Living better with diabetes

Survival skills

Sentara®

Table of contents

What is diabetes?

Diabetes is a disease that causes high blood sugar. It is a lifelong disease that can be controlled. Diabetes often occurs along with high blood pressure and high cholesterol.

There are common signs and symptoms of high blood sugar. People may have some or none of these symptoms:

- Increased thirst
- Hunger
- A need to urinate often
- Sudden weight loss
- Blurred vision
- Weakness
- Numbness or tingling of hands or feet
- Slow healing cuts or sores
- Dry, itchy skin

Diagnosing diabetes

Blood tests are used to diagnose diabetes and pre-diabetes. Any one of the following tests can be used to diagnosis diabetes:

- an A1C test, also called the hemoglobin A1C, HbA1C, or glycohemoglobin test
- a Fasting Plasma Glucose (FPG) test
- an Oral Glucose Tolerance Test (OGTT)
- Random (also called Casual) Plasma Glucose Test

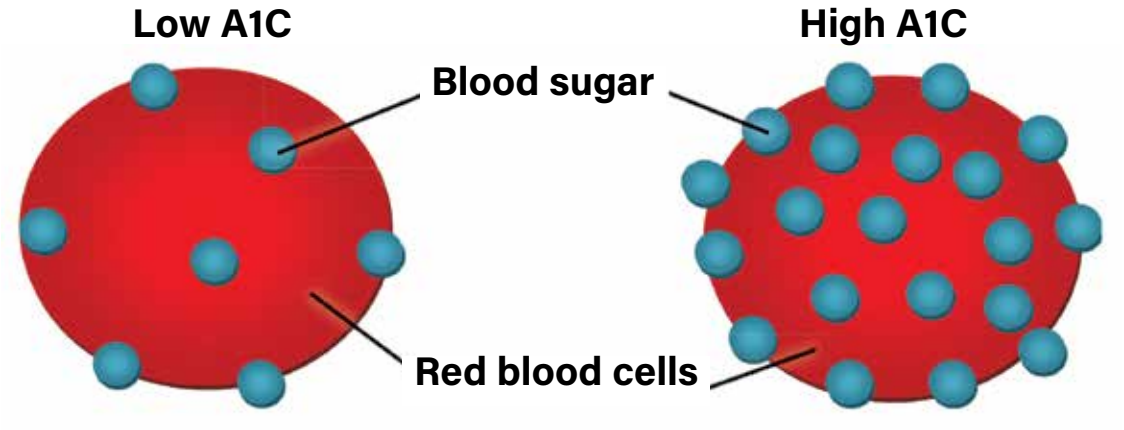
Diagnosis	A1C	Fasting Plasma Glucose	Oral Glucose Tolerance Test*	Random Plasma Glucose Test†
Normal	below 5.7%	99 mg/dL or below	139 mg/dL or below	N/A
Pre-diabetes	5.7% to 6.4%	100 to 125 mg/dL	140 to 199 mg/dL	N/A
Diabetes	6.5% or above	126 mg/dL or above	200 mg/dL or above	200 mg/dL or above

* 2 hours after glucose intake † Used when there are symptoms Source: American Diabetes Association, 2025

What is hemoglobin A1c?

Hemoglobin A1C is a test that tells the average blood sugar over the past 2 to 3 months. This test is used to determine how well your diabetes is being controlled. This test can be done in your healthcare provider's office or lab. Results of this test are given in a percent (%). The test shows the amount of sugar that sticks to the red blood cells.

The more sugar there is in the blood, the more harmful it can be.



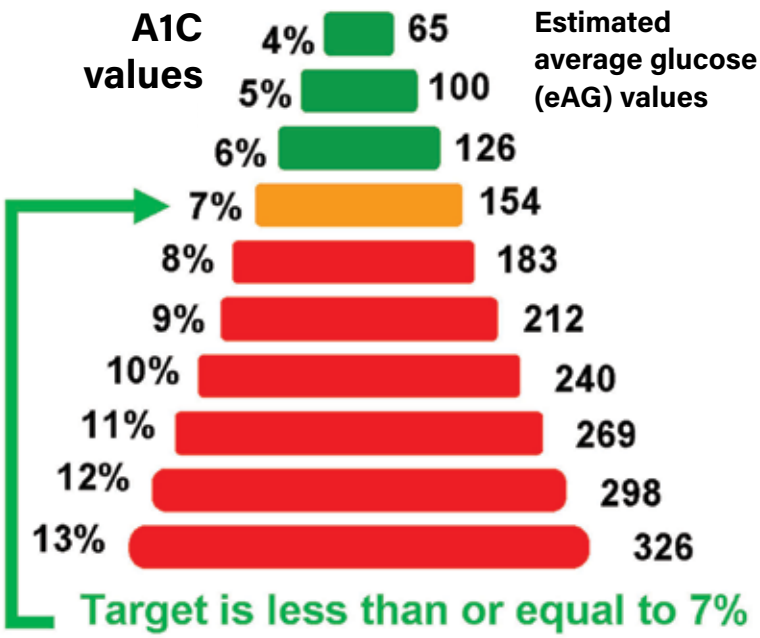
A1C and estimated average glucose

The A1C result is given in a percent (the left side) and the eAG result is given in a number (the right side) similar to what you will see on your blood glucose monitor.

For example, an A1C of 7% equals an eAG of 154.

Ask your healthcare provider about your A1C.

