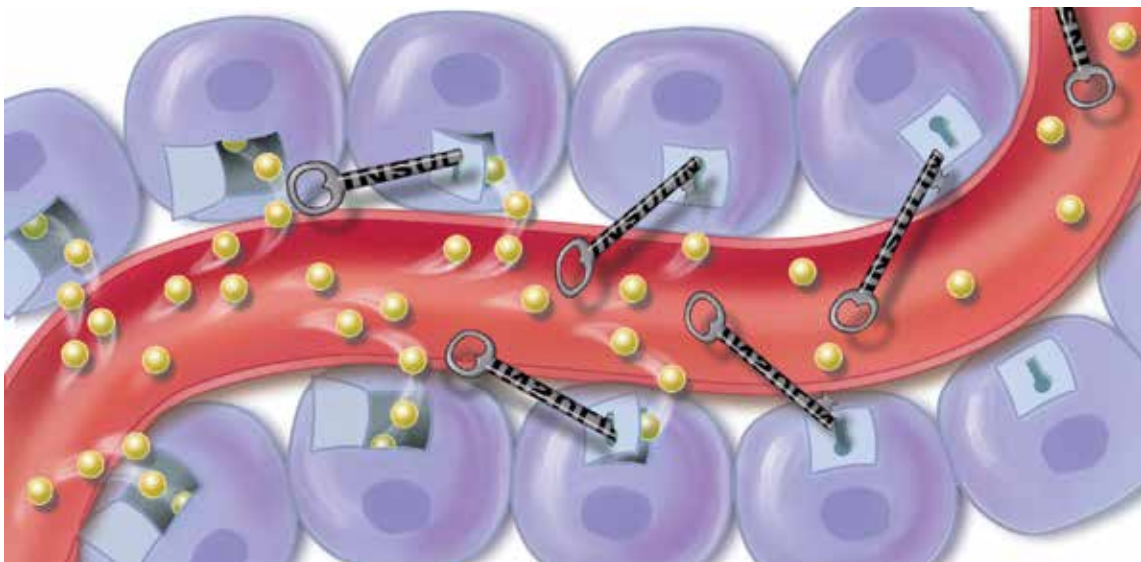
- Attend Diabetes Self-Management Education (DSME) classes.
- Meet with a dietitian at diagnosis and once a year after that.
- Ask questions of your health care providers.
- Visit trusted websites.

What is diabetes?

Diabetes is a disease in which the body:

- Does not make insulin
OR
- Does not make enough insulin
AND/OR
- Makes insulin but your body cannot use it correctly.

The pancreas is the organ that releases insulin. Insulin helps the body use sugar (glucose) for energy. Glucose in the blood comes from both food and your body's own natural release of stored glucose.



Legend: Yellow = Glucose, Keys = Insulin, Blue = Cells

Think of insulin as the “key” that opens the “doors” of the cells in your body. Once insulin opens the cell doors, sugar can leave the bloodstream and move into the cells where it will be used for energy. Without enough insulin, sugar can't get into the cells and instead builds up in the blood.

What is the difference between Type 1 and Type 2 diabetes?

	Type 1	Type 2
Age at onset	Usually under age 30, but can develop at any age	Usually over age 40, but is increasing in younger people
Development of symptoms	Rapid	Slow
Frequency	5%-10% of total people diagnosed	90%-95% of total people diagnosed
Symptoms	<ul style="list-style-type: none"> • Increased urination • Increased thirst • Increased hunger • Weight loss • Sometimes blurred vision 	<ul style="list-style-type: none"> • Same symptoms as Type 1 • No noticeable symptoms • Nerve damage or heart disease
Body type	Usually thin or normal weight	80%-90% overweight
Family history	Less common	Common
Ethnicity	More common in Caucasians	More common in non-white people; highest in Native Americans
Medical treatment	<ul style="list-style-type: none"> • Insulin is necessary for life • Healthy eating • Being physically active • Non-insulin injectable medication 	<ul style="list-style-type: none"> • Healthy eating • Being physically active • Oral medications • Non-insulin injectable medication • Insulin

Monitoring Your Diabetes

Why do I need to check my blood sugar?

Monitoring your blood sugar gives you information on how to manage your diabetes on a daily basis. It tells you how well your diabetes treatment is working at the moment.

Blood sugar levels can be monitored using either a blood sugar meter or a Continuous Glucose Monitor (CGM). A blood sugar meter measures the amount of glucose in a single drop of blood taken from the finger, and a CGM measures the glucose level 24 hours a day using a sensor inserted under the skin. Speak with your diabetes care team to see which tool would be best for you.

What should my blood sugar be?

Blood sugar targets may be different for each person and can change throughout the day. Your health care provider will tell you what range is best for you. The chart below includes the 2019 mealtime blood sugar goals from the American Diabetes Association.

Time of Test	Acceptable Results	My Target Range
Before meals	80-130 mg/dL	
1-2 hours after start of meal	Less than 180 mg/dL	
Before bedtime	100-150 mg/dL <i>If less than 100 mg/dL, have a snack</i>	

You can get blood sugar monitoring supplies from local pharmacies or some mail order companies. If you have insurance, check with your insurance company for coverage information. If you do not have insurance, check with your health care provider for other options.

How do I use a blood sugar meter?

1. Wash your hands with soap and warm water. If you are not able to wash with soap and water, use an alcohol wipe. The testing area must be completely dry. Do not use hand sanitizers.



2. Place a new lancet into the lancing device using instructions in the user manual.

3. Insert a test strip into the meter.

4. Place the lancing device firmly on the side of your fingertip. Press the button on the lancing device to obtain a drop of blood.

