

# My Diabetes Learning Path

This program helps you personalize your learning needs at your own pace. It allows you to choose the information you need—from useful tips on healthy eating, being active, taking medicine, and staying on track—to support the diabetes management goals that you work with your healthcare professional to set.



# All Modules List

 Eating modules



 Moving modules



 Managing modules



 Staying on track modules



# Eating Modules List



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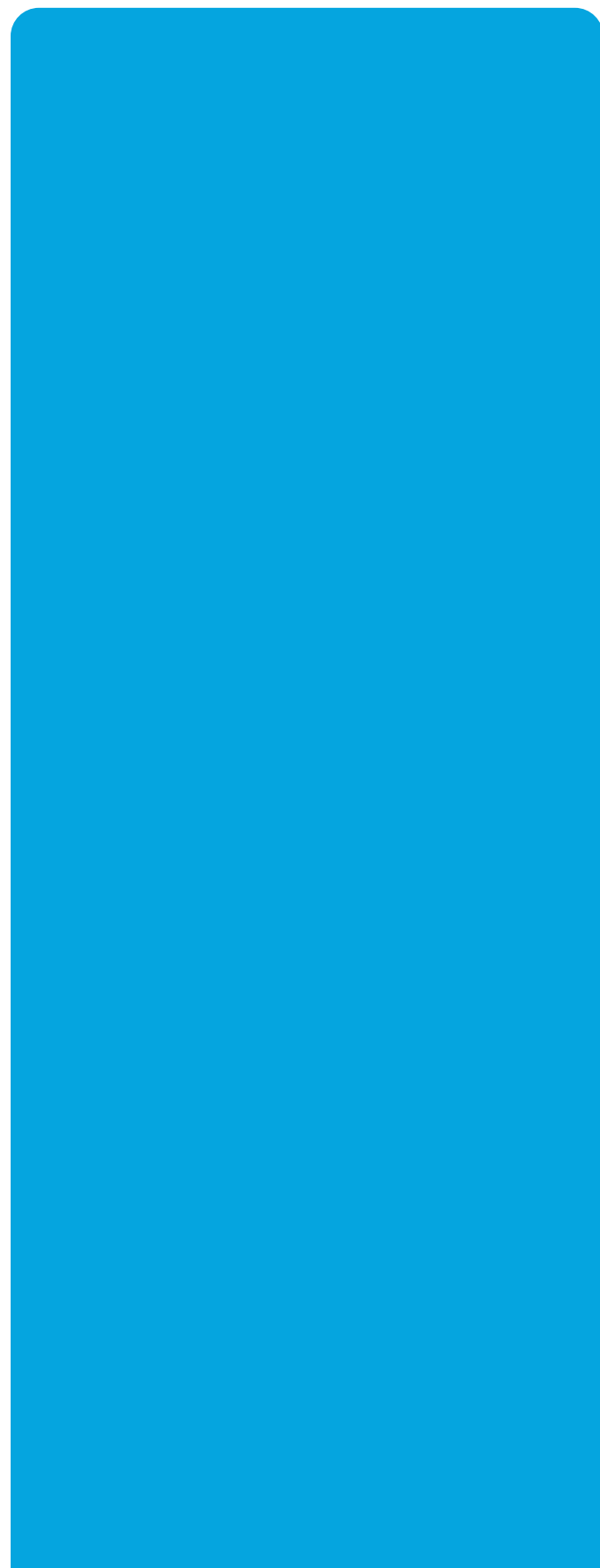
# Moving Modules List



# Managing Modules List



# Staying On Track Modules List

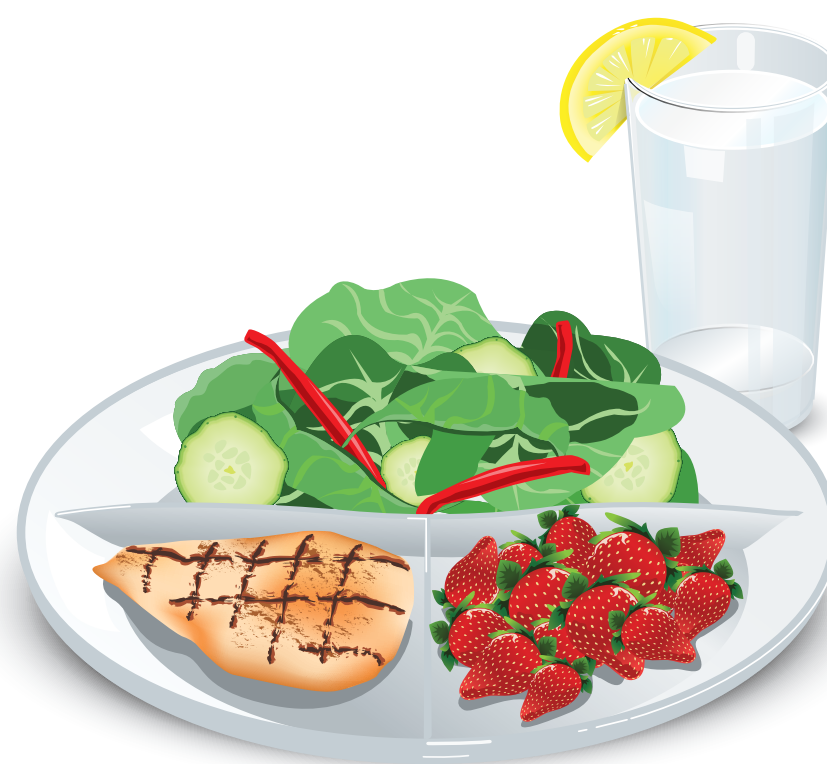


# Basic Carbohydrate Counting

Healthy eating is as much a part of managing your diabetes as taking your medicine. What you eat, when you eat, and how much you eat all play a role in managing your blood glucose (sugar) levels. For example, your body needs carbohydrates for energy, much like a car needs gas to run. Once eaten, carbs turn into sugar which can raise your blood glucose. Carbohydrate counting is important to managing your type 1 diabetes because of the big impact carbs can have on your blood glucose levels.

## Key Points

- Carbohydrates are found in plant foods (fruit, vegetables, grains, starches, beans, and sugar). Milk and yogurt, while not plant foods, also contain carbs.
- Carbohydrates come in 3 forms: starches, sugars, and fiber. All starches break down into sugars.
- Counting carbs, or keeping them in balance, is an important step for managing blood glucose. But counting carbs doesn't mean you can't eat the foods that you enjoy. It's all about meal planning.
- The Nutrition Facts label lists total grams of carbs per serving.
- The amount of carbs you need is dependent on factors including your weight, level of exercise, and the medicine that you take.



## What You Need to Know:

- Carbohydrate foods have the most impact or effect on blood glucose. Foods containing mostly protein and/or fat do not increase blood glucose as much as carbs.
- There are 3 main sources of carbs in foods:
  1. Starches, which are found in bread, pasta, rice, cereal, corn, crackers, and some vegetables.
  2. Sugars, which are found in fruit, fruit juices, milk, yogurt, and candies.
  3. Fiber, which is found in fruit, vegetables, whole grains, beans, peas, and nuts.
- Foods that do NOT contain carbs are just as important for you to know. Here are some examples:
  - Proteins, which include meat, poultry, fish, eggs, cheese, and tofu.
  - Fats, which include oil, margarine, butter, mayonnaise, avocado, nuts, and seeds.
  - Foods that are free of carbs include sugar-free gelatin and sugar-free gum.
- Non-starchy vegetables usually have less of an impact on blood glucose. Some of these include carrots, tomatoes, lettuce, green beans, and broccoli.
- Carbohydrates are measured in grams. One serving size (also known as 1 carb choice) contains 15 grams of carbohydrate. Here are some examples of 1 carb choice:
  - 8 ounces of skim milk
  - 1 slice of bread
  - 1 small apple
  - 1/3 cup of light ice cream
- The amount of insulin you take will be based on the amount of carbs you plan to eat. Learning to count them is important to keeping your blood glucose balanced.
- Your diabetes care team can advise you about how many carbs you need each day. This will depend on several different factors including your weight, level of activity, and the medicines that you're taking.

### Helpful Tip:

Look at the Nutrition Facts label on your favorite foods at home. The label lists the total grams of carbs for each serving. Make sure to look at the total grams of carbs and not just the amount of sugar in an item. This is a good way to become more familiar with carb counting.

### Myths vs Facts

**Myth:** If you have diabetes you should avoid all forms of sugar.

**Fact:** Sugary foods tend to be high in carbs (calories and fat, too), so the portion size is often very small. If you plan ahead and save them for a special treat, you should be fine.

**Nice work! You've finished reading through the information on this topic.**

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

**1 Action**  
I will find 3 foods at home that are sources of carbohydrates.

#### Why It Matters

The first step in counting carbs is learning which foods contain them.

**2 Action**  
I will use measuring cups for 1 meal this week to measure out my carb food portions.

#### Why It Matters

Once you know which foods contain carbs, the next step is knowing how many carbs they contain.

**3 Action**  
I will talk with a dietitian or my healthcare professional about how to balance my meal plan with my insulin.

#### Why It Matters

Each person should have their own unique food plan designed specifically for them. Take time to learn about how different foods affect your blood glucose and how much insulin you need to keep your blood glucose in target range.

# Reading a Nutrition Facts Label

▶ Reading a Nutrition Facts Label

Knowing how to read and understand a nutrition facts label is important—even if you don't have diabetes. These labels can help you keep track of carbs, fat, and sodium. They also give you information about the percent of your daily value of these things. Reading food labels can help you make healthy choices and better manage your diabetes.

## Key Points

- The serving size is the first thing to review on a food label. It is based on the typical portion of food that is usually eaten. All of the nutrition information on the label (such as calories and grams of carbs) is based on the serving size that is listed. Talk with your healthcare professional to best determine what is right for you.
- The amount of food you eat may be different from the serving size listed. Adjust the numbers on the food label in your calculations based on what you actually eat.
- For most people, looking at the “total carbohydrate” figure is the next most important number to review. Your food plan may be based on a certain amount of carbohydrates at each meal.
- Pay attention to how much fat your food choice contains. Keep saturated fats to no more than a single gram and trans fats to 0 grams per serving.
- Choose foods with at least 3 grams of fiber per serving. These choices can help you feel fuller and eat less.

Nutrition Facts	
8 servings per container	
<b>Serving size</b>	<b>1/2 cup (55 g)</b>
<b>Amount per serving</b>	
<b>Calories</b>	<b>230</b>
<b>% Daily Value*</b>	
<b>Total Fat</b> 8 g	<b>10%</b>
Saturated Fat 1 g	<b>5%</b>
Trans Fat 0 g	
<b>Cholesterol</b> 0 mg	<b>0%</b>
<b>Sodium</b> 160 mg	<b>7%</b>
<b>Total Carbohydrate</b> 37 g	<b>13%</b>
Dietary Fiber 4 g	<b>14%</b>
Total Sugars 12 g	
Includes 10 g Added Sugars	<b>20%</b>
<b>Protein</b> 3 g	
Vitamin D 2 mg	10%
Calcium 260 mg	20%
Iron 8 mg	45%
Potassium 235 mg	6%

\* 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.

## What You Need to Know:

There are 5 key areas when reading a nutrition facts label.

- ▶ **Serving size:** Remember that most packages contain more than 1 serving, so be mindful of how much you're choosing to eat and adjust your calculations accordingly.
- ▶ **Saturated fat:** This is the unhealthy type of fat, which may raise your bad cholesterol or what is referred to as LDL-cholesterol (low-density lipoprotein). This is different than HDL-cholesterol (high-density lipoprotein), which is considered good. Try to choose foods that contain no more than 1 gram of saturated fat per serving.
- ▶ **Trans fat:** This is another kind of unhealthy fat, which can also raise your bad cholesterol. For this reason, look for foods that contain “0 grams” of trans fat.
- ▶ **Sodium:** Just because a food doesn't taste salty doesn't mean it's low in sodium. Low-sodium foods have no more than 140 mg of sodium per serving. High-sodium foods include canned foods, luncheon meats, and processed foods.
- ▶ **Total carbohydrates:** This figure combines 2 kinds of carbs—dietary fiber and sugars. Carbs raise blood glucose more than protein or fat. It's important to look at the total amount of carbs in a serving and not just the amount of sugar. Soluble fiber has little effect on blood glucose but can help keep your digestive tract working smoothly. It can also help you feel fuller. Choose foods with at least 3 grams of fiber per serving. It's important to know that carbs raise blood glucose even more than protein or fat.