Your recent A1C _____

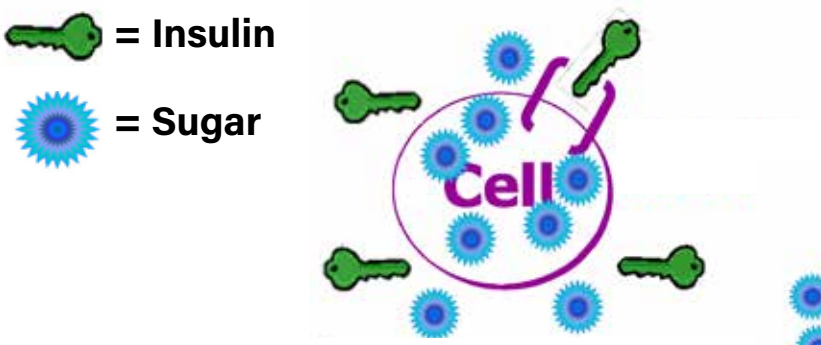


How the body gets energy

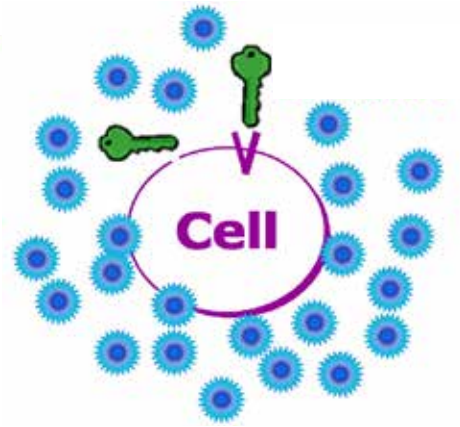
The body needs energy to work, just like a car needs gas to run. When we eat, some of the food breaks down into sugar (also called glucose). The body uses the sugar for energy.

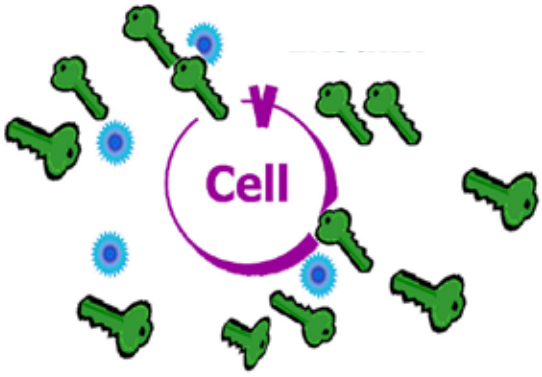
The body needs insulin to help move sugar from the blood into the cells where it is used for energy.

Insulin works like a key and unlocks the door to the cells letting the sugar inside.



When a person has diabetes there is not enough insulin or no insulin at all. Sugar builds up in the blood. Over time high blood sugar levels may harm the eyes, kidneys, nerves, blood vessels and heart.





Sometimes the cells are resistant to insulin. Then sugar cannot get inside the cells. This causes the blood sugar to rise above normal.

What are the types of diabetes?

Type 1 diabetes

This is the least common type of diabetes and usually occurs in children and young adults. In type 1 diabetes the body does not make insulin.

- People with type 1 diabetes must take insulin every day

Type 2 diabetes

This is the most common type of diabetes. In type 2 diabetes the body is making insulin but not using it well. Risks for type 2 diabetes include:

- A parent, brother or sister with type 2 diabetes
- Being overweight
- High blood pressure
- Low HDL (the good cholesterol)
- High triglycerides
- Lack of exercise
- History of pre-diabetes
- Gestational diabetes or having a baby weighing more than 9 pounds
- Race and ethnicity including: African American, Latino, Native American, Asian American, Native Hawaiian and other Pacific Islander
- Over the age of 45

Healthy eating, regular exercise, managing your stress and checking blood sugar help with diabetes control. Medicine may be needed to treat type 2 diabetes including insulin.

Healthy eating for diabetes

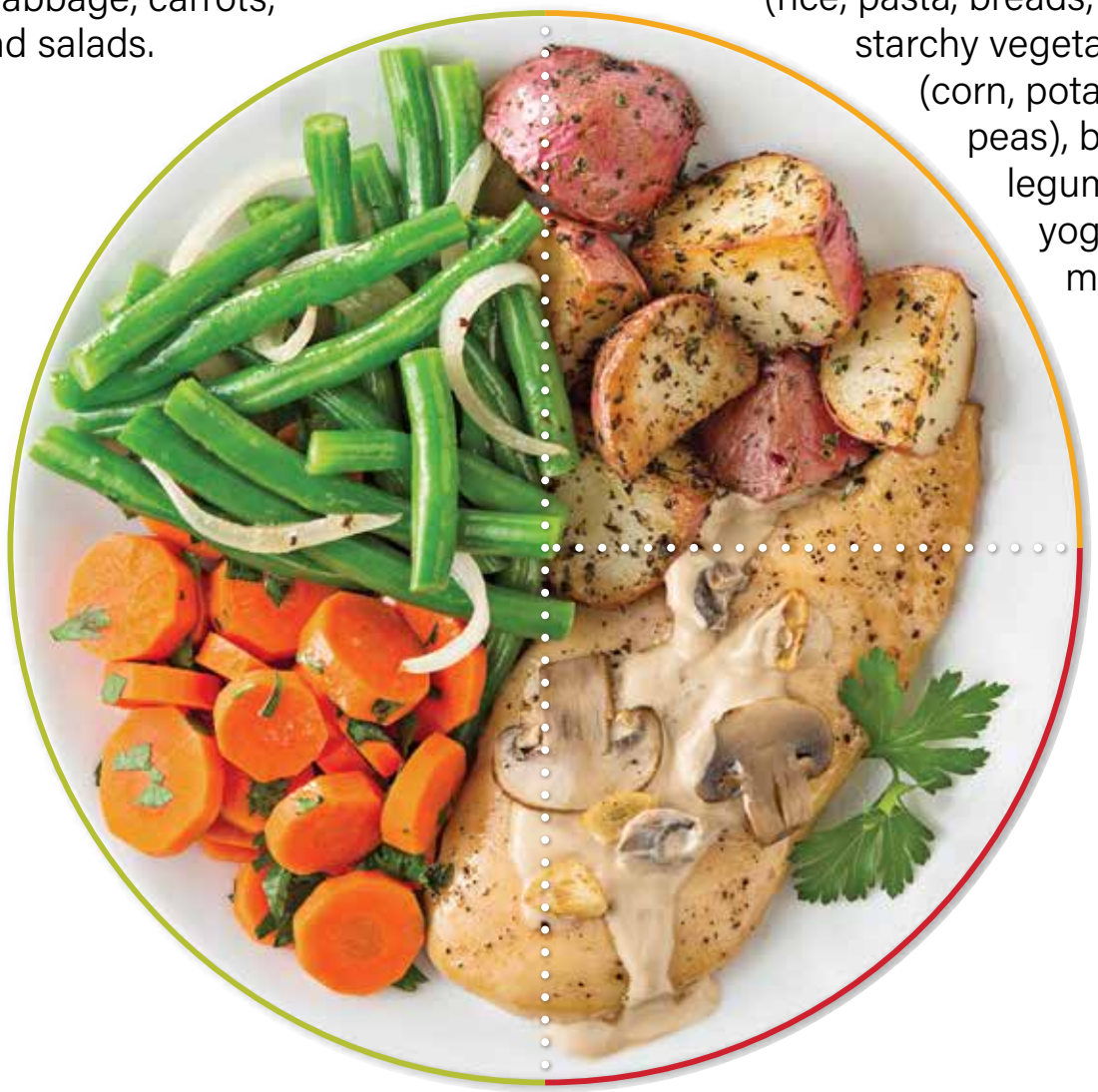
The plate method is a good way to help you plan a balanced meal and control portions. The plate method is easy using a 9-inch plate, and following three simple steps.