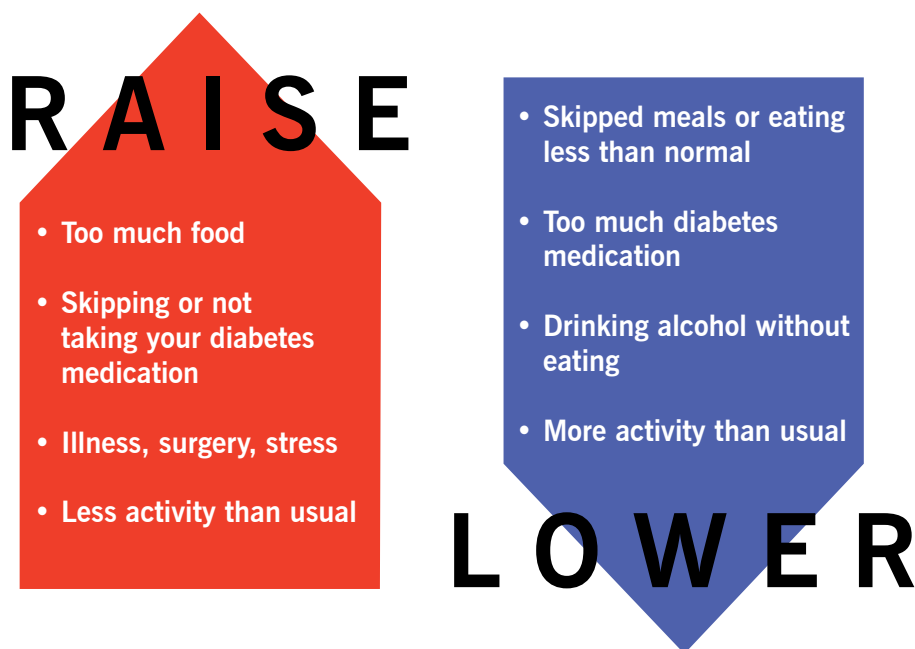


5. Place the testing strip against the drop of blood and allow the strip to absorb it.

6. Read the result from the meter. Write down your blood sugar in your log book. Throw the lancet away in a hard plastic container.

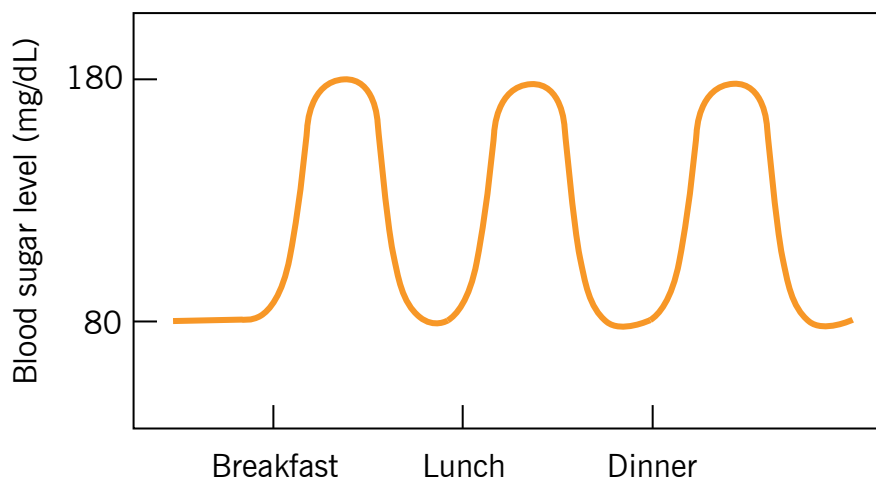


What can change my blood sugar?



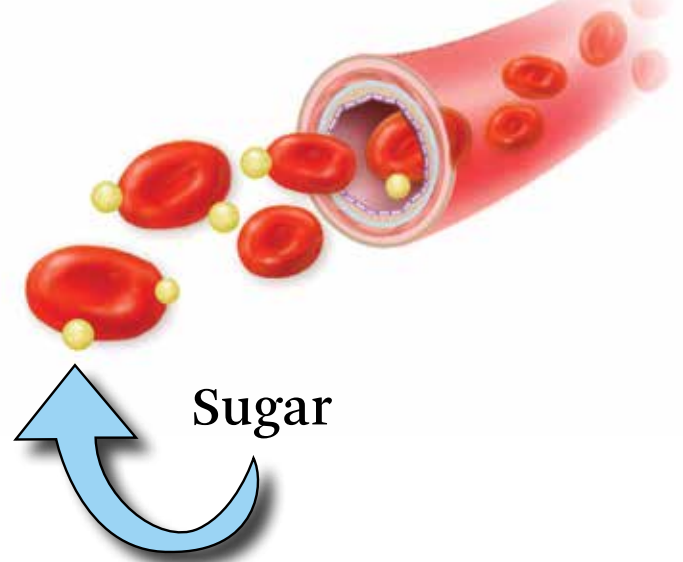
How does food and insulin impact my blood sugar level?

Carbohydrates (carbs) are a food nutrient that turns into glucose (sugar) in your body. As a result, your blood sugar increases when you eat carbs. But with the help of extra insulin either released from your pancreas or taken as an injection, your blood sugar should return to your pre-meal target range within the next four hours. This means that the amount of carbohydrate you eat or drink at meals and snacks will impact the amount of insulin your body needs in order to maintain target blood sugar levels.



What is the A1C lab test?