### Helpful Tip:

Pay close attention to the serving size listed on the label. It may be a lot smaller than the portion sizes you've been eating. Use measuring cups and spoons as well as food scales to check your servings from time to time.

### Myths vs Facts

- Myth:** The only benefit of eating foods that are high in fiber is for your digestion.
- Fact:** Fiber helps you feel fuller, which may help you eat less. It also has benefits to helping keep blood glucose and blood fats closer to the target range.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

- 1 Action**  
I will look at the food labels on at least 3 items in my cabinets or pantry and note the 5 important areas.

**Why It Matters**  
Checking labels may help you learn what to look for to make healthy decisions about what and how much to eat.
- 2 Action**  
Next time I'm at the grocery, I will compare labels on 2 similar food items. After noting the differences, I can then decide which is the better choice.

**Why It Matters**  
Comparing labels on similar products may help you learn to select healthier options.
- 3 Action**  
I will practice my measuring skills for one day this week, weighing and measuring out all my food portions.

**Why It Matters**  
Being aware of your portions will help you better manage how much you eat and have more accurate calculations of calories and of carbohydrates—which may affect blood glucose.



# Managing Blood Glucose Around Physical Activity

Being active—whether you’re playing sports, walking your dog, or simply taking a walk with a friend—can often lower your blood glucose. Sometimes, being active can cause your blood glucose to drop too low. In this module, we’ll learn how people with type 1 diabetes can enjoy being active while keeping their blood glucose at a safe level.

## Key Points

- Talk with your healthcare professional before starting any exercise program. They will be able to tell you how often to check your blood glucose so that you remain safe while adding activities to your life.
- Always keep snacks on hand in case your blood glucose drops too low.
- Check your blood glucose before and after being active.
- A good rule of thumb is to eat 15 grams of carbs for every 30 minutes of activity. Children may only require 5-15 grams of carbs, depending on their age and size. Be sure to discuss this with your child’s healthcare professional.

## What You Need to Know:

- Being active can cause your blood glucose level to drop. This can happen right after you exercise or play sports and even as long as 48 hours later. It is recommended that you exercise about 150 minutes each week. This can even be broken down to as little as 10 minutes twice a day, which may be more manageable for you.
- Always carry quick-acting carbs with you—juice, non-diet soda, sweets, or glucose tablets—so that you’re prepared for a low blood glucose event. Be sure to replace them after you’ve eaten them. Make sure that your support teams (friends, co-workers, and other helpers, such as a school nurse or sports coach) have extra snacks on hand if needed.
- The American Diabetes Association recommends that people with type 1 diabetes check their blood glucose before and after being active. Keeping your insulin dose balanced is important and can even be impacted by doing chores around the house.
- If you notice a big change in blood glucose after an activity, let your healthcare professional know so that you can make a plan for the future.
- For every 30 minutes of activity you do, eat a snack that contains 15 grams of carbohydrates. It is also suggested to have a snack if your blood glucose is below 100 mg/dL before activities or less than 90 mg/dL after activities.
  - Some snacks that contain 15 grams of carbs include:
    - 1 small piece of fruit
    - 4 ounces of fruit juice
    - 6 saltines
    - 1 mini box of raisins
    - 4 glucose tablets
- Sometimes being active can cause blood glucose to rise. This can happen for several reasons, including:
  - Your blood glucose may be too high before starting your activity
  - You may have eaten too much food before being active
  - Your diabetes medicine may need some adjusting
  - Too much adrenaline was released by being active or due to stress



## Helpful Tip:

Talk with your healthcare professional before starting any new activities. They will be able to advise you about when to check your blood glucose and when to eat in order to keep your blood glucose levels within a healthy range. It may also be suggested that you decrease your insulin dose on days you are more active.

## Myths vs Facts

**Myth:** All physical activities cause your blood glucose to drop.

**Fact:** Some do, but others may not. Check with your healthcare professional to ensure the right balance between physical activity and your insulin dose.

## Nice work! You’ve finished reading through the information on this topic.

Now you’re ready to act and start incorporating these new healthy habits into your life. This will help you practice what you’ve learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

**1 Action**  
Before participating in any sports or physical activities, I will have a plan for when and how often to check my or my child’s blood glucose.

### Why It Matters

The only way to help know how being active is affecting your diabetes or your child’s diabetes is to check blood glucose before and after being active.

**2 Action**  
I will choose a 15-gram carb to treat low blood glucose.

### Why It Matters

Thinking about treating low blood glucose ahead of time gets you one step closer to having treatment on hand when needed.

**3 Action**  
I will be sure to wear medical identification.

### Why It Matters

Medical identification (such as an ID bracelet) allows people to know that you—or your child—have type 1 diabetes and the kinds of medicines that are being taken. This is especially important if you or your child become disoriented or pass out while being active so that proper treatment is offered quickly.

# Fitting Injections into Your Daily Routine

Being prescribed an injectable medicine, such as insulin, may make some people uncomfortable, scared, and even wonder if they've done something wrong. Needing an injectable medicine is not your fault. It's just another way for your healthcare professional to help keep your blood glucose in target range.

## Key Points

- Your diabetes care team can give you tips for making injections easier, so don't be shy about reaching out.
- Letting your friends and family know that you need to take an injectable medicine to help manage your diabetes may help you feel less concerned about taking your medicine during social situations.

## What You Need to Know:

- There are things you can do to make giving yourself injections easier, such as:
  - Practicing on an "injection pillow"—a soft pad that's used just for this purpose. It's worth noting that the needles used with diabetes medications are small in comparison to traditional hypodermic needles.
  - Trying different injectable diabetes medicines, such as a vial and syringe, a pump, or a pen
  - Ask your diabetes care team about ways to make injections easier. For example, there are prefilled disposable pens that you may prefer.
- Talk with your friends and family about your need to take an injectable medicine to help manage your diabetes. This may help lessen your concerns about having to take your injectable medicine in a social situation, like during a family gathering.



### Helpful Tip:

Focus on the positive. Ask your healthcare professional or pharmacist about how your injectable medicine is going to help keep your blood glucose in target range.

### Myths vs Facts

**Myth:** Injections are always painful.

**Fact:** There are ways and options to make injections easier, which is why it's important to talk with your diabetes care team. They can give you some helpful tips.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

**1 Action**  
I will practice injecting into an injection pillow.

#### Why It Matters

Practicing with an injection pillow can help you learn how to give yourself an injection safely.

**2 Action**  
I will ask my diabetes care team for tips about making injections more routine.

#### Why It Matters

Reaching out to experts always makes sense. They have lots of experience and have learned all sorts of tips they'd be happy to share to make taking your medicine easier.

**3 Action**  
For the next week, I will focus on how taking my injectable medicine is helping me stay healthy.

#### Why It Matters

Thinking positively may help you stay on track. It may also help you look at your medicine as an important partner in caring for your health.

# Long-Acting Insulin

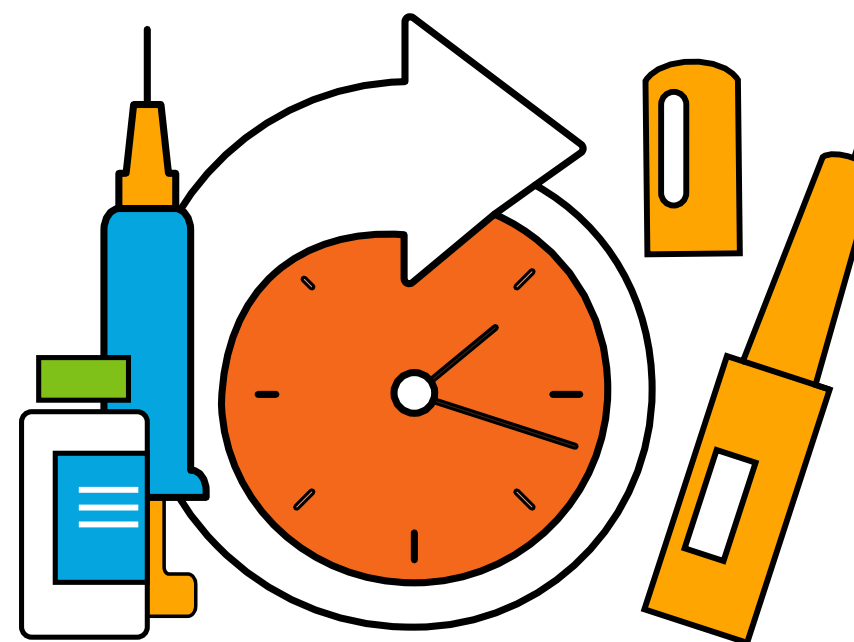
▶ Long-Acting Insulin

Long-acting insulin, also called background insulin, works to keep blood glucose in target range between meals and during the night. It reaches the bloodstream several hours after injection and tends to lower glucose levels for up to 24 hours.

There are several different kinds of long-acting insulins. It is important to know the specific kind you take and the facts about how it works. This module will help you learn about this important type of insulin.

## Key Points

There are two main types of insulin. One type acts slowly and is called “background” insulin or basal insulin because it works in the background throughout the day and night. The other kind of insulin is called mealtime insulin and is taken before eating.



## What You Need to Know:

- Background insulin is taken once or twice a day at the same time each day. It helps manage blood glucose levels between meals and during the night. It does not need to be taken with food.
- Some background insulin is “long-acting”—meaning it has a duration of action of up to 24 hours and it does not have a peak action time—or a time when it works the hardest. Another kind is called “intermediate-acting” and while it can work for up to 24 hours, it has a peak action time between 4 and 12 hours.
- Often, background insulin is taken with another diabetes medicine—either diabetes pills or a mealtime insulin.
- Premixed insulins are a combination of mealtime and background insulin.
- The recommended dose is different for each person. It is based on several factors including your weight and the level of sugar in your blood.

## Helpful Tip:

- It's common for your healthcare professional to adjust the dose of your insulin to meet your body's unique demands. This doesn't mean there is something wrong. It may just take some time to finely tune your dose to meet your personal needs.
- If using an intermediate-acting insulin (like NPH), a snack may be needed between the lunch and dinner meal to reduce the risk of low blood glucose.
- Long-acting insulin can come in prefilled insulin pens or it can be given using a syringe with a vial of insulin.
- Store opened or used pens or vials of insulin at room temperature, and unopened pens or vials in the refrigerator.
- Don't use insulin that is past its expiration date.

## Myths vs Facts

**Myth:** There is no risk for hypoglycemia (low blood glucose) with long-acting or background insulin.

**Fact:** Long-acting insulin can still lead to hypoglycemia, and the risk increases if taken with mealtime insulins or with certain diabetes pills (like sulfonylureas).

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

**1 Action**  
Discuss any problems you may have taking insulin (including fear, confusion, worry about side effects, remembering to take it or the cost) with my healthcare professional.

### Why It Matters

Learning strategies to help address these barriers can help make taking medicine easier and keep you healthier.

**2 Action**  
Monitor your blood glucose according to the recommended schedule.

### Why It Matters

The best way to know how a new insulin is working is to do home blood glucose monitoring. Monitor more often when starting a new medicine. If blood glucose is usually in target range, it is doing its job,

**3 Action**  
Rotate the sites where injections are given.

### Why It Matters

If injections are always given in the exact same spot, fatty lumps could develop making it harder for the insulin to be absorbed.

# Mealtime Insulin

If you have type 1 diabetes, you need to take insulin. About 50% of people with type 2 diabetes will eventually also need to take insulin. Needing to take insulin doesn't mean your diabetes is getting worse; it just means your pancreas isn't making enough of this blood glucose-lowering hormone. There are several different types of insulins.