Step 1

Fill 1/2 of your plate with non-starchy vegetables such as green beans, broccoli, cabbage, carrots, greens, and salads.

Step 2

Fill 1/4 of your plate with foods higher in carbohydrates such as whole grains (rice, pasta, breads, tortillas), starchy vegetables (corn, potatoes, peas), beans and legumes, fruit, yogurt and milk.



Step 3

Fill 1/4 of your plate with foods higher in protein such as lean meat, fish, skinless chicken, eggs and low fat cheese.

Plate graphic source:

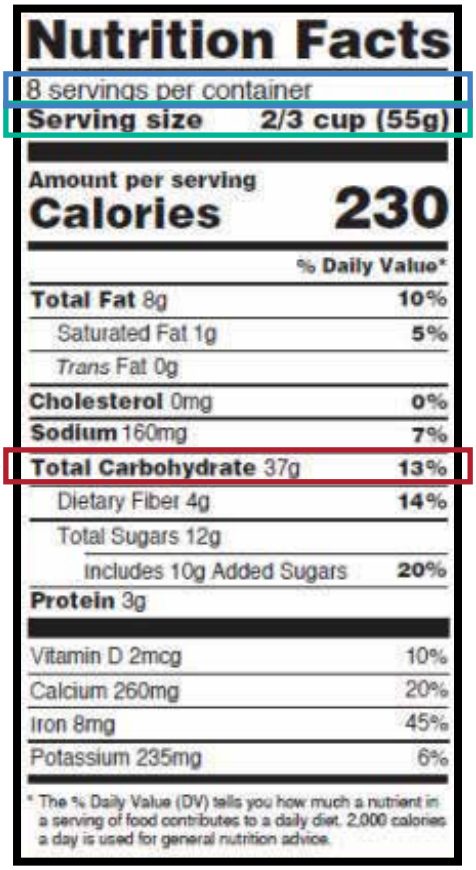
American Diabetes Association

How to read nutrition labels

Read food labels to see the serving size and number of carbohydrates in a serving. Using the food label to count carbs helps you manage your blood sugar.

Serving size

All label info is based on this portion.



Servings per container

The number of servings contained in the package.

Total carbohydrates

The total grams of carbohydrate in one serving (fiber and sugar included).

Aim for 45 – 60 grams carbohydrates at meals and 15 – 30 grams carbohydrates for snacks. See sample meal pattern on page 11.

Food list

Key			
g = grams	LS = low sodium	oz. = ounce	tsp = teaspoon
LF = low fat	mg = milligrams	Tbsp. = tablespoon	

The amount listed for every item on the food list is 1 serving

Starch
1 serving = 15 g carbs

- Bagel (½ 3-inch)
- Baked beans (⅓ cup)
- Bread (1 slice)
- Cereal (cold, unsweetened, ¾ cup)
- Corn/peas (½ cup)
- Crackers (LS-6)
- Dinner roll (1 small or ¼ Large)
- Edamame (cooked, 1 cup)
- English muffin (½)
- Grits/oatmeal/hot cereal (plain, cooked, ½ cup)
- Hamburger/hot dog bun (½)
- Kidney/pinto beans (½ cup)
- Lentils/black eyed peas (½ cup)
- Lima beans (⅔ cup)
- Pancake/waffle (4-inch)
- Pasta/rice/quinoa (⅓ cup, cooked)
- Pita pocket (½ 6-inch)
- Popcorn (air-popped, 3 cups)
- Potato (½ cup)
- Taco shell/tortilla (corn/flour, 6-inch)
- Winter squash (¾ cup)
- Yam/sweet potato (½ cup)

Choose high fiber foods:

- 100% whole grains/whole grain bread (1 slice)
- Brown rice/whole wheat pasta (⅓ cup, cooked)
- Oatmeal/high fiber cereal > 5 g fiber per serving (plain, ½ cup)
- Bran muffin (1 small)
- Sweet potatoes (½ cup)
- Vegetables and beans (½ cup)

Fruit
(fresh, canned in juice, frozen, dried)
1 serving = 15 g carbs

- Apple (small)
- Apple sauce/canned fruit (½ cup)
- Apricots (1 cup)
- Banana (small or ½ large)
- Blueberries (¾ cup)
- Cherries (15 or 1 cup with pits)
- Grapes (17 small)
- Kiwi (½ cup)
- Mango (cubed, ½ cup)
- Melon (cubed, 1 cup)
- Orange (1 small)
- Peach (1 medium)
- Pear (½ large)
- Pineapple (¾ cup)
- Prunes/dates (pitted, 3)
- Raisins (2 Tbsp.)
- Raspberries (1 cup)
- Strawberries (whole, 1 ¼ cup)
- Tangerines/clementines/plums (2)
- Watermelon (cubed- 1 ¼ cup)

Dairy/dairy substitutes
1 serving = 12-15 g carb

- Evaporated skim milk (½ cup)
- Milk (skim/1%- 8 oz.)
- Ice cream (no sugar added/slow churned, ½ cup)
- Lactaid (LF, 8 oz.)
- Instant non-fat dry milk (⅓ cup)
- Soy/Oat milk (8 oz.)
- Yogurt (Greek/LF/plain, 6 oz.)