The A1C is a blood test that is done in a lab. It measures how much sugar has been stuck to your red blood cells over the past 2-3 months. You should have an A1C drawn every 3-6 months.



The A1C tells you if your treatment plan is working over time. If your level is too high, your treatment may need to be changed.

The American Diabetes Association's recommended A1C goal in 2019 for most non-pregnant adults was less than 7%. This is a blood sugar average of 154 mg/dL. Some people may have a different target. Talk to your health care provider about the best A1C target for you.

The A1C is an important test but it does not replace the need for home blood sugar monitoring.

Relationship of A1C and Estimated Average Glucose (eAG)

A1C%	eAG mg/dL
12	298
11.5	283
11	269
10.5	255
10	240
9.5	226
9	212
8.5	197
8	183
7.5	169
7	154
6.5	140
6	126
5.5	111
5	97

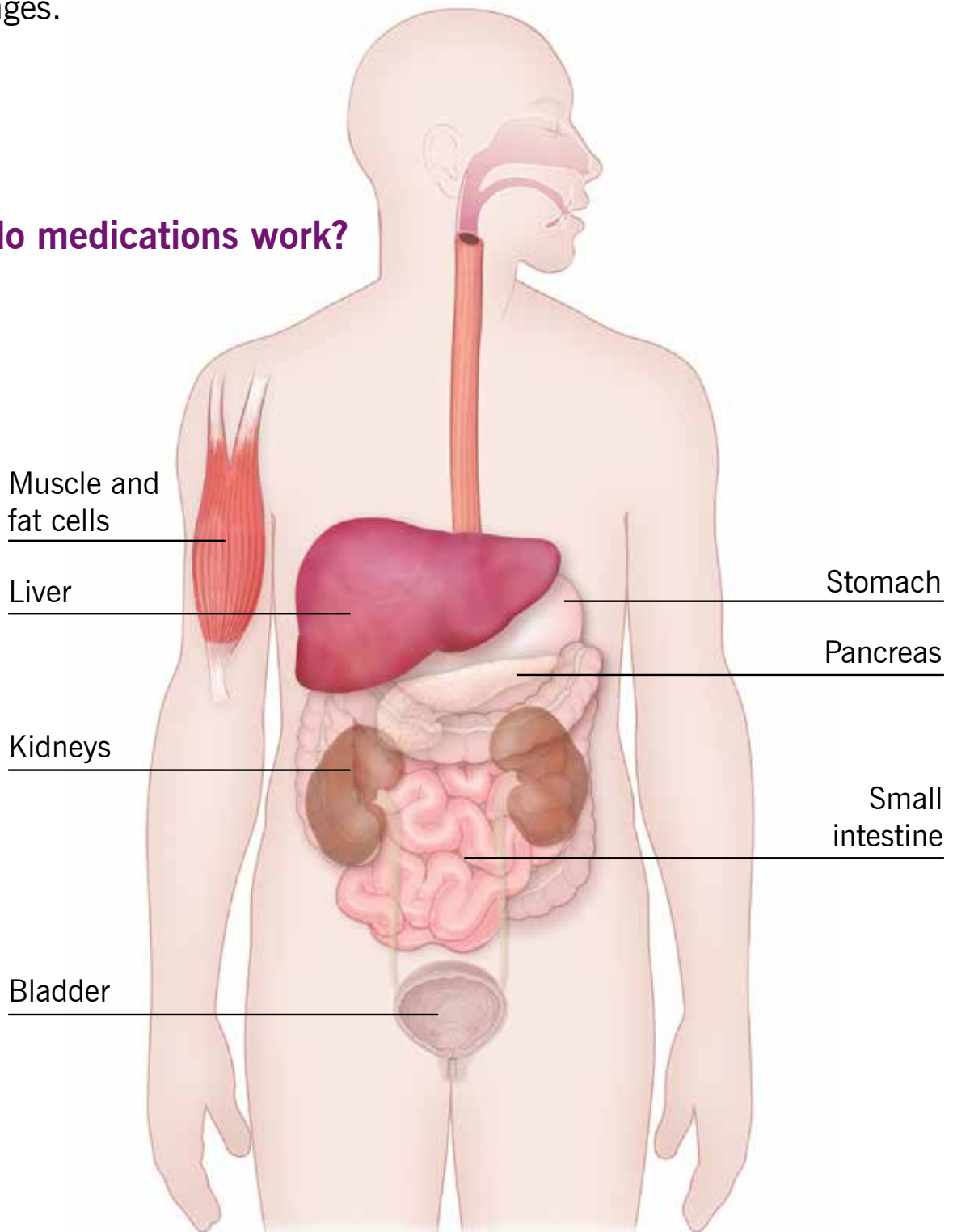
Target

Medications

Why do I need to take medications?

Along with healthy eating and being physically active, your health care provider may order medications to keep your blood sugar in the target range. Because different medications affect different parts of the body, more than one medication may be needed for the best blood sugar management. The best plan for you will be the one that works to keep your blood sugar in the target ranges.

Where do medications work?



How do my medications work, what are the side effects, and how should I take them?