In this module, we're going to learn about rapid-acting and short-acting insulins. Rapid-acting insulin acts quickly (in 10 to 30 minutes). It peaks in about 1 to 2 hours after injection and lasts between 2 and 4 hours. Short-acting insulin usually reaches the bloodstream within 30 minutes after injection, peaks between 2 and 3 hours after injection and lasts for around 3 to 6 hours.

## Key Points

- Rapid-acting insulin works as quickly as 10 minutes. Short-acting insulin works as quickly as 30 minutes.
- You inject rapid-acting insulin up to 15 minutes before a meal, or short-acting insulin 30 minutes before a meal, which is why they're often called "mealtime insulins."
- Rapid-acting and short-acting insulin work by replacing what your body makes—or should make—naturally.

## What You Need to Know

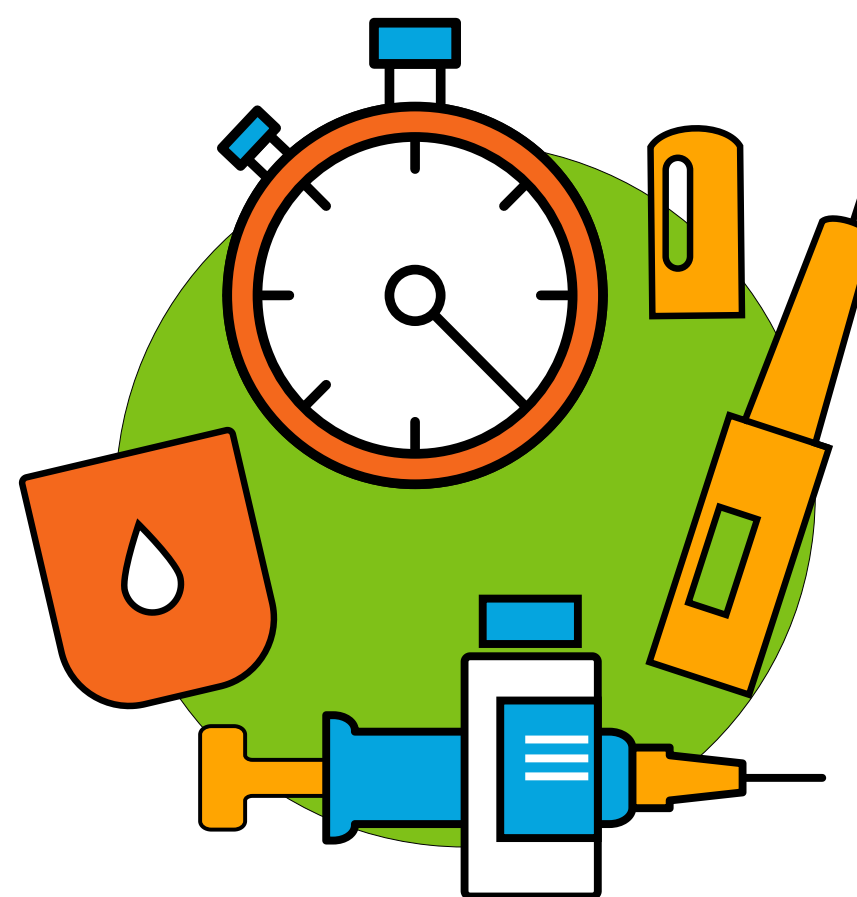
- Rapid-acting insulin starts to drop your blood glucose level in as soon as 10 minutes, but if your blood glucose is high, you may want to wait longer before eating.
- Rapid-acting insulin is often called, "mealtime insulin" because you take it up to 15 minutes before meals, during, or slightly after a meal.
- Rapid-acting insulin helps manage blood glucose levels after you eat a meal or a snack.
- You may hear your healthcare professional refer to "peak time." This is when the insulin is working its hardest to lower your blood glucose.

### Helpful Tip:

You may need to take a long-acting insulin along with the mealtime insulin your healthcare professional has prescribed. A long-acting insulin helps control your blood glucose levels between meals and during the night and is taken 1 to 2 times a day.

### Myths vs Facts

- Myth:** If you need to take insulin, it means you've done something wrong managing your diabetes.
- Fact:** Needing to take insulin doesn't mean you've done something wrong. It just means your body needs extra help in managing your blood glucose levels.



▶ Mealtime Insulin

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

**1 Action**  
I will make sure to take my rapid-acting insulin up to 15 minutes before a meal or as directed by my healthcare professional.

### Why It Matters

While rapid-acting insulin starts to work as soon as 10 minutes, if your blood glucose is high, you may want to wait a little longer to eat after injecting.

**2 Action**  
I will not blame myself for needing to take insulin as it doesn't mean I did anything wrong.

### Why It Matters

Needing to take insulin simply means your body needs a little extra help managing your blood glucose levels for good health. It doesn't mean you failed or did anything wrong.

**3 Action**  
I will talk with my healthcare professional to see if a mealtime insulin is right for me.

### Why It Matters

Your healthcare professional can best determine if a particular type of medicine is right for you.

# Technology and Managing Diabetes

There are all sorts of technologies that help make managing your diabetes easier than ever before. In this module, you'll learn about all the options that are available so you can determine which, if any, work best for you. As always, if you have any questions and want to know if a certain device will fit your needs, talk with your diabetes care team.

## Key Points

Diabetes technology and devices can provide many benefits to certain people. However, not everyone would benefit from using these tools. Sometimes they are covered by insurance and sometimes, they are not. Sometimes technology can make living with diabetes easier and improve overall diabetes management, but sometimes it will not. Learn what might be right for you and if it is worth the cost.

## What You Need to Know:

- **Continuous Glucose Monitoring (CGM)** uses a tiny sensor that is inserted under your skin on your stomach or arm to measure the glucose found in the fluid between your cells. Every few minutes, the sensor monitors your glucose and transmits the results to a monitor.
  - Some CGM devices send the information to another device, such as a reader, or to an app on your smartphone or other device. CGM devices can also be a part of an insulin pump.
  - CGM tracks your blood glucose levels all day and night, and lets you view them any time. You can track your blood glucose changes over a few hours or days to see trends that allow you to better balance your food, physical activity, and medicine.
- **Connected insulin pens, also known as smart insulin pens**, combine a reusable injector pen with a smartphone app to help you better manage your insulin delivery. In addition to calculating and tracking your insulin dose, the app provides reminders, alerts, and reports. There are a few pens to choose from. Talk to your healthcare professional about what would best meet your needs.
- **Insulin Pumps** are insulin-delivering devices that are roughly the size of a deck of cards. They can be worn on the skin or a belt or kept in a pocket. They connect to narrow, flexible plastic tubing that ends with a needle that is inserted just under the skin. You set the pump to give you a steady amount of insulin continuously throughout the day. Pumps release several units of insulin at a time at meals and at times when blood glucose is too high. This is based on the programming done by the user.
- **Artificial Pancreas Device System** uses a continuous glucose monitor (CGM), an insulin infusion pump, and a program stored on the pump or a smartphone. It is sometimes referred to as a "closed-loop" system or "automated insulin delivery" system.
  - There are several different types of Artificial Pancreas Device Systems. These systems mimic the way a healthy pancreas would regulate blood glucose levels.
  - An Artificial Pancreas Device System does more than just monitor your blood glucose levels, it also automatically adjusts how much insulin is delivered with little or no input from you. For more information, discuss with your healthcare professional as some of these systems are still being researched.



▶ Technology and Managing Diabetes

## Helpful Tip:

With so many options to choose from, make time to talk with your diabetes care team about which option(s) might be best for you.

## Myths vs Facts

**Myth:** If I start with insulin injections, I have to stay with insulin injections.

**Fact:** If you don't like injections, talk with your healthcare professional about switching to an insulin pump. It might make it easier for you to manage your diabetes.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

**1 Action**  
I will talk with my diabetes care team about the new technologies to help manage my diabetes.

**Why It Matters**  
Your diabetes care team can help you decide which of the new technologies might be better suited to your individual needs.

**2 Action**  
If I switch to a new technology, I will continue to monitor and record my blood glucose levels.

**Why It Matters**  
Monitoring your blood glucose levels helps you and your healthcare professional decide if your diabetes medicine, insulin, or any lifestyle changes need to be made.

**3 Action**  
If I switch to a continuous glucose monitor, I will still keep a traditional meter handy as a backup or if my readings seem off.

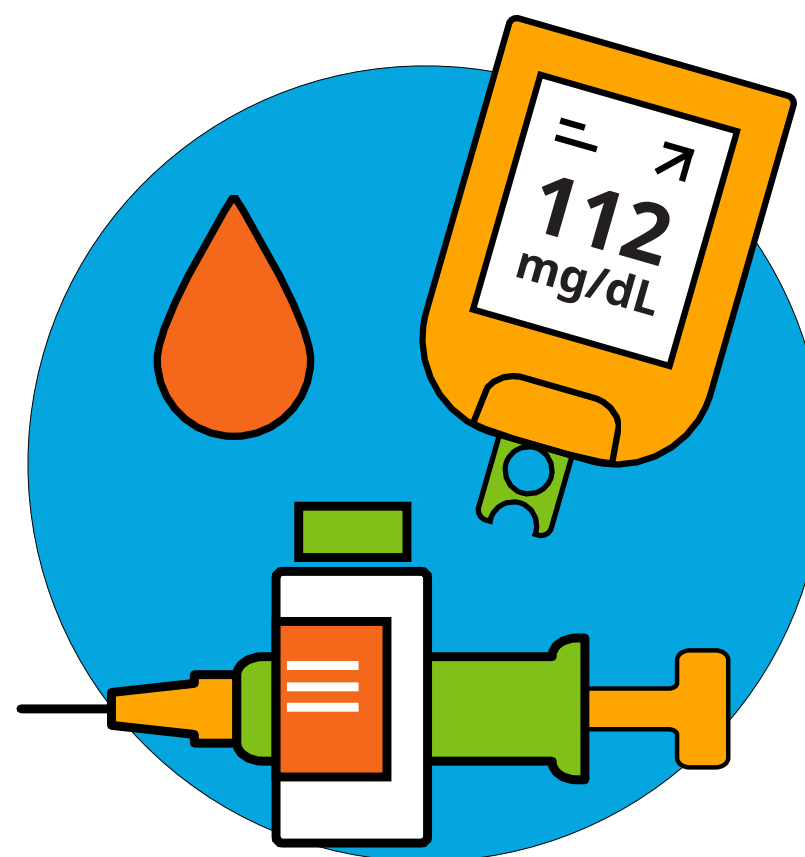
**Why It Matters**  
If how you feel doesn't match the blood glucose reading on your CGM, having a backup meter is always a good idea.

# Beyond the Basics of Type 1 Diabetes

The more you know about type 1 diabetes, the more it can be managed. As you have probably already learned, the more you know about your condition—any condition—the more empowered and in charge you feel. In this topic, you and your caregiver will learn some of the basics of type 1 diabetes and its management. As always, you're encouraged to reach out to your diabetes care team with any questions you may have.

## Key Points

- Living with type 1 diabetes presents different challenges at different stages in life. They all can be better managed by talking with your diabetes care team. These experts can provide you with all sorts of helpful tips for you, your child, or family member living with type 1 diabetes.
- No matter where you are—at home, work, or at school, it helps to be prepared. Having your tools on hand (monitors and medicine supplies) and snacks or glucose tablets ready for low blood glucose episodes is important.
- Remember: you are not alone. About 64,000 people (ages 0-64 years) are diagnosed with type 1 diabetes each year in the United States.