Food list, continued

Vegetables non-starchy
(fresh, frozen, LS canned) 1 serving = 5 g carbs
serving size = 1 cup raw or ½ cup cooked

- Artichokes
- Asparagus
- Arugula
- Beans (green, string, wax)
- Beets
- Broccoli
- Brussels sprouts
- Cabbage
- Cactus
- Carrots
- Cauliflower
- Celery
- Cucumber
- Eggplant
- Greens (collards, kale, etc.)
- Lettuce
- Mushrooms
- Okra
- Peppers
- Radishes
- Spinach
- Summer squash (yellow)
- Tomato
- Tomato sauce (canned, LS)
- Turnips
- Zucchini

Protein/meat
(fresh/frozen, cooked without salt)
1 serving = 0 g carbs, serving size = 3 ounces cooked

- Beef (loin or round)
- Chicken/turkey breast (skinless)
- Fish (not fried or smoked)
- Pork (loin)
- Shellfish
- Tuna/salmon (canned, LS in water)
- 95% or less lean ground meats
- Meat substitutes (equal to 1 oz. of meat)
- Cheese (LS, 1 oz.)
- Cottage cheese (LF/LS, ¼ cup)
- Egg (1)
- Egg white/egg substitute (¼ cup)
- Peanut butter (natural/LS, 1 Tbsp.)
- Tofu (½ cup)
- Tempeh (¼ cup)

Fat
1 serving = 0 g carbs

- Avocado (¼ medium)
- Butter/margarine (unsalted & no trans-fat, 1 tsp)
- Canola oil (1 tsp)
- Cream (dairy/non-dairy, 1 Tbsp.)
- Cream cheese (LF/whipped, 2 Tbsp.)
- Ground flaxseed (1 Tbsp.)
- Olives (5 large or 10 small)
- Olive oil (1 tsp)
- Peanut oil (1 tsp)
- Vegetable oil (1 tsp)
- Mayonnaise/Miracle Whip (1 Tbsp.)
- Nuts (unsalted, 2 Tbsp.)
- Sour cream (LF, 2 Tbsp.)
- Sunflower seeds (dried and unsalted, 2 Tbsp.)

Other food and beverage items
(Less than 5 g carbs, 5 g fat, and 35 mg sodium per serving)

Beverages

- Club soda/diet tonic water
- Coffee/tea (limit regular, 16 ounces/day)
- Diet sodas (decaffeinated)
- Sugar-free drink mixes

Condiments (free):

- Cooking spray
- Ketchup (LS, 1 Tbsp.)
- Lemon juice (2 Tbsp.)
- Lime juice (2 Tbsp.)
- Vinegar (2 Tbsp.)

Condiments (limit to 1 serving/day):

- Mustard (1 tsp)
- Salsa (LS, ¼ cup)
- Worcestershire sauce (1 tsp)

Foods

- Sugar-free gelatin and popsicles

Herb and spices (with no salt added):

- Salt-free seasonings and marinades

Sugar substitutes

- Equal, Splenda, Stevia/Truvia, Sweet and Low

Planning your meals

Every meal is a new beginning.

These goals are general recommendations. Work with a Certified Diabetes Care and Education Specialist or Registered Dietitian to develop meal goals that fit your lifestyle.

Meal items	Goals for every meal	Goals for a snack
Carbs (Starches, fruit, and dairy from the food list)	45-60 g (3-4 servings)	15-30 g (1-2 servings)
Protein	1-5 oz.	1-2 oz.
Fat	Less than 15-20 g	Less than 5 g
Saturated fat	Less than 5 g	0-1 g
Sodium	Less than 600 mg	Less than 100 mg
Fiber	Greater than 10 g	
Sample day		
Breakfast	½ cup plain oatmeal with cinnamon and a sugar substitute or 1/2-1 whole wheat English muffin 1 Tbsp chopped nuts added to oatmeal 8 oz. 1% or skim milk 1 small apple or add 2 Tbsp. of raisins to the oatmeal 1 egg (scrambled/hard-boiled)* 1 ounce low sodium cheese **Tip: Add non-starchy vegetables like onions and green peppers to scrambled eggs/omelets to add volume and flavor*	
Lunch	2 slices of whole wheat bread 2 ounces low sodium turkey, lettuce, tomato, onion, & 1 Tbsp. mayonnaise* 17 small grapes 6 ounces yogurt (Greek/low-fat/plain) Salad (use any items from the non-starchy vegetable list) with oil (1 tsp) and vinegar **Read nutrition label for number of slices in 2 ounces of meat or use a scale*	
Dinner	3-5 ounces of chicken or any lean meat 1 small dinner roll ½ - 1 cup mashed sweet potatoes with 1 tsp of butter/margarine 1 cup cooked green beans	
Bedtime snack	6 unsalted crackers 1-2 ounces of low-sodium cheese	

Checking blood sugar

What is blood sugar monitoring?

- It is using a drop of blood in a blood sugar monitor to see how much sugar (glucose) is in the blood.
- It is keeping a written log book of your blood sugar numbers to share with your healthcare team.

Why is blood sugar monitoring important?

- It tells how food, exercise and medicine affect your blood sugar.
- Your blood sugar numbers can help guide you in making a treatment decision.
- You and your healthcare team will use your blood sugar results to help you manage your diabetes.

What number should my blood sugar be?

- Talk with your healthcare team to see if these "target" numbers are right for you.

Blood sugar targets		
	Target	**My target**
Fasting/pre-meal (before eating meals)	80-130 mg/dL	
Post-meal (1-2 hours after eating)	Less than 180 mg/dL	
Hgb A1C	Less than or equal to 7%	

Talk with your healthcare provider or diabetes care and education specialist about the best times to check your blood sugar.

Possible times to check your blood sugar

- First thing in the morning before eating, drinking or activity
- Before a meal
- 2 hours after a meal
- At bedtime
- When feeling sick
- Before and after exercise
- When you think your blood sugar is too high or too low
- Before driving

Common diabetes medicines: pills

Diabetes pills may help your blood glucose numbers along with healthy eating, regular exercise, and limiting stress.

Each type of pill helps lower blood sugar in a different way. These medicines may improve your blood glucose numbers and may lower the risk of damage to your heart, blood vessels, kidneys, eyes and feet.