	Generic Name	Brand Name	Maximum Total Dose	How it works
Biguanide	metformin	Glucophage [®] Glucophage XR [®] Glumetza [®] Fortamet [®] Riomet [®]	up to 2,550mg per day up to 2,000mg per day up to 2,000mg per day up to 2,500mg per day up to 2,550mg per day	Improves insulin's action in the body, lowers the amount of glucose released by the liver
Sulfonylurea	glipizide	Glucotrol [®] Glucotrol XL [®]	up to 40mg per day up to 20mg per day	Stimulates the pancreas to release more insulin
	glyburide	DiaBeta [®] Micronase [®] Glynase PresTab [®]	up to 20mg per day up to 20mg per day up to 12mg per day	
	glimepiride	Amaryl [®]	up to 8mg per day	
DPP-4 Inhibitor	sitagliptin	Januvia [®]	up to 100mg per day	Increases release of insulin after meals, lowers the amount of glucose released by the liver
	saxagliptin	Onglyza [®]	up to 5mg per day	
	linagliptin	Tradjenta [®]	up to 5mg per day	
	alogliptin	Nesina [®]	up to 25mg per day	
Thiazolidinedione	pioglitazone	Actos [®]	up to 45mg per day	Improves insulin's action in the body
	rosiglitazone	Avandia [®]	up to 8mg per day	

mg = milligrams

	Side effects	Comments/Instructions
Biguanide	<p>Stomach upset (nausea/diarrhea)</p> <p>Metallic taste in mouth</p> <p>Low B12 level</p>	<ol style="list-style-type: none"> 1. Medications in this class are pills 2. Does not cause low blood sugar or weight gain 3. Usually taken with food to help avoid side effects 4. Check with your health care provider about temporarily stopping before surgery and after radiology procedures requiring contrast materials(dye) 5. Requires regular tests to check liver and kidney function 6. Avoid daily or excessive alcohol intake
Sulfonylurea	<p>Low blood sugar</p> <p>Stomach upset</p> <p>Skin rash/itching</p> <p>Weight gain</p>	<ol style="list-style-type: none"> 1. Medications in this class are pills 2. Glipizide and glyburide are taken 30 minutes before meals 3. Glimperide is taken with first meal of the day
DPP-4 Inhibitor	<p>Upper respiratory infection</p> <p>Stuffy or runny nose</p> <p>Sore throat</p> <p>Headache</p>	<ol style="list-style-type: none"> 1. Medications in this class are pills 2. Works only when blood sugar is high 3. Does not cause low blood sugar 4. Requires regular tests to check kidney function 5. Can be taken with or without food
Thiazolidinedione	<p>Swelling</p> <p>Weight gain</p>	<ol style="list-style-type: none"> 1. Medications in this class are pills 2. Does not cause low blood sugar 3. Can be taken with or without food 4. Report swelling or shortness of breath to your health care provider

	Generic Name	Brand Name	Maximum Total Dose	How it works
Alpha-Glucosidase Inhibitor	acarbose miglitol	Precose [®] Glyset [®]	up to 300mg per day up to 300mg per day	Slows the breakdown of carbohydrate in the gut to slow the rise of blood glucose
Meglitinide	repaglinide nateglinide	Prandin [®] Starlix [®]	up to 16mg per day up to 360mg per day	Stimulates the pancreas to release more insulin after you eat
Bile Acid Sequestrant	colesevelam	WelChol [®]	up to 3,750mg per day	The effect on blood sugar control is not well understood
Dopamine Agonist	bromocriptine	Cycloset [®]	up to 4.8mg per day	Lowers the amount of glucose released by the liver
SGLT2 Inhibitors	canagliflozin dapagliflozin empagliflozin ertugliflozin	Invokana [®] Farxiga [®] Jardiance [®] Steglatro [™]	up to 300mg per day up to 10mg per day up to 25mg per day up to 15mg per day	Works on the kidneys to remove extra sugar from the body

mg = milligrams

	Side effects	Comments/Instructions
Alpha-Glucosidase Inhibitor	Stomach upset (gas, diarrhea, nausea, cramps)	<ol style="list-style-type: none"> 1. Medications in this class are pills 2. Does not cause low blood sugar 3. Take with first bite of meal 4. Treat low blood glucose with glucose tablet or gel 5. Should not be taken if the meal is skipped
Meglitinide	Low blood sugar Stomach upset	<ol style="list-style-type: none"> 1. Medications in this class are pills 2. Take before meals 3. Should not be taken if the meal is skipped
Bile Acid Sequestrant	Constipation Stomach upset	<ol style="list-style-type: none"> 1. Medications in this class are pills 2. Take with meal(s) and a full glass of water 3. Also used to lower blood cholesterol
Dopamine Agonist	Low blood pressure Dizziness	<ol style="list-style-type: none"> 1. Medications in this class are pills 2. Take with food within 2 hours of waking up
SGLT2 Inhibitors	Yeast infections Urinary tract infections Urinating more often	<ol style="list-style-type: none"> 1. Medications in this class are pills 2. Can cause decreased blood pressure 3. Can cause hypoglycemia if taken with select diabetes medications 4. Taken once daily before the first meal of the day

	Generic Name	Brand Name	Maximum Total Dose	How it works
GLP-1 Agonist	exenatide extended release	Bydureon®	up to 2mg per week	Keeps food in stomach longer, increases insulin when you eat, lowers the amount of glucose released by the liver
	exenatide	Byetta®	up to 20mcg per day	
	liraglutide	Victoza®	up to 1.8mg per day	
	dulaglutide	Trulicity®	up to 1.5mg per week	
	lixisenatide	Adlyxin®	up to 20mcg per day	
	semaglutide	Ozempic®	up to 1mg per week	
	semaglutide oral	Rybelsus®	up to 14mg per day	
Amylin Agonist	pramlintide	Symlin®	up to 180mcg per day for Type 1 up to 360 mcg per day for Type 2	Promotes feeling of fullness by delaying emptying of the stomach, lowers the amount of glucose released by the liver

What is glucagon?