## What You Need to Know:

- During the period of 2001-2015, about 64,000 people ages 0-64 years in the United States were diagnosed with type 1 diabetes each year. It is very common in children and adolescents but may affect people of any age. It may make you feel more comfortable knowing that you are not alone.
- Managing diabetes will become a part of your daily routine if it hasn't already. You need to monitor your blood glucose and take your insulin every day. It is recommended that most people with type 1 diabetes use an insulin pump and a continuous glucose monitor (CGM) for the most advanced treatment methods.
- Healthy eating is as much a part of your diabetes care as taking medicine. It's important to understand that food affects you and your body a little differently than it affects people who don't have diabetes. Packing a lunch to take to school or work might be a helpful way to stay on track.
- Carrying around these supplies in a backpack or keeping extras in the office or at school may be helpful.
  - Snacks, glucose tablets, or fruit juice for low blood glucose
  - Back-up supplies for blood glucose monitoring or taking medicines (whether it is for the pump, CGM, meter or insulin injection supplies).
  - And don't forget to wear a medical ID necklace, bracelet, smart watch sleeve, or ankle bracelet
- Gatherings at another home, such as a dinner party or a sleepover can present particular challenges. If you're the caregiver, reach out to the host. If you are checking for your child, advise them on meal requirements, insulin injections, and what to do in case of a low blood glucose event. Reach out to your diabetes care team for suggestions.
- If you're the caregiver for a teenager or young adult, be sure to keep the lines of communication open. Find out about the pressures they may be facing. In time, you can help come up with solutions, but simply listening is a great first step.
- Dating with diabetes is another subject to discuss and prepare for with your young adult child. There's no one-size-fits-all solution, but here are some ideas that may help:
  - If their date knows that they're going to be dining with someone who has diabetes, it may be easier to stick with a healthy meal plan.
  - Talk with your diabetes care team about having a plan to deal with low blood glucose, monitoring blood glucose, or taking an injection while on a date.
  - Checking blood glucose before going out and having emergency snacks or glucose tablets on hand are also important.
  - If the person with diabetes is of drinking age, remind them that alcohol can quickly affect blood glucose. This can leave them at risk for low or high blood glucose. Many people with type 1 diabetes choose to avoid alcohol entirely for this reason.
- Finding healthy ways to manage stress is another important part of diabetes self-management. Discuss coping strategies with your son or daughter so that they feel prepared.
- If you're managing a career along with type 1 diabetes, you should feel comfortable asking your employer for special accommodations if you need them. Breaks to check blood glucose levels, eat a snack, take medicine, or rest until blood glucose levels become normal are reasonable according to the American Diabetes Association. The same is true for being able to keep your diabetes supplies and food nearby, having a private area in which to test your blood glucose, or take your insulin are also reasonable.

### Helpful Tip:

Communication is the key to handling most difficulties that we face. If you're the caregiver of someone with type 1 diabetes, be sure to listen to their concerns. You may not have all the answers, but knowing that they have you on their side to help find solutions may be enough of a comfort.

### Myths vs Facts

**Myth:** Growing up with type 1 diabetes means I'm going to miss out on having a normal childhood.

**Fact:** Not at all! Participating in the same activities as others might just take a little extra preparation and listening to your body. Talk with your healthcare professional about any questions you may have.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

### 1 Action

This week, I will pack a healthy lunch for me or my child.

#### Why It Matters

Eating the right foods and the right portions of foods is as important as taking your medicine. It can help keep your blood glucose numbers in target.

### 2 Action

I will keep my family up to date with how I am managing my blood glucose and suggest ways they can help.

#### Why It Matters

The more your family knows, the more they can help.

### 3 Action

I will identify a place at work or school where I feel comfortable checking my blood glucose and taking my insulin.

#### Why It Matters

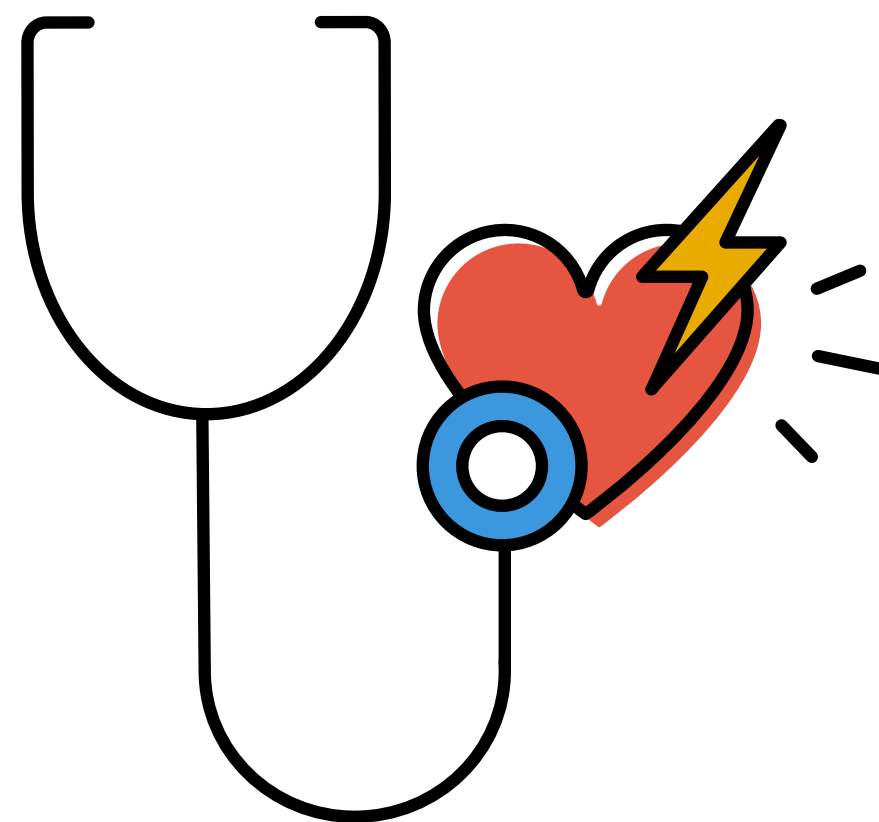
Finding a comfortable place to care for your diabetes will help you keep on track.

# Cardiovascular Risk and Protection

People with diabetes need to take extra care to manage their risk for heart disease compared to those who don't have diabetes. That's because people with diabetes are twice as likely to have a heart attack or stroke as those who don't have diabetes. In this module you'll learn ways to make protecting your heart a part of your everyday life.

## Key Points

- Diabetes puts you at an increased risk for a heart attack or stroke.
- Eating healthy, staying physically active, and managing your ABC's (A1C, blood pressure, and cholesterol) can reduce your risk of heart disease and stroke.
- Several diabetes medicines have been shown to be beneficial in reducing risks for heart disease.
- Regular checkups are a smart way to care for your heart. This typically includes having your A1C checked, a thorough eye exam, a foot exam, and making sure that your cholesterol levels and blood pressure are where they should be for you.



## What You Need to Know:

- Having diabetes puts you at increased risk for having a heart attack or stroke. That's because high blood glucose levels over time can damage your blood vessels and nerves. Plus, many people with diabetes also have high blood pressure, high cholesterol, and are overweight—3 things that increase your chances of getting heart disease.
- Your risk of heart disease and stroke is higher the longer you live with diabetes.
- There are many things you can do to decrease your risk of heart disease, including: eating less saturated fat and more high-fiber foods, such as fruits and vegetables, being physically active on a regular basis, and keeping your A1C in target range.
- Managing blood pressure is very important to reduce your risk of heart disease. For most, it means keeping blood pressure below 130/80 mmHg. For some who are at higher risk, the goals may be lower.
- Talk with your healthcare professional and schedule regular checkups. This can help you manage your blood glucose levels and also lower your risk of heart disease.
- Here are some other ways to care for your heart:
  - **Every 3 to 6 months** have your A1C and blood pressure checked by your healthcare professional.
  - **Once a year**, have the following blood tests: triglycerides and cholesterol (especially HDL and LDL) to check the health of your blood vessels and creatinine to check kidney function. In addition, have a thorough eye exam, which includes getting your eyes dilated so your doctor can see your optic nerve. You should also have a complete foot exam and get a flu shot and other recommended vaccines.

### Helpful Tip:

Managing your weight is very important. In fact, for people with overweight or obesity, losing about 5-7% of your body weight can help. If you need help learning how to eat healthy portions, check out the Diabetes Plate Method module for details.

### Myths vs Facts

- Myth:** If I have diabetes, there is nothing I can do to manage my risk for heart attack or stroke.
- Fact:** You can do many things to reduce your risk, including eating healthy foods, maintaining a healthy weight, exercising regularly, and taking your diabetes medicine(s) as prescribed.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

**1 Action**  
I will follow the recommendations for healthy eating and monitor my food portions to maintain a healthy weight.

#### Why It Matters

Managing your weight can help you better manage your blood glucose levels and your heart health.

**2 Action**  
I will talk with my healthcare professional about having routine checkups to reduce my risk of heart disease.

#### Why It Matters

Routine checkups can help alert your healthcare professional to changes in your blood glucose, cholesterol, weight, and other important factors that can impact your heart health.

**3 Action**  
I will be sure to schedule annual eye and foot exams.

#### Why It Matters

Your eyes and feet can be affected by diabetes, which is why it is so important to have them checked by a healthcare professional at least once a year.

# Changing Behavior

Now that you're living with diabetes, chances are your diabetes care team has recommended that you change a few of your behaviors. You were probably told to become more active. Learning how to check your blood glucose, take medicines, or measure foods are other changes in behavior healthcare professionals often recommend.

Changing your behavior, even slightly, has the ability to change the course of your diabetes for the better. Even small changes can provide you with positive health benefits. Let's explore what some changes might be and how they may help.

## Key Points

- Changing or starting new behaviors isn't always easy, but with the right support—you can do it!
- Consider how these changes—even the small ones—may make a big difference in your health to help keep you motivated.
- Plan ahead and prepare for situations that can get in your way of changing your behavior by thinking of ways to overcome them.

## What You Need to Know:

- Changing behaviors may be a challenge. This is why it is often a good first step to think about some of the changes you need to make and how they can help.
- Breaking down the behavior you want to change into smaller steps will make it easier. Be as specific and realistic as possible. Instead of thinking about something broad and vague such as exercising more, break it down into each of the steps you might need to take to get to where you want to be, such as: I will get new sneakers or I will walk for 10 minutes today.
- Situations like holiday dinners or overnight trips might make it trickier to follow your meal plan. Making a plan that includes tips for handling things in advance is often helpful.
- Reach out to your family, friends, and diabetes care team for support. They can help motivate you and encourage healthy changes.
- Plan ahead and think about the things that trip you up and how you can either avoid or overcome them.



▶ Changing Behavior

### Helpful Tip:

Focus on the benefits of changing unhealthy behaviors. When you see the benefits, you may see fewer obstacles. Don't try to change too many behaviors at once. That can be overwhelming and set you up for failure. You may even want your family members to join you as everyone can benefit from these healthy changes. Make a list of the behaviors you need and want to change, and try to tackle one each week.

### Myths vs Facts

- Myth:** Knowing that you need to make healthy changes should be enough to get you started.
- Fact:** Not true. It helps if you first understand how these changes can help improve your health. Seeing the big picture can be very motivating. Then, think of ways to make these changes doable.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

**1 Action**  
I will pick 1 health change that I can try today.

#### Why It Matters

Starting slow may increase your chances of success.

**2 Action**  
I will identify 1 situation that gets in the way of my diabetes care.

#### Why It Matters

Anticipating or avoiding obstacles that get in the way of keeping you on track can help you be better prepared for them.

**3 Action**  
I will tell the people on my diabetes care team what I need from them.

#### Why It Matters

The more support you can get in managing your diabetes, the easier it may be to manage it.



# Checking Blood Glucose and A1C

An important part of caring for your diabetes is checking your blood sugar (or blood glucose). Glucose, which is the main sugar found in your blood, comes directly from the foods that you eat and is your body's energy source. It is also important to know the results of your A1C blood test. Your A1C test results can give you a picture of where your blood glucose levels—on average—have been over the past 2 to 3 months.

Keeping track of both your blood glucose and A1C is called, "monitoring." Monitoring is key because it gives you the information you need to know where your blood glucose levels are and where they might be headed. It is a good indicator for how the diabetes treatment plan is working. It's like a GPS for your diabetes management. This information will help guide you and your diabetes care team to better customize your diabetes care plan.