Tips for taking your pills

- If you forget to take a pill:
  - If you only take a morning pill, take the pill later in the day as soon as you remember.
  - If you forget until the next day, do not double up pills - it may cause low blood sugar.
  - If you take a morning and evening pill and forget the morning dose, do not double up pills - it may cause low blood sugar.
- Take your medicines every day. Do not skip doses of your medicines, even if your blood sugar is within your target range.
- Learn the names of your diabetes pills, the dose, and how often to take them.
- Learn the color and shape of your pills — if the color changes, ask the pharmacist why.
- Do not switch pills with other people.
- Do not let your medicine run out. Call your healthcare provider for refills a week before you run out.
- Call your provider if you have side effects but never stop taking your pills.
- Try to have one pharmacy fill all prescriptions.
- Have one pharmacist review your list of medicines for drug interactions.
- If you are having trouble paying for your medicine, tell your healthcare provider.
- Never use pills past the expiration date.
- Some pills may contain one or more medications (combination pills).
- Keep a list of the telephone numbers for your pharmacy and healthcare providers handy and add those numbers to your phone.

Brand name	Generic name	How it works	When to take pill	Side effects	Special tips
Amaryl Glucotrol, Glucotrol XL DiaBeta, Glynase, Micronase	**Glimepiride Glipizide, Glyburide**	Works in the pancreas to make more insulin	If you take one pill a day, take it before breakfast. If you take two pills a day, take one before breakfast and one before supper.	▪ **Low blood sugar** ▪ Weight gain ▪ Skin rash or itching	▪ Talk to your provider if you are allergic to sulfur. ▪ Ask your provider when you should take your pill each day. ▪ These medications can interact with alcohol
Prandin Starlix	**Repaglinide Nateglinide**	Works in the pancreas to make more insulin	Take within **30 minutes** before eating a meal	▪ **Low blood sugar** ▪ Weight gain	▪ If you skip a meal or are sick and not eating, do not take your pill ▪ Lowers blood sugar about one hour after you take it and is out of your body in about 3-4 hours.
Precose Glyset	**Acarbose Miglitol**	Slows down carbohydrates going into the intestines after a meal	Three times a day before each meal	Gas, bloating, diarrhea that usually goes away in a few weeks	▪ If you skip a meal or are sick and not eating, do not take your pill. ▪ **You need to treat low blood sugar with glucose tablets or gel.**
Glucophage, Glucophage XR, Fortamet, Riomet	**Metformin**	Lowers the amount of sugar made by the liver	Take one to two times a day with meals *Glucophage XR: Take with evening meal	▪ Nausea ▪ Upset stomach ▪ Diarrhea	▪ Your provider will check regularly to see that your kidneys work while you take this medication. ▪ If you are having surgery or a test with dye, tell your provider.
Januvia Onglyza Tradjenta Nesina	**Sitagliptin Saxagliptin Linagliptin Alogliptin**	Helps pancreas make more insulin after meals and helps the liver to make less sugar	Take one time daily	▪ Stuffy, runny nose ▪ Headache ▪ Sore throat or upper respiratory infection	▪ Talk with your provider if you have had pancreatitis.

Common diabetes medicines: pills, continued

Brand name	Generic name	How it works	When to take pill	Side effects	Special tips
Rybelsus	**Semaglutide**	Helps pancreas to make more insulin; Stops the liver from making sugar when you don't need it; Makes you feel full sooner; Slows down how fast food and sugar leave your stomach	Take one time daily	▪ Nausea ▪ Vomiting ▪ Abdominal pain ▪ Diarrhea, ▪ Decreased appetite	▪ Take at least 30 minutes before the first food, beverage, or other oral medications of the day with no more than 4 ounces of plain water only.
Actos **Avandia**	**Pioglitizone** **Rosiglitazone**	Works on the muscle to make it more sensitive to insulin and help the body use sugar better	Take one to two times daily	▪ Weight gain ▪ Ankle swelling	▪ You should have liver tests when you start taking these pills and every 2 months for the first year, regularly thereafter. ▪ Talk to your provider as these medications may make heart failure worse.
Invokana **Farxiga** **Jardiance** **Steglatro**	**Canagliflozin** **Dapagliflozin** **Empagliflozin** **Ertugliflozin**	Increases amount of sugar removed in urine	Take one time daily	▪ Urinary tract infection ▪ Increased urination	▪ Talk to your provider if you have high cholesterol.
Welchol	**Colesevelam**	Researchers don't know exactly how it works, but it lowers cholesterol and blood glucose levels	Take one to two times a day with meals	▪ Gas ▪ Constipation	▪ Talk to your provider if you have high cholesterol.
Cycloset	**Bromocriptine QR**	Helps the liver to make less sugar	Take within 2 hours of waking in the morning with a meal	▪ Nausea ▪ Constipation ▪ Headache	▪ If the morning dose is missed, wait until the next morning to take the next dose.

Common diabetes medicines: insulin

How does insulin work?

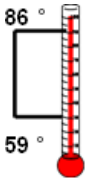
Insulin is a hormone your body makes that lowers blood sugar by helping move sugar from the bloodstream into your cells. If you have Type 1 Diabetes, your body makes very little or no insulin. In Type 2 Diabetes, either the body makes too little insulin, or the body does not properly use insulin.

Types of insulin

If you did not have diabetes, your body would make different amounts of insulin at different times to respond to the amount of sugar in your bloodstream. It would give you small steady amounts between meals and overnight when blood sugar is lower. This is sometimes called "basal" or "background" insulin. It would give you larger amounts when you eat a meal or snack when blood sugar is higher. That is sometimes called "bolus" or "mealtime" insulin. You may need to take one or both types of insulin to keep your blood sugar in goal. Different types of insulin work at different rates and for different amounts of time.

Basal	Bolus
Intermediate-acting	Rapid-acting
Long-acting	Short-acting

How should you store insulin?



- Unopened insulin should be stored in the refrigerator. Opened insulin may be stored at room temperature (between 59°F to 86°F).
- Write the date opened on the pen or vial after opening. Check with your pharmacist to see how long your specific insulin pen or vial lasts once it is opened.
- Consult package insert for disposal instructions. Discard all expired insulin.
- Do not store insulin in direct light, in very cold places (like the freezer), or in hot places (like the glove compartment of your car). Extreme temperatures will break down insulin.

How is insulin taken?