If a person with diabetes experiences severe low blood sugar (hypoglycemia), they could lose consciousness (pass out). Glucagon is a hormone that can help your body to release more of its own stored glucose in order to bring your blood sugar back up to a safe level. Here are some important things to know about glucagon:

- It is available by prescription in two forms: an injection or a dry nasal powder
- Those closest to you (friends and family) should be trained in the use of glucagon so they can give it to you in an emergency.

Side effects**Comments/Instructions****GLP-1 Agonist**

Nausea, vomiting
 Headache
 Diarrhea
 Decreased appetite

1. Rybelsus is a pill, all others in this class are injections
2. Helps with weight loss
3. Greater risk of low blood sugar if used with sulfonylurea
4. Byetta is taken within one hour of the morning and evening meals, Adlyxin is taken within 1 hour of the morning meal, and the rest of the injectable medications can be taken with or without food.
5. Rybelsus is taken in the morning at least 30 minutes before any other food, drink, or medications. It must be taken with no more than 4 ounces of plain water only.

Amylin Agonist

Nausea, vomiting
 Decreased appetite

1. Medications in this class are injections
2. Take immediately before meals
3. Symlin and insulin must be administered as separate injections
4. Helps with weight loss

- Those closest to you should always know where your glucagon is stored.
- After giving you glucagon, your friend or family member should call 911 for emergency medical help right away.

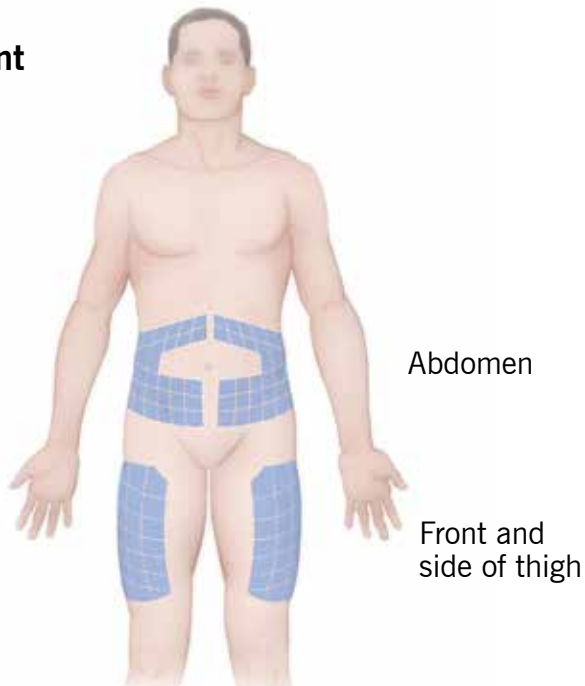
Talk to your health care provider or a diabetes care and education specialist to find out if glucagon should be included in your diabetes care kit and to learn how to use it.

What do I need to know about insulin?

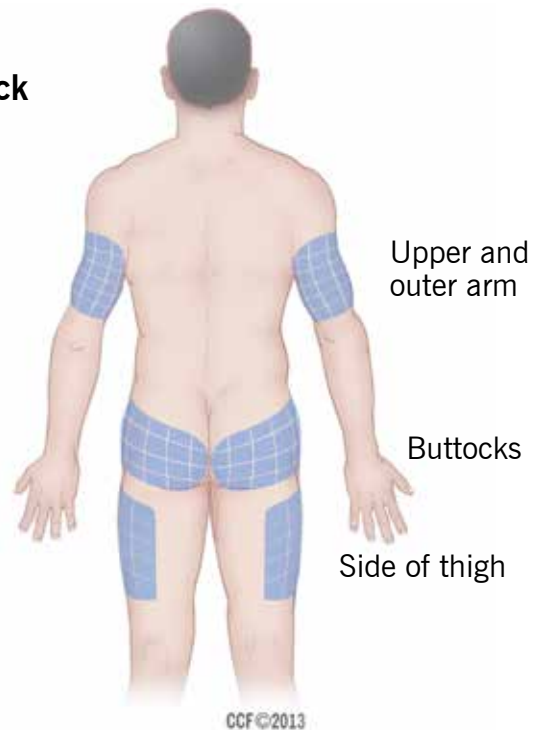
Medication Name	Onset (Start of Action)	Peak (When it Works its Hardest)	Duration (How Long it Stays in Body)	Use (When to Take)
Rapid Acting				
glulisine (Apidra®)	5-20 min	1-3 hrs	3-5 hrs	Take 5-15 min before eating
lispro U100/U200 (Humalog®)	5-20 min	1-3 hrs	3-5 hrs	Take 5-15 min before eating
aspart (Novolog®)	5-20 min	1-3 hrs	3-5 hrs	Take 5-15 min before eating
aspart (Fiasp®)	2.5-20 min	1.5-2.5 hrs	5-7 hrs	Take at first bite or within 20 min after starting a meal
Short Acting				
Regular	30-60 min	2-4 hrs	5-8 hrs	Take 30-60 min before eating
Regular U500	30 min	2.5-5 hrs	Up to 24 hrs	Take 2-3 times daily
Intermediate Acting				
NPH	1-2 hrs	4-12 hrs	14-24 hrs	Take twice daily
Long Acting				
degludec U100/U200 (Tresiba®)	—	No peak	Up to 42 hrs	Take once daily
detemir (Levemir®)	—	No peak	Up to 24 hrs	Take 1-2 times daily
glargine (Lantus®/ Basaglar®)	—	No peak	Up to 24 hrs	Take once daily
glargine U300 (Toujeo®)	—	No peak	Up to 36 hrs	Take once daily
Pre-mixed (Int. + Regular)				
70/30 (70% N and 30% R)	30 min	2-12 hrs	10-16 hrs	Usually taken before breakfast and dinner
Pre-mixed (Int. + Rapid)				
Humalog® Mix 75/25™	5-20 min	1-2 hrs	10-16 hrs	Usually taken before breakfast and dinner
Humalog® Mix 50/50™				
Novolog® Mix 70/30				
Pre-mixed (Long + GLP-1)				
Soliqua® (glargine/lixisenatide)	—	1-3.5 hrs	Up to 24 hrs	Take within 1 hr before 1st meal
Xultophy® (degludec/liraglutide)	—	8-12 hrs	Up to 42 hrs	Take once daily