## Key Points

- Monitoring your blood glucose—at home with a meter and at the office of your healthcare professional to check your A1C—is an important part of managing your diabetes.
- Blood glucose can also be monitored with a device called a continuous glucose monitor (CGM) that tracks blood glucose levels all day and night. It works with a tiny sensor put under the skin usually on your belly or arm.
- Your blood glucose levels provide important information to your diabetes care team that may require adjustments to your current care plan.
- Studies show that keeping your A1C below 7% may reduce your risk of some diabetes-related concerns, such as eye, kidney, or nerve problems.

## What You Need to Know:

- You may feel fine even when your blood glucose levels are above target. This is why monitoring your blood glucose is so important.
- There are 2 ways to monitor your blood glucose:
  - Having an A1C blood test at your healthcare professional's office
    - These results tell you an average of how your blood glucose levels have been during the past 2 to 3 months.
  - Checking your blood glucose at home using a meter or continuous glucose monitor (CGM) on a daily basis. A CGM tells you the amount of time your blood glucose is within the target range set by your diabetes care team. Since everyone is different, your healthcare professional may specify that you check before or after meals.
    - Be sure to keep track of your blood glucose results and share them with your healthcare professional at your visits. The patterns of highs and lows can help guide any changes in your medicine that need to be made.
    - Ask your healthcare professional to recommend a meter or CGM that is covered by your health plan. This may save you money on test strips and lancets.
- Your diabetes care team will use your blood glucose results to make any changes to your care plan, including your medicines, eating plan, and physical activities.
- For most people, when you wake up and before meals, your blood glucose levels should be between 80 mg/dL and 130 mg/dL. One to 2 hours after meals, your levels should be less than 180 mg/dL. Your recommended targets may be different.
- Keeping your A1C levels below 7% has been shown to help reduce your risk of some common diabetes-related problems (eye, nerve, or kidney problems). It can also impact your cardiovascular system, foot health, and even your dental health.

### Helpful Tip:

Ask your healthcare professional what your target blood glucose and A1C numbers should be. This may help you stay on track.

### Myths vs Facts

**Myth:** Having high blood glucose levels is bad.

**Fact:** Your blood glucose levels aren't good or bad. They simply provide information about how well your diabetes care plan is working. Most people will have blood glucose that falls above or below range some of the time. The goal is to increase the amount of time it falls within the goal range.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

### 1 Action

At my next visit, I will ask my healthcare professional what my target blood glucose range should be.

#### Why It Matters

Knowing your blood glucose targets may help you know if you need to make changes to your diabetes care plan.

### 2 Action

I will ask my health insurance company what their "preferred" meter or CGM is.

#### Why It Matters

Using a meter that is covered by your insurance may help you save money on testing supplies.

### 3 Action

Every day this week, I will check and log my blood glucose levels as often as my healthcare professional recommends.

#### Why It Matters

Checking your blood glucose levels lets you know how well your diabetes is being managed.



▶ Checking Blood Glucose and A1C

# Coping with Stress

Most people have stress in their lives. The challenges that you and your family face living with diabetes can add to that stress. This stress can sometimes lead to depression, which is something that people with diabetes may be at higher risk for developing.

Additionally, coping with the unique stress that COVID-19 brings (such as isolation and added concerns about one's health) can add to these stress levels. Fortunately, there are things you can do to better handle how you cope. This topic will educate you about how stress affects your health and offer tips for managing it better.

## Key Points

- Stress can elevate your blood glucose levels. Sometimes, it can lower it and result in low blood glucose—if you're too stressed to eat than skip a meal.
- Find ways to cope with stress, whether it be leaning on your network of supportive family and friends, going for a walk, doing yoga, or reading a relaxing book.
- It's worth noting some of the common symptoms of depression, which include loss of interest or pleasure in doing things you typically enjoy, trouble sleeping or sleeping more than usual, and eating more or less than usual. If you have any of these symptoms or notice them in a friend or family member, talk with your healthcare professional. There are numerous things one can do to help cope with depression and you are not alone.

## What You Need to Know:

- Stress may directly affect your blood glucose levels. It can either raise or lower blood glucose levels. Here's why:
  - When you're in a stressful situation—maybe an argument with a friend—stress hormones, such as adrenaline, are released. This causes blood glucose levels to rise.
- Feeling isolated or "different" because of your diabetes can be stressful, too. Sometimes, this type of stress may make you want to skip a meal, but don't. A skipped meal could lead to low blood glucose.
- The day-to-day management of diabetes can add to your stress. Remembering to take your medicine(s), checking your blood glucose levels, eating healthy, and being active can add up. Predicting obstacles and planning ahead can help you feel like you are better able to manage things.
- Find healthy ways to cope with stress, such as deep breathing, meditation, or even taking a long walk with a friend.
- Check blood glucose more often when you are feeling stressed and see how it affects you.



▶ Coping with Stress

## Helpful Tip:

Getting support from your friends, family, an online support group, or your diabetes care team can help you cope with stress. There may be times when it is helpful to talk with a mental health professional, especially if you're experiencing signs of depression. Ask your healthcare professional for a referral if you need one and remember that you are not alone. Your mental health is as important as your physical health.

## Myths vs Facts

**Myth:** If I were stronger, I would be able to handle stress better.

**Fact:** The only kind of strength that helps with the management of stress is a strong support system. Don't forget to reach out to family, friends, or your diabetes care group for help in managing stress.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

**1 Action**  
I will identify what life stresses make it harder for me to manage my diabetes.

### Why It Matters

Being aware of how life gets in the way may help you prepare for it and possibly even change it.

**2 Action**  
For the next week, I will focus on how to make the hardest part of managing diabetes easier.

### Why It Matters

You can reduce stress by talking with your diabetes care team or others in your support system. They may be able to help you find ways to change the way you look at stressful situations or change the environment that's causing stress.

**3 Action**  
This week, I will try 1 strategy to help manage stress—taking a walk, spending time with friends, watching a movie.

### Why It Matters

Stress is a fact of life. Having tools to help manage stress may help.

# Highs and Lows

Understanding what causes high and low blood glucose is an important part of taking care of type 1 diabetes. In this topic, we'll learn the causes of high and low blood glucose, how to recognize and treat its symptoms, and how to look for patterns. It's important to keep your numbers within the range your care team has set for you.

## Key Points

- Knowing your target range for your blood glucose is important, so be sure to ask your healthcare professional.
- Keep track of your blood glucose levels and see if there are patterns. Were you more active when your blood glucose levels changed? Were you sick or stressed? All these things can impact your blood glucose levels. Share your tracker with your healthcare professional at your next visit.
- Having snacks available if your blood glucose drops is an important part of self-care. Be sure to let your family, friends, and co-workers know the symptoms of low blood glucose and where the snacks to help treat this are located.



► Highs and Lows

## What You Need to Know:

- Your blood glucose numbers provide important information about how well your diabetes treatment plan is working. Your diabetes care team will use this information to determine if your care plan is working or if it needs to be changed.
- Everyone's blood glucose goals are different and are determined by your healthcare professional. However, for most non-pregnant people with type 1 diabetes, the blood glucose targets are:
  - 80 mg/dL to 130 mg/dL when you wake up and before eating or drinking. This is often called fasting plasma glucose or FPG.
  - Less than 180 mg/dL is the typical target 1 to 2 hours after eating or drinking. This is often called postprandial glucose or PPG.
- Low blood glucose is below 70 mg/dL at any time.
- Common symptoms of **low** blood glucose are feeling shaky, dizzy, sweaty, hungry, angry or irritable, having a headache or difficulty concentrating, and being confused.
  - Tips for managing low blood glucose:
    - Have a snack that includes 15 grams of carbs, such as ½ cup of regular fruit juice or regular soda, 4 glucose tablets, and candies that can be quickly chewed, such as 7 gummies.
    - Keep these snacks handy in your car, office desk, and nightstand. Let your family, friends, and co-workers know how to recognize the signs and symptoms of low blood glucose and what to give you if you are low.
    - Fifteen minutes after having a snack, check your blood glucose again. If your blood glucose is still low, have another small snack. Once your blood glucose returns to target range, have a meal to help keep your blood glucose from becoming low again.
- Common symptoms of **high** blood glucose are increased thirst, increased urination, dry mouth or dry skin, tiredness or fatigue, blurred vision, more frequent infections, such as yeast or urinary tract infections, slow-healing cuts and sores, or unexpected weight loss.
  - Tips for managing high blood glucose:
    - If you have signs of high blood glucose, be sure to check more often and take your insulin as recommended. The non-insulin medications that you take can also have an impact on your blood glucose. As always, ask your diabetes care team if you have any questions.
    - Be sure to check your blood glucose before, after, and while playing sports or other activities as adrenaline may cause your sugar levels to rise.
- Keep track of your blood glucose levels and try to determine the cause of your highs and lows. Use one of the many apps to keep track of your numbers or [keep a written record](#). Bring this information to your next office visit to discuss with your healthcare professional.

### Helpful Tip:

If you or your loved one is experiencing any of the symptoms described above, check your blood glucose. It may mean that it's too high or too low. Then, follow the suggestions for managing your blood glucose.

### Myths vs Facts

**Myth:** There's nothing I can do about high or low blood glucose.

**Fact:** There are many things you can do to remedy blood glucose levels that are out of your target range. Follow the tips we described above and talk with your diabetes care team for additional tips.

Links to: <https://diabeteseducation.novocare.com/content/dam/diabetes-patient/novocare-diabeteseducation/pdfs/booklet-blood-glucose-tracker.pdf>

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

**1 Action**  
I will work with my diabetes care team to identify my blood glucose goals.

#### Why It Matters

Blood glucose goals vary from person to person. Knowing what yours are is important, so be sure to have this conversation with your diabetes care team.

**2 Action**  
I will keep track of my blood glucose levels so that I can look for patterns and share them with my diabetes care team.

#### Why It Matters

Recording your blood glucose numbers may help you become more aware of patterns. Try to determine what causes your highs and lows and discuss this with your diabetes care team.

**3 Action**  
I will call my healthcare professional to let them know if my blood glucose goes below 70 mg/dL.

#### Why It Matters

Even 1 low reading may require a change in your medicine. This is why it's important to discuss this with your healthcare professional.

# Identifying Your Goals and Motivation

Your diabetes is different from anyone else's diabetes. You have your own reasons for staying motivated and following your diabetes care plan. You also have your own goals. Once you're clear about what your goals and motivations are, it's easier to identify the action steps to achieve those goals, take charge and better manage living with diabetes. Be sure to ask your family and friends for their support. This can make things much easier for you.

## Key Points

- Know your goals. These are the big-picture reasons why striving for better health is important to you.
- Identify specific action steps you can take that will help you reach your goals. Be as specific and realistic as possible.
- Understanding what motivates you can actually help you stay motivated. Jot down some of your motivations for following your diabetes care plan. You may want to put this list somewhere visible to help keep you on track.
- Think about the obstacles you face and make a plan for handling each one. Feeling prepared can be very empowering.



▶ Identifying Your Goals and Motivation

## What You Need to Know:

Here are some tips for getting and keeping you motivated:

- Everyone is motivated by different things. Here are a few goals that might also work for you:
  - I want to be healthy so that I can be there for my family.
  - I know someone who had problems as a result of not taking care of their diabetes. I don't want that to happen to me.
  - I want to feel better and have more energy.
- Think about writing down your main motivations and putting them someplace where you'll see them every day.

Here are a few tips for setting your diabetes care action steps:

- Start by talking with your healthcare professional and partner with them to set specific and realistic things you can do.
- Make your action steps specific. For example, "I will check my blood glucose first thing every morning."
- Set action steps that are realistic. If you find it difficult to be active once a week, it may be unrealistic to think you can be active every day. Start with small steps and add to them little by little. Be sure to take the time to celebrate your accomplishments. This can help you stay motivated.

### Helpful Tip:

Write down your goals *and* your motivations. Use a magnet to place them on your refrigerator. This can help ensure that you see it every day—a few times each day!