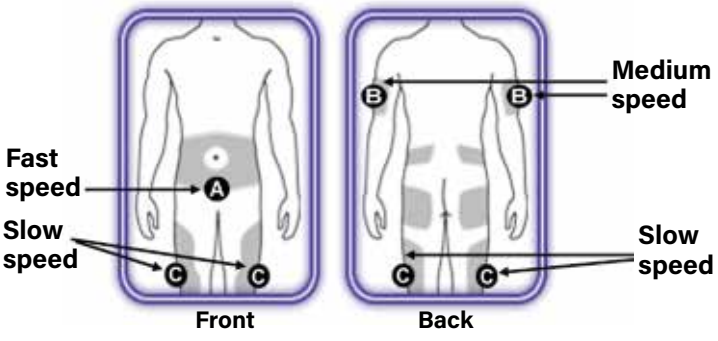
Insulin may be taken by injection using an insulin pen or a syringe and needle with a vial, by inhalation using a special inhaler, or using an insulin delivery patch or an insulin pump.

When should you take your insulin?

- Take long-acting (background/basal insulin) the same time each day.
- Take rapid-acting or short acting (mealtime/bolus insulin) 5-15 minutes before you eat.
- Always take your insulin as directed by your healthcare provider.

Where should you inject your insulin?

- You can inject insulin several places in your body. See the picture below for sites to inject your insulin.
  - Insulin works fastest when injected into the stomach. Avoid a 2-inch circle around the navel area.
  - Insulin injected in the arm works at medium speed.
  - Insulin injected in the thigh works the slowest.
- Avoid injecting insulin into scar tissue.
- Rotate your injection sites so you don't injure the skin and fatty tissue. Don't inject within a one-inch area around the last injection site.



What are the possible side effects of insulin?

- Low blood sugar
- Weight gain

Common diabetes medicines: insulin

Category	Name	Appearance	Action time				Tips
			Onset	Peak	Duration	Use	
Rapid acting	Lispro (Humalog®, Fiasp®, Lyumjev®, Admelog®)	Clear	15-30 minutes	1-3 hours	2-6 hours	Mealtime	▪ Always check expiration and appearance before use. ▪ Do not use clear insulin if it is cloudy. ▪ Do not use cloudy insulin if it has clumps or crystals. ▪ Do not shake insulin vials. ▪ Avoid putting heat on the injection area right after taking insulin (e.g., hot bath/ heating pad). ▪ Avoid giving yourself a shot in an area that you will use during exercise. ▪ Throw away your insulin syringes/ pen needles in a safe home sharps container. ▪ Do not reuse needles or syringes.
	Aspart (Novolog®, Fiasp®, Merilog®)	Clear	15-30 minutes	1-3 hours	3-7 hours		
	Glulisine (Apidra®)	Clear	20 minutes	1-2 hours	3-4 hours		
	Insulin Human (Afrezza®)	Not applicaple	Inhaled, absorption 12-15 minutes				
Short acting	Regular [R] (Humulin® R/ Novolin® R)	Clear	30-60 minutes	1-4 hours	3-10 hours	Mealtime	
Intermediate acting	NPH [N] (Humulin® N/ Novolin® N)	Cloudy	1-2 hours	4-12 hours	14-24 hours	As directed by provider	
Long acting	Detemir (Levemir®)	Clear	2-4 hours	6-8 hours	6-23 hours	As directed by provider Never mix with any other type of insulin	
	Glargine (Lantus®, Toujeo®, Toujeo Max®, Rezvoglar®, Semglee®, Basaglar®)	Clear	3-4 hours *6 hours for Toujeo®	No peak	24-36 hours		
	Degludec (Tresiba®)	Clear	1-2 hours	No peak	42 hours		
Pre-mixed	Combination of short and intermediate acting Humulin® 70/30 Novolin® 70/30	Cloudy	30-60 minutes	1-12 hours	Up to 24 hours	As directed by provider	
	Combination of rapid and intermediate acting Humalog® Mix 75/25 Humalog® Mix 50/50 Novolog® Mix 70/30	Cloudy	10-20 minutes	20 minutes-6.5 hours	Up to 24 hours		

Don’t forget to check your blood sugar as directed by your provider.

What is low blood sugar (hypoglycemia)?

Hypoglycemia is blood sugar less than 70mg/dL. Insulin and some diabetes medicines may cause low blood sugar. Low blood sugar may happen very quickly and may cause accidents or injuries.

Symptoms:

Fast heartbeat

Hunger

Sweating or chills

Headaches

Nervous or Anxious

Irritable or impatient

Dizzy

Change in vision

Weak or no energy

Confusion

How do you prevent low blood sugar?

- Check your blood sugar to be aware of drops in blood sugar levels.
- Eat at regular times – don't skip or delay meals.
- Take your medicines as directed.
- Check your blood sugar before you exercise.
- Always carry glucose tablets or a quick source of carbohydrates.

What are the causes of low blood sugar?

- Not enough food, skipping or delaying a meal.
- More exercise or activity than usual.
- Too much insulin or some diabetes medicines.
- Drinking alcohol without enough food.

Always treat low blood sugar—it will not go away if untreated.

How to treat low blood sugar

Check your blood sugar if you feel or suspect it is low.

Is it less than 70 mg/dL?

Yes

Follow "The Rule of 15"

- Take 15 grams of fast acting carbohydrates
- Wait 15 minutes, then recheck your blood sugar.
  - It should be 70mg/dL or above.

Is it less than 70 mg/dL?

Yes

Follow "The Rule of 15" again

- Take 15 grams of fast acting carbohydrates
- Wait 15 minutes, then recheck your blood sugar.
  - It should be 70mg/dL or above.

After two treatments with carbohydrates, if blood sugar is still below 70mg/dL, call **911.**

Examples of 15 grams of fast acting carbohydrates:

- 3-4 glucose tablets
- 1 tube of glucose gel
- ½ cup fruit juice (4 ozs)
- ½ can regular, not diet soda (4 ozs)
- 1 cup skim milk (8 ozs)
- 6 saltine crackers

Avoid chocolate, peanut butter or other foods with fat. They do not raise blood sugar quickly.

Low blood sugar safety tips:

- Always wear diabetes identification.
- Carry a cell phone.
- Share with others the signs and symptoms of low blood sugar and how to help you treat it.

What is high blood sugar (hyperglycemia)?