Recommended Injection Sites

Front



Back



Insulin Side Effects

- The most common side effect of insulin is low blood sugar.

Storing Your Insulin Pens and Vials (Bottles)

IN USE

- Write the date on the pen or vial when you first open it.
- Keep the pen or vial you are using at room temperature.
- Avoid temperature extremes (*very hot or very cold temperatures will change how the insulin works*)*.

NOT IN USE

- Store unused and unopened insulin in the refrigerator.
- The insulin will be good until the expiration date printed on the box.

*Throw away any insulin that changes color or looks like it has clumps or anything floating in it.

Instructions for Injections Using a Pen

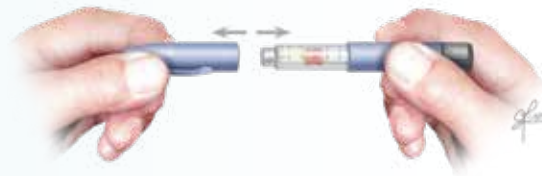
1

Wash your hands and gather supplies: insulin pen, pen needle, and alcohol swab.



2

Remove the pen cap.



3

Wipe stopper with alcohol swab.



4

If insulin is cloudy roll the pen (do not shake) in your hands and turn from side to side for one full minute. Rolling is not necessary if insulin is completely clear.



5

Attach new pen needle to pen.



* Pen needles come in a variety of sizes. Talk to your health care provider to choose the pen needle that is best for you.

6 Pull off the outer and inner needle caps.*



7 Follow the pen manufacturer's directions to prepare or prime your pen.



8 Select dose of medication.



9 Prepare the injection site by cleaning with alcohol swab. Perform the injection using the recommended technique.



Hold for **6-10** seconds.

10 Place the outer cap on the needle and remove the disposable needle from the pen. Throw the needle away in a hard plastic container. Replace pen cap.



Instructions for Injections Using a Vial (Bottle) and Syringe

1

Wash your hands and gather supplies: insulin bottle, syringe, and alcohol swab.



2

If insulin is cloudy roll the bottle (do not shake) in your hands and turn from side to side for one full minute. Rolling is not necessary with completely clear insulins.



3

If opening a new bottle remove the plastic cap (it will not be replaced). Wipe the top of the bottle with an alcohol swab.



4

Remove the caps from both the top and bottom of the insulin syringe. Do not touch the needle.



5

Pull the plunger down to the correct unit mark for the insulin dose ordered for you.



6 Insert the needle into the top of the bottle with the bottle on the table. Push the plunger down to inject the air into the bottle.



7 Turn the bottle upside down with the needle still in it. Hold the bottle at eye level. Make sure the needle is in the insulin and no air is in the syringe.



8 Pull the plunger down to the correct unit mark for the insulin dose ordered for you.



9 Check that the dose is correct, then pull the needle out of the bottle. Set the syringe down without letting the needle touch anything. Prepare the injection site by cleaning with the alcohol swab.



10 Holding the syringe like a pencil, insert the needle into the skin at a 90 degree angle. Make sure the needle is all the way through the skin. Push plunger until all insulin is injected and hold for 6-10 seconds. Throw the syringe away in a hard plastic container.

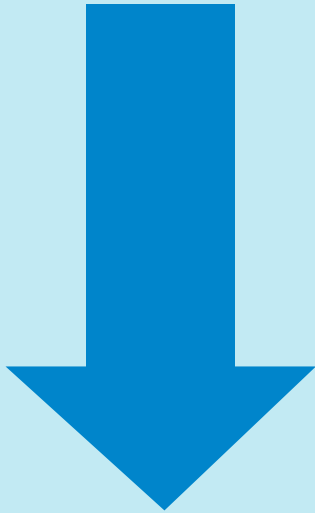


Problem Solving

Low Blood Sugar (Hypoglycemia)

What is it?

A blood sugar less than 70 mg/dL



What can cause it?

- Too much medication
- Not enough carbohydrates
- Skipped meals
- Increased activity



What are some symptoms?

sleepy

SHAKING

sweating

DIZZINESS

HUNGER

How do I treat it?

1. Eat/drink 15-20 carb grams (1 carb choice).

For example:



½ cup
juice or
regular
soda



3-5 pieces
of candy
(not
chocolate)



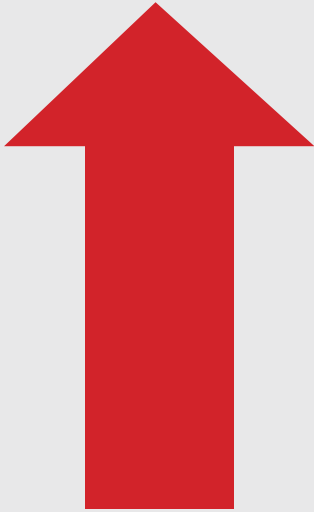
4 glucose
tabs

2. Wait 15 minutes. If still less than 70 mg/dL, repeat treatment.
3. If blood sugar does not come up after 3 treatments, call 911.