### Myths vs Facts

**Myth:** I have a reason to feel motivated today and will use it to stay motivated in the future, too.

**Fact:** Just as your diabetes treatment goals may change with time, the same is true for your reasons to stay motivated. Review and update your goals from time to time.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

**1 Action**  
I will write down my number 1 goal or motivation for making healthy changes.

#### Why It Matters

You may be more likely to succeed if you figure out what motivates you. Remind yourself of this motivation when things get tough.

**2 Action**  
For the next week, I will set a realistic action step I can manage to add to my exercise routine.

#### Why It Matters

Physical activity and exercise help your body become more sensitive to your own insulin and use it more effectively. Before starting any exercise plan, be sure to talk with your healthcare professional first.

**3 Action**  
I will reward myself for sticking to my action steps and achieving them this week.

#### Why It Matters

Learning how to stick to your action steps will teach you what may help you maintain healthy changes long term and reach your goals.

# Knowing Numbers

As you may already know, people with type 1 diabetes need to know their numbers to better understand how well their condition is being managed. It also helps to understand the many terms your diabetes care team will be using when they discuss your diabetes treatment plan with you. This learning module will help you do just that. The more you know, the better you can partner with your diabetes care team to keep your numbers in their target range.

## Key Points

- There are various blood tests your healthcare professional will want to do in order to learn how well your blood glucose is being managed, what your blood glucose levels are when you wake up, and how it differs 1 to 2 hours after you eat or drink.
- Checking to see how well your kidneys are functioning and determining the health of your eyes are also important.
- Your healthcare professional will determine how often these tests are needed for you or your child.

## What You Need to Know:

- **A1C** measures how well your blood glucose levels have been controlled over the past 2 to 3 months. It is measured by a blood test that is done 2 to 4 times a year. For most people, keeping your A1C less than 7% is the goal. Your healthcare professional will tell you what is best for you or your loved one.
- **Fasting Plasma Glucose (FPG)** is the measurement of your blood glucose levels when fasting for at least 8 hours, like when you first wake up in the morning. For most people, the FPG goal is between 80 mg/dL and 130 mg/dL. Your healthcare professional may set different goals for you.
- **Postprandial Glucose (PPG)** is the measurement of your blood glucose levels 1 to 2 hours after you eat or drink. It is often measured several times a day but may vary as your healthcare professional recommends. For most people, the PPG goal is less than 180 mg/dL.
- **Time in Range (TIR)** is the percent of time blood glucose falls within a range (usually between 70 and 180 mg/dL). For most people, the goal is to have their TIR be at least 70%.
- **Ketone test** measures the presence of ketones found in the urine or blood. Ketones are acids that can build up when the body doesn't have enough insulin to move blood glucose into your cells. Whenever your blood glucose goes above 250 mg/dL twice in a row, your doctor may recommend your ketone levels be checked. The goal is to have a negative result.
- **Blood Pressure** measures the pressure against the walls of your blood vessels. It should be measured at every medical visit or at least 2 to 4 times a year. An elevated blood pressure (above 130/80 mmHG) can indicate a higher risk for heart and blood vessel problems.
- **Cholesterol:** An annual check of your LDL cholesterol gives a better picture of the health of your blood vessels. Keeping cholesterol in the target range reduces the risk for heart and blood vessel problems.
- **Estimated glomerular filtration rate (eGFR)** informs your healthcare professional of how well your kidneys are working. This test is often done once a year, but may be more frequent depending on what your healthcare professional decides is best for you. The goal is 60 mL/min or higher.
- Your healthcare professional may also want to see in the back of your eye, which requires them to put drops in your eyes to dilate or open them up even more. This is often done once a year and lets your healthcare professional know if there are any signs of eye problems.



▶ Knowing Numbers

### Helpful Tip:

Keep track of all your numbers. Write them down and look to see if you notice any patterns. Be sure to let your healthcare professional know if your blood glucose levels become too high or low, and if ketones are present.

### Myths vs Facts

**Myth:** Everyone with type 1 diabetes gets tested on the same schedule.

**Fact:** Not true. The frequency of your tests may be different than someone else. Your healthcare professional will determine what is best for you.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

- 1 Action**  
I will record the results of my A1C tests and make sure I know what they mean.

#### Why It Matters

Keeping track of how well your blood glucose levels are being managed over the last 2 or 3 months gives you and your diabetes care team important information to decide if your treatment plan needs to change.

- 2 Action**  
I will check my blood glucose 2 hours after eating.

#### Why It Matters

An after-meal reading over 180 mg/dL means you may need to alter your diabetes care plan.

- 3 Action**  
I will ask my healthcare professional about any test results I'm not familiar with so that I can get a better understanding of how my overall diabetes management plan is going.

#### Why It Matters

Diabetes is not just about sugar. It's important to pay attention to the numbers that indicate how your blood vessels (especially in the heart and kidneys) are working as well. Being prepared may catch ketones before they can do any damage.

# My Diabetes Learning Path

This program helps you personalize your learning needs at your own pace. It allows you to choose the information you need—from useful tips on healthy eating, being active, taking medicine, and staying on track—to support the diabetes management goals that you work with your healthcare professional to set.

# All Modules List



Eating modules



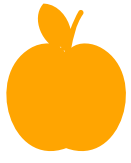
Moving modules



Managing modules



Staying on track modules



# Eating Modules





**NovoCare**  
Education + Resources  
DIABETES



# Moving Modules



# Managing Modules



# Staying on Track Modules

## ▶ Basic Carbohydrate Counting

# Basic Carbohydrate Counting

Healthy eating is as much a part of managing your diabetes as taking your medicine. What you eat, when you eat, and how much you eat all play a role in managing your blood glucose (sugar) levels. For example, your body needs carbohydrates for energy, much like a car needs gas to run. Once eaten, carbs turn into sugar which can raise your blood glucose. Carbohydrate counting is important to managing your type 1 diabetes because of the big impact carbs can have on your blood glucose levels.

## Key Points

- Carbohydrates are found in plant foods (fruit, vegetables, grains, starches, beans, and sugar). Milk and yogurt, while not plant foods, also contain carbs.
- Carbohydrates come in 3 forms: starches, sugars, and fiber. All starches break down into sugars.
- Counting carbs, or keeping them in balance, is an important step for managing blood glucose. But counting carbs doesn't mean you can't eat the foods that you enjoy. It's all about meal planning.
- The Nutrition Facts label lists total grams of carbs per serving.
- The amount of carbs you need is dependent on factors including your weight, level of exercise, and the medicine that you take.

## What You Need to Know:

- Carbohydrate foods have the most impact or effect on blood glucose. Foods containing mostly protein and/or fat do not increase blood glucose as much as carbs.
- There are 3 main sources of carbs in foods:
  1. Starches, which are found in bread, pasta, rice, cereal, corn, crackers, and some vegetables.
  2. Sugars, which are found in fruit, fruit juices, milk, yogurt, and candies.
  3. Fiber, which is found in fruit, vegetables, whole grains, beans, peas, and nuts.
- Foods that do NOT contain carbs are just as important for you to know. Here are some examples:
  - Proteins, which include meat, poultry, fish, eggs, cheese, and tofu.
  - Fats, which include oil, margarine, butter, mayonnaise, avocado, nuts, and seeds.
  - Foods that are free of carbs include sugar-free gelatin and sugar-free gum.
- Non-starchy vegetables usually have less of an impact on blood glucose. Some of these include carrots, tomatoes, lettuce, green beans, and broccoli.
- Carbohydrates are measured in grams. One serving size (also known as 1 carb choice) contains 15 grams of carbohydrate. Here are some examples of 1 carb choice:
  - 8 ounces of skim milk
  - 1 small apple
  - 1 slice of bread
  - 1/3 cup of light ice cream
- The amount of insulin you take will be based on the amount of carbs you plan to eat. Learning to count them is important to keeping your blood glucose balanced.
- Your diabetes care team can advise you about how many carbs you need each day. This will depend on several different factors including your weight, level of activity, and the medicines that you're taking.

## Helpful Tip:

Look at the Nutrition Facts label on your favorite foods at home. The label lists the total grams of carbs for each serving. Make sure to look at the total grams of carbs and not just the amount of sugar in an item. This is a good way to become more familiar with carb counting.

## Myths vs Facts

**Myth:** If you have diabetes you should avoid all forms of sugar.

**Fact:** Sugary foods tend to be high in carbs (calories and fat, too), so the portion size is often very small. If you plan ahead and save them for a special treat, you should be fine.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

**1 Action** I will find 3 foods at home that are sources of carbohydrates.

### Why It Matters

The first step in counting carbs is learning which foods contain them.

**2 Action** I will use measuring cups for 1 meal this week to measure out my carb food portions.

### Why It Matters

Once you know which foods contain carbs, the next step is knowing how many carbs they contain.

**3 Action** I will talk with a dietitian or my healthcare professional about how to balance my meal plan with my insulin.

### Why It Matters

Each person should have their own unique food plan designed specifically for them. Take time to learn about how different foods affect your blood glucose and how much insulin you need to keep your blood glucose in target range.

# Reading a Nutrition Facts Label

Knowing how to read and understand a nutrition facts label is important—even if you don't have diabetes. These labels can help you keep track of carbs, fat, and sodium. They also give you information about the percent of your daily value of these things. Reading food labels can help you make healthy choices and better manage your diabetes.

## Key Points

- The serving size is the first thing to review on a food label. It is based on the typical portion of food that is usually eaten. All of the nutrition information on the label (such as calories and grams of carbs) is based on the serving size that is listed. Talk with your healthcare professional to best determine what is right for you.
- The amount of food you eat may be different from the serving size listed. Adjust the numbers on the food label in your calculations based on what you actually eat.
- For most people, looking at the “total carbohydrate” figure is the next most important number to review. Your food plan may be based on a certain amount of carbohydrates at each meal.
- Pay attention to how much fat your food choice contains. Keep saturated fats to no more than a single gram and trans fats to 0 grams per serving.
- Choose foods with at least 3 grams of fiber per serving. These choices can help you feel fuller and eat less.

## What You Need to Know:

There are 5 key areas when reading a nutrition facts label.

- ▶ **Serving size:** Remember that most packages contain more than 1 serving, so be mindful of how much you're choosing to eat and adjust your calculations accordingly.
- ▶ **Saturated fat:** This is the unhealthy type of fat, which may raise your bad cholesterol or what is referred to as LDL-cholesterol (low-density lipoprotein). This is different than HDL-cholesterol (high-density lipoprotein), which is considered good. Try to choose foods that contain no more than 1 gram of saturated fat per serving.
- ▶ **Trans fat:** This is another kind of unhealthy fat, which can also raise your bad cholesterol. For this reason, look for foods that contain “0 grams” of trans fat.
- ▶ **Sodium:** Just because a food doesn't taste salty doesn't mean it's low in sodium. Low-sodium foods have no more than 140 mg of sodium per serving. High-sodium foods include canned foods, luncheon meats, and processed foods.
- ▶ **Total carbohydrates:** This figure combines 2 kinds of carbs—dietary fiber and sugars. Carbs raise blood glucose more than protein or fat. It's important to look at the total amount of carbs in a serving and not just the amount of sugar. Soluble fiber has little effect on blood glucose but can help keep your digestive tract working smoothly. It can also help you feel fuller. Choose foods with at least 3 grams of fiber per serving. It's important to know that carbs raise blood glucose even more than protein or fat.

<b>Nutrition Facts</b>	
8 servings per container	
<b>Serving size</b>	<b>1/2 cup (55 g)</b>
<b>Amount per serving</b>	
<b>Calories</b>	<b>230</b>
	<b>% Daily Value*</b>
<b>Total Fat</b> 8 g	<b>10%</b>
Saturated Fat 1 g	<b>5%</b>
Trans Fat 0 g	
<b>Cholesterol</b> 0 mg	<b>0%</b>
<b>Sodium</b> 160 mg	<b>7%</b>
<b>Total Carbohydrate</b> 37 g	<b>13%</b>
Dietary Fiber 4 g	<b>14%</b>
Total Sugars 12 g	
Includes 10 g Added Sugars	<b>20%</b>
<b>Protein</b> 3 g	
Vitamin D 2 mg	10%
Calcium 260 mg	20%
Iron 8 mg	45%
Potassium 235 mg	6%

\* 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.