High blood sugar is a blood sugar over your target. See your blood sugar targets on page 13.

Symptoms:

Extreme thirst

Hunger

A need to urinate often

Tired, weak or dizzy

Dry, itchy skin

Upset stomach or vomiting

Unexplained weight loss

Blurred vision

Tingling or burning in the feet

How to prevent high blood sugar

- Check your blood sugar to be aware of rises in blood sugar levels.
- Don't overeat or drink sweet drinks. Eat at regular times.
- Take medicines as directed.
- Exercise regularly.
- Learn to manage the causes of your stress.
- Seek medical treatment for illnesses and infections.
- Follow your sick day plan. (See page 22)

Share with others the signs and symptoms of high blood sugar and how they can help you prevent it.

What are the causes of high blood sugar?

- Eating too much or drinking sweet drinks.
- Skipping diabetes medicines or not taking the correct doses.
- Some medicines can cause your blood sugar to rise. Check with your healthcare provider or pharmacist before taking new medicines.
- Not enough activity or exercise.
- Physical or emotional stress.
- Illness or infection.

How do you treat high blood sugar?

- Call your healthcare provider if you have a blood sugar higher than 250 mg/dL two times in the same day and you don't know why.
- Check blood sugar every 4 hours if your blood sugar is over 250 mg/dL and you don't know why.
- Write your blood sugars down in a log book to talk about with your healthcare provider.
- Take your medicines as directed.
- Follow your meal plan.
- Drink plenty of water.
- People with type 1 diabetes should check their urine for ketones.

Creating a sick-day plan

What happens when you are sick?

Sickness is a stressor. Any sickness may cause the blood sugar to rise, so keep taking your diabetes medicines.

Have a sick-day plan

Work with your healthcare team to make a sick-day plan before you get sick. Include in your plan:

- What medicines you should or should not take?
- How often to check your blood sugar?
- What foods and fluids to keep on hand?

When you are sick it is sometimes hard to stick with your regular meal plan.

Foods you can use for your sick-day plan:

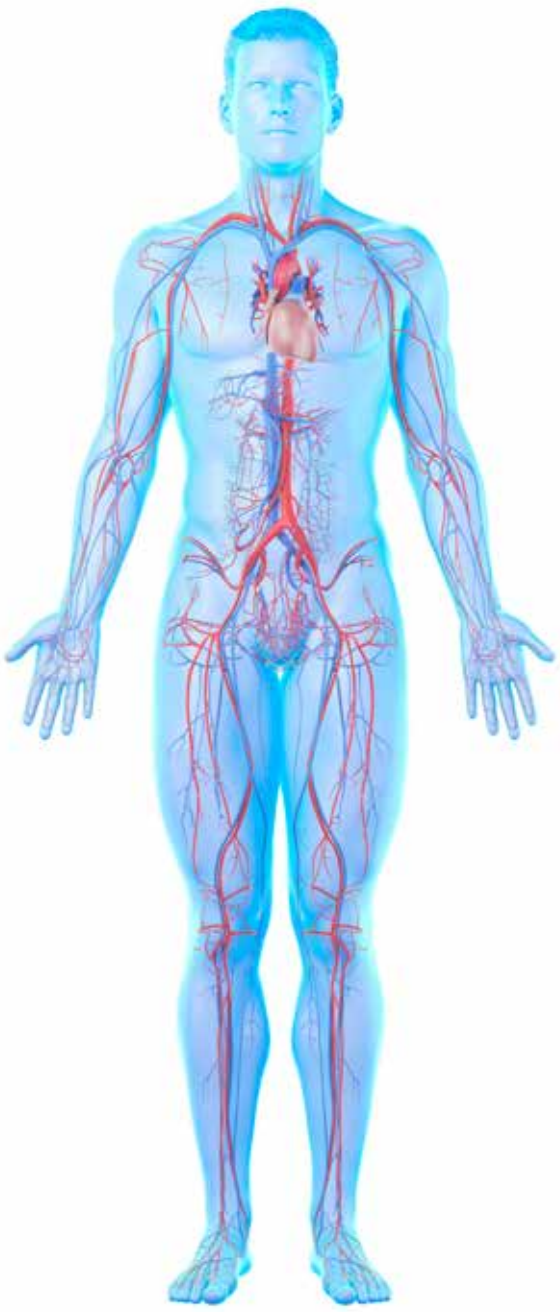
- 6 saltines
- 5 vanilla wafers
- 4 Lifesavers
- 3 graham crackers
- 1 slice dry toast (not light bread)
- 1/2 cup cooked cereal
- 1/3 cup frozen yogurt
- 1/2 cup regular ice cream
- 1/2 cup sugar-free pudding
- 1/2 cup regular (not sugar-free) Jell-O
- 1/2 cup custard
- 1/2 cup mashed potatoes
- 1/4 cup sherbet
- 1/4 cup regular pudding
- 1 double-stick popsicle
- 1 cup Gatorade (regular, not diet)
- 1 cup milk
- 1 cup soup
- 1/2 cup fruit juice
- 1/2 cup regular soft drink (not diet)

When to call your healthcare provider

- You've been sick or had a fever and aren't getting better.
- You've been vomiting or having diarrhea for more than 6 hours.
- Your sugar levels are higher than 250 mg/dL (or the number your doctor told you to use) and you don't know why.
- You are unsure what to do to take care of yourself.

What to tell the healthcare provider when you call:

- Your last 3 blood sugar numbers.
- Your last temperature and when you took it.
- What you ate or drank.
- What medicines you have or have not taken (don't forget over-the-counter medicine or any herbal supplements).
- How much vomiting and/or diarrhea you have been experiencing.