High Blood Sugar (Hyperglycemia)

What is it?

A blood sugar higher than your target



What can cause it?

- Not enough/skipped medication
- Too many carbohydrates
- Less activity than usual
- Illness, surgery, stress



What are some symptoms?

THIRSTY

**BLURRY
VISION**

FATIGUE

**FREQUENT
URINATION** 

HUNGER

How do I treat it?

1. Drink water.
2. Call your health care provider if your blood sugar is greater than 150 mg/dL for more than one week, or if you have 2 readings in a row greater than 300 mg/dL.



Healthy Eating with Diabetes

Having diabetes does not mean that you have to give up the foods that you like. The best meal plan for diabetes is one that includes foods and flavors you enjoy, fits into your lifestyle, and helps you to manage your blood sugar levels. Since there is no eating pattern that will work for everyone, meeting with a registered dietitian is one of the most important steps in finding the best meal plan for you.

Whatever meal plan you choose, understanding carbohydrates (carbs) will be an important part of managing your blood sugar levels. Carbs, protein, and fat are the main nutrients in food. But carbs raise your blood sugar because they turn into glucose (sugar) in the body.

Foods with carbs raise the blood sugar the most.

Sweetened drinks
Sweets, desserts, snack foods
Fruit (fresh, canned, dried, juice)
Milk, yogurt
Potatoes, corn, peas, starchy beans
Bread, rice, pasta, cereal, whole grains

Lower-carb foods raise the blood sugar a very small amount.

Non-starchy vegetables

Proteins and fats are not carbs so they raise the blood sugar the least.

Meat, poultry, seafood
Cheese, eggs
Nuts, seeds, soy products
Fats (ex: olive oil, avocado, butter)

Is it safe to eat carbs?

Although they raise the blood sugar, carbs are fuel for the body and part of a healthy well-balanced meal plan. The amount of carbohydrate needed at meals and snacks is different for each of us. It can vary from person to person depending on a variety of factors, including current weight and activity level.

If you have not had a chance to meet with a registered dietitian (RD) yet, here are some tips that can help with blood sugar management until your first visit:

- Aim for 30-60g of carb (2-4 carb servings) at each meal.
- Try to eat 3 meals per day.
- Aim for fresh fruits, fresh vegetables, and high-fiber foods.
- Avoid sweets, sweet drinks (including juice), and processed foods.
- Avoid foods for which you have a difficult time limiting the portion size.
- Plan your meals so your plate looks like the plate shown later in this book.

What is the difference between carb grams and carb choices?

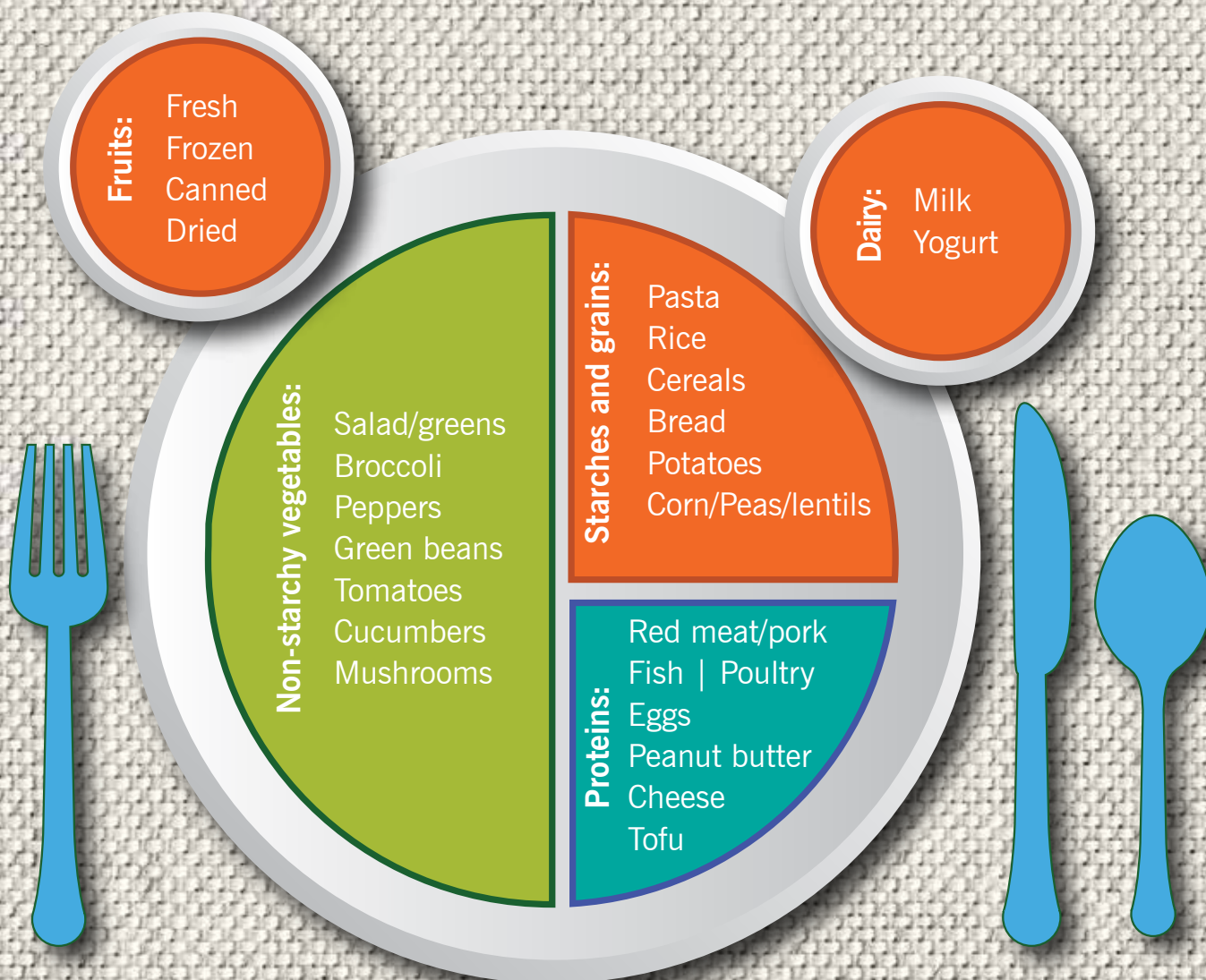
A gram is the carb measurement that is listed on all Nutrition Facts labels. It is the most common way of measuring the amount of carbohydrate in foods. Carb choices are measurements of carbohydrate found on some food packages and in some food lists for people with diabetes. One carb choice is the same as 15 grams of carbohydrate.