## Helpful Tip:

Pay close attention to the serving size listed on the label. It may be a lot smaller than the portion sizes you've been eating. Use measuring cups and spoons as well as food scales to check your servings from time to time.

## Myths vs Facts

**Myth:** The only benefit of eating foods that are high in fiber is for your digestion.

**Fact:** Fiber helps you feel fuller, which may help you eat less. It also has benefits to helping keep blood glucose and blood fats closer to the target range.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

### 1 Action

I will look at the food labels on at least 3 items in my cabinets or pantry and note the 5 important areas.

#### Why It Matters

Checking labels may help you learn what to look for to make healthy decisions about what and how much to eat.

### 2 Action

Next time I'm at the grocery, I will compare labels on 2 similar food items. After noting the differences, I can then decide which is the better choice.

#### Why It Matters

Comparing labels on similar products may help you learn to select healthier options.

### 3 Action

I will practice my measuring skills for one day this week, weighing and measuring out all my food portions.

#### Why It Matters

Being aware of your portions will help you better manage how much you eat and have more accurate calculations of calories and of carbohydrates—which may affect blood glucose.

## ▶ Managing Blood Glucose Around Physical Activity

# Managing Blood Glucose Around Physical Activity

Being active—whether you’re playing sports, walking your dog, or simply taking a walk with a friend—can often lower your blood glucose. Sometimes, being active can cause your blood glucose to drop too low. In this module, we’ll learn how people with type 1 diabetes can enjoy being active while keeping their blood glucose at a safe level.

## Key Points

- Talk with your healthcare professional before starting any exercise program. They will be able to tell you how often to check your blood glucose so that you remain safe while adding activities to your life.
- Always keep snacks on hand in case your blood glucose drops too low.
- Check your blood glucose before and after being active.
- A good rule of thumb is to eat 15 grams of carbs for every 30 minutes of activity. Children may only require 5-15 grams of carbs, depending on their age and size. Be sure to discuss this with your child’s healthcare professional.

## What You Need to Know:

- Being active can cause your blood glucose level to drop. This can happen right after you exercise or play sports and even as long as 48 hours later. It is recommended that you exercise about 150 minutes each week. This can even be broken down to as little as 10 minutes twice a day, which may be more manageable for you.
- Always carry quick-acting carbs with you—juice, non-diet soda, sweets, or glucose tablets—so that you’re prepared for a low blood glucose event. Be sure to replace them after you’ve eaten them. Make sure that your support teams (friends, co-workers, and other helpers, such as a school nurse or sports coach) have extra snacks on hand if needed.
- The American Diabetes Association recommends that people with type 1 diabetes check their blood glucose before and after being active. Keeping your insulin dose balanced is important and can even be impacted by doing chores around the house.
- If you notice a big change in blood glucose after an activity, let your healthcare professional know so that you can make a plan for the future.
- For every 30 minutes of activity you do, eat a snack that contains 15 grams of carbohydrates. It is also suggested to have a snack if your blood glucose is below 100 mg/dL before activities or less than 90 mg/dL after activities.
  - Some snacks that contain 15 grams of carbs include:
    - 1 small piece of fruit
    - 4 ounces of fruit juice
    - 6 saltines
    - 1 mini box of raisins
    - 4 glucose tablets
- Sometimes being active can cause blood glucose to rise. This can happen for several reasons, including:
  - Your blood glucose may be too high before starting your activity
  - You may have eaten too much food before being active
  - Your diabetes medicine may need some adjusting
  - Too much adrenaline was released by being active or due to stress

### Helpful Tip:

Talk with your healthcare professional before starting any new activities. They will be able to advise you about when to check your blood glucose and when to eat in order to keep your blood glucose levels within a healthy range. It may also be suggested that you decrease your insulin dose on days you are more active.

### Myths vs Facts

**Myth:** All physical activities cause your blood glucose to drop.

**Fact:** Some do, but others may not. Check with your healthcare professional to ensure the right balance between physical activity and your insulin dose.

## Nice work! You’ve finished reading through the information on this topic.

Now you’re ready to act and start incorporating these new healthy habits into your life. This will help you practice what you’ve learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

### 1 Action

Before participating in any sports or physical activities, I will have a plan for when and how often to check my or my child’s blood glucose.

#### Why It Matters

The only way to help know how being active is affecting your diabetes or your child’s diabetes is to check blood glucose before and after being active.

### 2 Action

I will choose a 15-gram carb to treat low blood glucose.

#### Why It Matters

Thinking about treating low blood glucose ahead of time gets you one step closer to having treatment on hand when needed.

### 3 Action

I will be sure to wear medical identification.

#### Why It Matters

Medical identification (such as an ID bracelet) allows people to know that you—or your child—have type 1 diabetes and the kinds of medicines that are being taken. This is especially important if you or your child become disoriented or pass out while being active so that proper treatment is offered quickly.

## Fitting Injections Into Your Daily Routine

# Fitting Injections into Your Daily Routine

Being prescribed an injectable medicine, such as insulin, may make some people uncomfortable, scared, and even wonder if they've done something wrong. Needing an injectable medicine is not your fault. It's just another way for your healthcare professional to help keep your blood glucose in target range.

## Key Points

- Your diabetes care team can give you tips for making injections easier, so don't be shy about reaching out.
- Letting your friends and family know that you need to take an injectable medicine to help manage your diabetes may help you feel less concerned about taking your medicine during social situations.

## What You Need to Know:

- There are things you can do to make giving yourself injections easier, such as:
  - Practicing on an "injection pillow"—a soft pad that's used just for this purpose. It's worth noting that the needles used with diabetes medications are small in comparison to traditional hypodermic needles.
  - Trying different injectable diabetes medicines, such as a vial and syringe, a pump, or a pen
  - Ask your diabetes care team about ways to make injections easier. For example, there are prefilled disposable pens that you may prefer.
- Talk with your friends and family about your need to take an injectable medicine to help manage your diabetes. This may help lessen your concerns about having to take your injectable medicine in a social situation, like during a family gathering.

### Helpful Tip:

Focus on the positive. Ask your healthcare professional or pharmacist about how your injectable medicine is going to help keep your blood glucose in target range.

## Myths vs Facts

**Myth:** Injections are always painful.

**Fact:** There are ways and options to make injections easier, which is why it's important to talk with your diabetes care team. They can give you some helpful tips.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

**1 Action**  
I will practice injecting into an injection pillow.

### Why It Matters

Practicing with an injection pillow can help you learn how to give yourself an injection safely.

**2 Action**  
I will ask my diabetes care team for tips about making injections more routine.

### Why It Matters

Reaching out to experts always makes sense. They have lots of experience and have learned all sorts of tips they'd be happy to share to make taking your medicine easier.

**3 Action**  
For the next week, I will focus on how taking my injectable medicine is helping me stay healthy.

### Why It Matters

Thinking positively may help you stay on track. It may also help you look at your medicine as an important partner in caring for your health.

▶ Long-Acting Insulin

# Long-Acting Insulin

Long-acting insulin, also called background insulin, works to keep blood glucose in target range between meals and during the night. It reaches the bloodstream several hours after injection and tends to lower glucose levels for up to 24 hours.

There are several different kinds of long-acting insulins. It is important to know the specific kind you take and the facts about how it works. This module will help you learn about this important type of insulin.

## Key Points

There are two main types of insulin. One type acts slowly and is called “background” insulin or basal insulin because it works in the background throughout the day and night. The other kind of insulin is called mealtime insulin and is taken before eating.

## What You Need to Know:

- Background insulin is taken once or twice a day at the same time each day. It helps manage blood glucose levels between meals and during the night. It does not need to be taken with food.
- Some background insulin is “long-acting”—meaning it has a duration of action of up to 24 hours and it does not have a peak action time—or a time when it works the hardest. Another kind is called “intermediate-acting” and while it can work for up to 24 hours, it has a peak action time between 4 and 12 hours.
- Often, background insulin is taken with another diabetes medicine—either diabetes pills or a mealtime insulin.
- Premixed insulins are a combination of mealtime and background insulin.
- The recommended dose is different for each person. It is based on several factors including your weight and the level of sugar in your blood.

### Helpful Tip:

- It’s common for your healthcare professional to adjust the dose of your insulin to meet your body’s unique demands. This doesn’t mean there is something wrong. It may just take some time to finely tune your dose to meet your personal needs.
- If using an intermediate-acting insulin (like NPH), a snack may be needed between the lunch and dinner meal to reduce the risk of low blood glucose.
- Long-acting insulin can come in prefilled insulin pens or it can be given using a syringe with a vial of insulin.
- Store opened or used pens or vials of insulin at room temperature, and unopened pens or vials in the refrigerator.
- Don’t use insulin that is past its expiration date.

## Myths vs Facts

**Myth:** There is no risk for hypoglycemia (low blood glucose) with long-acting or background insulin.

**Fact:** Long-acting insulin can still lead to hypoglycemia, and the risk increases if taken with mealtime insulins or with certain diabetes pills (like sulfonylureas).

## Nice work! You’ve finished reading through the information on this topic.

Now you’re ready to act and start incorporating these new healthy habits into your life. This will help you practice what you’ve learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

- 1 Action** Discuss any problems you may have taking insulin (including fear, confusion, worry about side effects, remembering to take it or the cost) with my healthcare professional.

### Why It Matters

Learning strategies to help address these barriers can help make taking medicine easier and keep you healthier.

- 2 Action** Monitor your blood glucose according to the recommended schedule.

### Why It Matters

The best way to know how a new insulin is working is to do home blood glucose monitoring. Monitor more often when starting a new medicine. If blood glucose is usually in target range, it is doing its job,

- 3 Action** Rotate the sites where injections are given.

### Why It Matters

If injections are always given in the exact same spot, fatty lumps could develop making it harder for the insulin to be absorbed.



# Mealt ime Insulin

If you have type 1 diabetes, you need to take insulin. About 50% of people with type 2 diabetes will eventually also need to take insulin. Needing to take insulin doesn't mean your diabetes is getting worse; it just means your pancreas isn't making enough of this blood glucose-lowering hormone. There are several different types of insulins.

In this module, we're going to learn about rapid-acting and short-acting insulins. Rapid-acting insulin acts quickly (in 10 to 30 minutes). It peaks in about 1 to 2 hours after injection and lasts between 2 and 4 hours. Short-acting insulin usually reaches the bloodstream within 30 minutes after injection, peaks between 2 and 3 hours after injection and lasts for around 3 to 6 hours.

## Key Points

- Rapid-acting insulin works as quickly as 10 minutes. Short-acting insulin works as quickly as 30 minutes.
- You inject rapid-acting insulin up to 15 minutes before a meal, or short-acting insulin 30 minutes before a meal, which is why they're often called "mealt ime insulins."
- Rapid-acting and short-acting insulin work by replacing what your body makes—or should make—naturally.

## What You Need to Know

- Rapid-acting insulin starts to drop your blood glucose level in as soon as 10 minutes, but if your blood glucose is high, you may want to wait longer before eating.
- Rapid-acting insulin is often called, "mealt ime insulin" because you take it up to 15 minutes before meals, during, or slightly after a meal.
- Rapid-acting insulin helps manage blood glucose levels after you eat a meal or a snack.
- You may hear your healthcare professional refer to "peak time." This is when the insulin is working its hardest to lower your blood glucose.

### Helpful Tip:

You may need to take a long-acting insulin along with the mealt ime insulin your healthcare professional has prescribed. A long-acting insulin helps control your blood glucose levels between meals and during the night and is taken 1 to 2 times a day.

### Myths vs Facts

**Myth:** If you need to take insulin, it means you've done something wrong managing your diabetes.

**Fact:** Needing to take insulin doesn't mean you've done something wrong. It just means your body needs extra help in managing your blood glucose levels.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

1

#### Action

I will make sure to take my rapid-acting insulin up to 15 minutes before a meal or as directed by my healthcare professional.