Uncontrolled blood sugar can lead to common diabetes-related complications

Common chronic complications:

- Stroke
- Heart disease
  - » Heart attack
  - » Heart failure
- Increased risk of flu or pneumonia, or COVID
- Digestive problems
  - » Nausea
  - » Poor digestion
  - » Bloating
- Sexual problems
  - » Erectile dysfunction
  - » Vaginal dryness
- Kidney disease (nephropathy)
  - » Leading to dialysis
- Bladder problems
- Eye problems
- Disorders of the retina (retinopathy)
  - » Blindness
- Sleep apnea
- Gum disease
- Depression
- Nerve damage (neuropathy)
  - » to any of the nerves in the body
- Blood vessel disease
  - » to any of the blood vessels in the body
- Foot or leg amputations
- Skin problems and infections

Questions to ask your healthcare provider

When you visit your healthcare provider there are many questions you need to ask. For example:

- What was my last A1C? What should my A1C be?
- How often and when should I check my blood sugar?
- What are my target blood sugar numbers?
- What's the highest and lowest my blood sugar should be before calling?
- What changes can we make to reach my blood sugar goals?
- What is my blood pressure? What are my target blood pressure goals?
- When was my last test for protein in the urine (microalbuminuria)? What are the results of my microalbuminuria test?
- Do I need any changes in my blood pressure medicine to reach my blood pressure goal and help protect my kidneys?
- What are my cholesterol and triglyceride levels? What should my HDL, LDL, total cholesterol and triglycerides be?
- Do I need any changes in my cholesterol medicine to reach my goal?
- How often do I need a dilated eye exam? Should I have a referral to an Ophthalmologist or Optometrist?
- What should I do to take care of my feet? Should I have a referral to a Podiatrist?
- When should I see you next?

Next steps:

1. Ask your healthcare provider for a referral for diabetes education

2. Meet with a diabetes care and education specialist

If you go to the hospital

- Make sure you tell all hospital staff that you have diabetes.
- Bring a current list of all your medicines including doses.
- Often oral diabetes medicines (pills) cannot be used while you are in the hospital.
- If your doctor admits you to the hospital this causes stress which causes your blood sugar to rise. These rises in blood sugar are often better managed with insulin—even if you were not on insulin at home.
- Being on insulin for a short time doesn't change the type of diabetes you have. It just means your healthcare team needs to manage your diabetes differently during the hospital stay.
- Insulin is the safest way to lower blood sugar.
- You may be discharged from the hospital with little or no change in your usual medicine routine.

Know your diabetes goals

Test	How often	Goal
A1C	Every 6 months or 4 times every year if not at target	Less than or equal to 7%
Blood pressure	Every office visit	130/80
Total cholesterol	Every year	Less than 200
LDL (bad cholesterol)	Every year	Less than or equal to 70 (55 if heart disease)
HDL (good cholesterol)	Every year	More than 40 for men; more than 50 for women
Triglycerides	Every year	Less than 150
Dental exam	Once every six months	Prevent gum disease and cavities
Depression screening	At time of diagnosis, then every year	Find and treat depression early
Dilated eye exam	Every year	Find eye problems early
Serum creatinine urine micro albumin	Every year	Find kidney problems early
Foot exam	Every year. If you have any type of foot injury, have your feet checked at each visit by your healthcare provider.	Find nerve and blood vessel problems early

Get vaccinated

Vaccine	How often	Decrease risk of getting...
COVID-19	Talk to your healthcare provider about how often to get vaccinated.	Coronavirus (infectious disease)
Hepatitis B		Hepatitis (liver infection)
Influenza		Flu (nose, throat, and lung infection)
Pneumococcal		Pneumonia (lung infection)
RSV		Respiratory Syncytial Virus (lung and respiratory tract infection)
Tdap		Tetanus, Diphtheria and Pertussis (whooping cough)
Zoster		Shingles (skin infection)

Getting vaccinated can decrease the risk of a hospital admission or death.

Notes

Service locations

Sentara Albemarle Medical Center
1144 North Road Street
Elizabeth City, NC 27909
P: 252-384-4139

Sentara BelleHarbour
3920 A. Bridge Rd.
Suffolk, VA 23435
P: 757-934-4879 **F:** 757-934-4536

Sentara CarePlex Hospital
4000 Coliseum Dr.
Hampton, VA 23666
P: 757-827-2097 **F:** 757-827-2173

Sentara Leigh Hospital
830 Kempsville Rd.
Norfolk, VA 23502
P: 757-261-8950 **F:** 757-995-7073

Sentara Martha Jefferson Hospital
500 Martha Jefferson Drive
Charlottesville, VA 22911
P: 434-654-4400 **F:** 434-654-4411

Sentara Norfolk General Hospital
600 Gresham Drive
Norfolk, VA 23507
P: 757-388-5582 **F:** 757-388-3152

Sentara Northern Virginia Medical Center 2300 Opitz Blvd. Suite 320
Woodbridge, VA 22191
P: 703-523-0590 **F:** 703-670-0345

Sentara Obici Hospital
2800 Godwin Blvd.
Suffolk, VA 23434
P: 757-934-4879 **F:** 757-934-4536

Sentara Princess Anne Hospital
2025 Glenn Mitchell Dr.
Virginia Beach, VA 23456
P: 757-507-2715 **F:** 757-716-3906

Sentara RMH Medical Center
2010 Health Campus Drive
Harrisonburg, VA 22801
P: 540-689-1182

Sentara RMH Timber Way Health Center
13892 Timber Way
Broadway, VA 22815
P: 540-901-0800

Sentara RMH East Rockingham Health Center
13737 Spotswood Trail
Elkton, VA 22827
P: 540-713-4100

Sentara RMH South Main Health Center
1661 South Main Health Center
Harrisonburg, VA 22801
P: 540-564-7302

Sentara RMH Evelyn Byrd Health Center
1871 Evelyn Byrd Avenue
Harrisonburg, VA 22801
P: 540-434-0559

Sentara Virginia Beach General Hospital Diabetes Center
1080 First Colonial Road
Medical Office Building Suite 407
Virginia Beach, VA 23454
P: 757-395-8836
F: 757-395-8626

Sentara Williamsburg Regional Medical Center
100 Sentara Circle
Williamsburg, VA 23188
P: 757-984-7106 **F:** 757-984-7109

Visit these sites if you would like more information about staying healthy with diabetes.

Sentara Health
sentara.com/services/diabetes
1-800-SENTARA
(1-800-736-8272)

American Diabetes Association
diabetes.org

National Diabetes Education Program
ndep.nih.gov/i-have-diabetes/index.aspx

Academy of Nutrition and Dietetics
eatright.org

Association of Diabetes Care and Education Specialist
diabeteseducator.org

American Heart Association
heart.org

National Institute of Diabetes and Digestive and Kidney Diseases
niddk.nih.gov

National Kidney Foundation
kidney.org

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