Food and Medication Safety

If you use set doses of mealtime insulin or medications called sulfonylureas (for example: glyburide, glipizide, or glimepiride) follow these guidelines to avoid low blood sugar related to meal planning:

- Do not skip or delay meals.
- Eat carbs at each meal.
- Aim for the same amount of carbs at each meal every day.

What should my plate look like?



How do I use nutrition information to count carbohydrates?

Serving size →

Total Carbohydrate →

Added Sugars →

Homestyle Potato Casserole

Nutrition Facts	
8 servings per container	
Serving size	1 cup (120g)
Amount Per Serving	
Calories	180
% Daily Value*	
Total Fat 2.5g	3%
Saturated Fat 1g	5%
<i>Trans Fat</i> 0g	
Cholesterol 10mg	3%
Sodium 430mg	19%
Total Carbohydrate 34g	12%
Dietary Fiber 2g	7%
Total Sugars 3g	
Includes 0g Added Sugars	0%
Protein 7g	14%
Vitamin D 0.8mcg	4%
Calcium 78mg	6%
Iron 0.36mg	2%
Potassium 376mg	8%
<small>*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.</small>	

1. Look at the **servicing size**. If you are eating more or less than the serving size listed, then adjust the number of carb grams you are counting.
2. Aim for foods that are very low in **added sugars**.
3. Look at the **total carbohydrate** grams (g). If your carb target is in grams, then the number listed is the amount of grams for this food. If your target is in choices, then go to step 4.
4. Divide the carb grams by 15 to determine the number of carb choices to count for this food.

Managing Sick Days

Why do I need to be concerned about sick days?

Illness, infection, and any other stress on the body can cause blood sugar levels to increase. These high blood sugar levels can further weaken the body's immune system, making it harder for your body to fight the infection or illness. Below are some rules that will help with blood sugar levels when you are sick:

- Check your blood sugar every two to four hours.
- Do not stop taking your diabetes pills and/or insulin, even if you cannot eat.
- If you are unable to keep down solid food, include a 15 gram carbohydrate fluid choice and drink 1 cup of a sugar-free beverage every hour. Every 3-4 hours, drink a beverage that contains sodium and minerals needed by your body during sick days.
- If you are able to keep down solid food, follow your regular meal plan and drink 1 cup of sugar-free fluid every hour.
- Take your temperature.
- If you need to take over-the-counter medicines, ask your doctor or pharmacist for a list of sugar-free products.
- **Check your urine for ketones* using ketone test strips.**
Do this every four hours when:
 - 1. Your blood sugar is higher than 250 mg/dL**
 - 2. You are vomiting**
 - 3. You have diarrhea**

Call your health care provider if there are ketones in your urine.

*If your body is not able to use sugar for energy, it will break down its own fat for energy. When fat is broken down in this way, ketones can appear in your urine. Ketones in your urine can be dangerous.

Physical Activity and Diabetes

Physical activity is one of the best ways to lower your blood sugar. Being active is as important as taking your medicine, checking your blood sugar, and planning your meals.

Be sure that the activity you are planning is safe for your health. **Before you begin an exercise program, talk with your health care provider.**

How often should I be active?

Your goal should be at least 30 minutes, five days per week.

One 30-minute session may be broken into three 10-minute sessions.

Are there any rules for exercise safety?

- Exercise with someone else, if possible.
- Carry a cell phone.
- Wear your medical alert tag.
- Carry a fast-acting carb with you.
- Bring your blood sugar monitoring supplies.
- Check your blood sugar before and after exercising.
- Wear the proper shoes and socks for exercising. Check your feet for sores before and after you exercise.



To schedule a diabetes education visit at a Cleveland Clinic location near you, call one of the following numbers:

Akron General	330.344.5760
Ashtabula, Conneaut, or Jefferson	440.994.7598
Avon Richard E. Jacobs	440.695.4000
Euclid, Mentor, or Willoughby Hills	216.491.7385
Hillcrest	216.491.7385
Independence	216.986.4000
Lakewood	216.237.5500
Lorain or Elyria	440.204.7200
Main campus	216.444.3672
Medina	330.721.5700
South Pointe, Solon, or Twinsburg	216.491.7385
Stephanie Tubbs Jones Health Center	216.767.4242
Strongsville	440.878.2500



Every life deserves world class care.