#### Why It Matters

While rapid-acting insulin starts to work as soon as 10 minutes, if your blood glucose is high, you may want to wait a little longer to eat after injecting.

2

#### Action

I will not blame myself for needing to take insulin as it doesn't mean I did anything wrong.

#### Why It Matters

Needing to take insulin simply means your body needs a little extra help managing your blood glucose levels for good health. It doesn't mean you failed or did anything wrong.

3

#### Action

I will talk with my healthcare professional to see if a mealt ime insulin is right for me.

#### Why It Matters

Your healthcare professional can best determine if a particular type of medicine is right for you.

# Technology and Managing Diabetes

There are all sorts of technologies that help make managing your diabetes easier than ever before. In this module, you'll learn about all the options that are available so you can determine which, if any, work best for you. As always, if you have any questions and want to know if a certain device will fit your needs, talk with your diabetes care team.

## Key Points

Diabetes technology and devices can provide many benefits to certain people. However, not everyone would benefit from using these tools. Sometimes they are covered by insurance and sometimes, they are not. Sometimes technology can make living with diabetes easier and improve overall diabetes management, but sometimes it will not. Learn what might be right for you and if it is worth the cost.

## What You Need to Know:

- **Continuous Glucose Monitoring (CGM)** uses a tiny sensor that is inserted under your skin on your stomach or arm to measure the glucose found in the fluid between your cells. Every few minutes, the sensor monitors your glucose and transmits the results to a monitor.
  - Some CGM devices send the information to another device, such as a reader, or to an app on your smartphone or other device. CGM devices can also be a part of an insulin pump.
  - CGM tracks your blood glucose levels all day and night, and lets you view them any time. You can track your blood glucose changes over a few hours or days to see trends that allow you to better balance your food, physical activity, and medicine.
- **Connected insulin pens, also known as smart insulin pens**, combine a reusable injector pen with a smartphone app to help you better manage your insulin delivery. In addition to calculating and tracking your insulin dose, the app provides reminders, alerts, and reports. There are a few pens to choose from. Talk to your healthcare professional about what would best meet your needs.
- **Insulin Pumps** are insulin-delivering devices that are roughly the size of a deck of cards. They can be worn on the skin or a belt or kept in a pocket. They connect to narrow, flexible plastic tubing that ends with a needle that is inserted just under the skin. You set the pump to give you a steady amount of insulin continuously throughout the day. Pumps release several units of insulin at a time at meals and at times when blood glucose is too high. This is based on the programming done by the user.
- **Artificial Pancreas Device System** uses a continuous glucose monitor (CGM), an insulin infusion pump, and a program stored on the pump or a smartphone. It is sometimes referred to as a “closed-loop” system or “automated insulin delivery” system.
  - There are several different types of Artificial Pancreas Device Systems. These systems mimic the way a healthy pancreas would regulate blood glucose levels.
  - An Artificial Pancreas Device System does more than just monitor your blood glucose levels, it also automatically adjusts how much insulin is delivered with little or no input from you. For more information, discuss with your healthcare professional as some of these systems are still being researched.

## Helpful Tip:

With so many options to choose from, make time to talk with your diabetes care team about which option(s) might be best for you.

## Myths vs Facts

**Myth:** If I start with insulin injections, I have to stay with insulin injections.

**Fact:** If you don't like injections, talk with your healthcare professional about switching to an insulin pump. It might make it easier for you to manage your diabetes.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

- 1 **Action**  
I will talk with my diabetes care team about the new technologies to help manage my diabetes.

### Why It Matters

Your diabetes care team can help you decide which of the new technologies might be better suited to your individual needs.

- 2 **Action**  
If I switch to a new technology, I will continue to monitor and record my blood glucose levels.

### Why It Matters

Monitoring your blood glucose levels helps you and your healthcare professional decide if your diabetes medicine, insulin, or any lifestyle changes need to be made.

- 3 **Action**  
If I switch to a continuous glucose monitor, I will still keep a traditional meter handy as a backup or if my readings seem off.

### Why It Matters

If how you feel doesn't match the blood glucose reading on your CGM, having a backup meter is always a good idea.

## Beyond the Basics of Type 1 Diabetes

# Beyond the Basics of Type 1 Diabetes

The more you know about type 1 diabetes, the more it can be managed. As you have probably already learned, the more you know about your condition—any condition—the more empowered and in charge you feel. In this topic, you and your caregiver will learn some of the basics of type 1 diabetes and its management. As always, you're encouraged to reach out to your diabetes care team with any questions you may have.

## Key Points

- Living with type 1 diabetes presents different challenges at different stages in life. They all can be better managed by talking with your diabetes care team. These experts can provide you with all sorts of helpful tips for you, your child, or family member living with type 1 diabetes.
- No matter where you are—at home, work, or at school, it helps to be prepared. Having your tools on hand (monitors and medicine supplies) and snacks or glucose tablets ready for low blood glucose episodes is important.
- Remember: you are not alone. About 64,000 people (ages 0-64 years) are diagnosed with type 1 diabetes each year in the United States.

## What You Need to Know:

- During the period of 2001-2015, about 64,000 people ages 0-64 years in the United States were diagnosed with type 1 diabetes each year. It is very common in children and adolescents but may affect people of any age. It may make you feel more comfortable knowing that you are not alone.
- Managing diabetes will become a part of your daily routine if it hasn't already. You need to monitor your blood glucose and take your insulin every day. It is recommended that most people with type 1 diabetes use an insulin pump and a continuous glucose monitor (CGM) for the most advanced treatment methods.
- Healthy eating is as much a part of your diabetes care as taking medicine. It's important to understand that food affects you and your body a little differently than it affects people who don't have diabetes. Packing a lunch to take to school or work might be a helpful way to stay on track.
- Carrying around these supplies in a backpack or keeping extras in the office or at school may be helpful.
  - Snacks, glucose tablets, or fruit juice for low blood glucose
  - Back-up supplies for blood glucose monitoring or taking medicines (whether it is for the pump, CGM, meter or insulin injection supplies).
  - And don't forget to wear a medical ID necklace, bracelet, smart watch sleeve, or ankle bracelet
- Gatherings at another home, such as a dinner party or a sleepover can present particular challenges. If you're the caregiver, reach out to the host. If you are checking for your child, advise them on meal requirements, insulin injections, and what to do in case of a low blood glucose event. Reach out to your diabetes care team for suggestions.
- If you're the caregiver for a teenager or young adult, be sure to keep the lines of communication open. Find out about the pressures they may be facing. In time, you can help come up with solutions, but simply listening is a great first step.
- Dating with diabetes is another subject to discuss and prepare for with your young adult child. There's no one-size-fits-all solution, but here are some ideas that may help:
  - If their date knows that they're going to be dining with someone who has diabetes, it may be easier to stick with a healthy meal plan.
  - Talk with your diabetes care team about having a plan to deal with low blood glucose, monitoring blood glucose, or taking an injection while on a date.
  - Checking blood glucose before going out and having emergency snacks or glucose tablets on hand are also important.
  - If the person with diabetes is of drinking age, remind them that alcohol can quickly affect blood glucose. This can leave them at risk for low or high blood glucose. Many people with type 1 diabetes choose to avoid alcohol entirely for this reason.
- Finding healthy ways to manage stress is another important part of diabetes self-management. Discuss coping strategies with your son or daughter so that they feel prepared.
- If you're managing a career along with type 1 diabetes, you should feel comfortable asking your employer for special accommodations if you need them. Breaks to check blood glucose levels, eat a snack, take medicine, or rest until blood glucose levels become normal are reasonable according to the American Diabetes Association. The same is true for being able to keep your diabetes supplies and food nearby, having a private area in which to test your blood glucose, or take your insulin are also reasonable.

## Helpful Tip:

Communication is the key to handling most difficulties that we face. If you're the caregiver of someone with type 1 diabetes, be sure to listen to their concerns. You may not have all the answers, but knowing that they have you on their side to help find solutions may be enough of a comfort.

## Myths vs Facts

**Myth:** Growing up with type 1 diabetes means I'm going to miss out on having a normal childhood.

**Fact:** Not at all! Participating in the same activities as others might just take a little extra preparation and listening to your body. Talk with your healthcare professional about any questions you may have.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

- 1 Action**  
This week, I will pack a healthy lunch for me or my child.

### Why It Matters

Eating the right foods and the right portions of foods is as important as taking your medicine. It can help keep your blood glucose numbers in target.

- 2 Action**  
I will keep my family up to date with how I am managing my blood glucose and suggest ways they can help.

### Why It Matters

The more your family knows, the more they can help.

- 3 Action**  
I will identify a place at work or school where I feel comfortable checking my blood glucose and taking my insulin.

### Why It Matters

Finding a comfortable place to care for your diabetes will help you keep on track.

## ▶ Cardiovascular Risk and Protection

# Cardiovascular Risk and Protection

People with diabetes need to take extra care to manage their risk for heart disease compared to those who don't have diabetes. That's because people with diabetes are twice as likely to have a heart attack or stroke as those who don't have diabetes. In this module you'll learn ways to make protecting your heart a part of your everyday life.

## Key Points

- Diabetes puts you at an increased risk for a heart attack or stroke.
- Eating healthy, staying physically active, and managing your ABC's (A1C, blood pressure, and cholesterol) can reduce your risk of heart disease and stroke.
- Several diabetes medicines have been shown to be beneficial in reducing risks for heart disease.
- Regular checkups are a smart way to care for your heart. This typically includes having your A1C checked, a thorough eye exam, a foot exam, and making sure that your cholesterol levels and blood pressure are where they should be for you.

## What You Need to Know:

- Having diabetes puts you at increased risk for having a heart attack or stroke. That's because high blood glucose levels over time can damage your blood vessels and nerves. Plus, many people with diabetes also have high blood pressure, high cholesterol, and are overweight—3 things that increase your chances of getting heart disease.
- Your risk of heart disease and stroke is higher the longer you live with diabetes.
- There are many things you can do to decrease your risk of heart disease, including: eating less saturated fat and more high-fiber foods, such as fruits and vegetables, being physically active on a regular basis, and keeping your A1C in target range.
- Managing blood pressure is very important to reduce your risk of heart disease. For most, it means keeping blood pressure below 130/80 mmHg. For some who are at higher risk, the goals may be lower.
- Talk with your healthcare professional and schedule regular checkups. This can help you manage your blood glucose levels and also lower your risk of heart disease.
- Here are some other ways to care for your heart:
  - **Every 3 to 6 months** have your A1C and blood pressure checked by your healthcare professional.
  - **Once a year**, have the following blood tests: triglycerides and cholesterol (especially HDL and LDL) to check the health of your blood vessels and creatinine to check kidney function. In addition, have a thorough eye exam, which includes getting your eyes dilated so your doctor can see your optic nerve. You should also have a complete foot exam and get a flu shot and other recommended vaccines.

### Helpful Tip:

Managing your weight is very important. In fact, for people with overweight or obesity, losing about 5-7% of your body weight can help. If you need help learning how to eat healthy portions, check out the Diabetes Plate Method module for details.

### Myths vs Facts

**Myth:** If I have diabetes, there is nothing I can do to manage my risk for heart attack or stroke.

**Fact:** You can do many things to reduce your risk, including eating healthy foods, maintaining a healthy weight, exercising regularly, and taking your diabetes medicine(s) as prescribed.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

1

### Action

I will follow the recommendations for healthy eating and monitor my food portions to maintain a healthy weight.

### Why It Matters

Managing your weight can help you better manage your blood glucose levels and your heart health.

2

### Action

I will talk with my healthcare professional about having routine checkups to reduce my risk of heart disease.

### Why It Matters

Routine checkups can help alert your healthcare professional to changes in your blood glucose, cholesterol, weight, and other important factors that can impact your heart health.

3

### Action

I will be sure to schedule annual eye and foot exams.

### Why It Matters

Your eyes and feet can be affected by diabetes, which is why it is so important to have them checked by a healthcare professional at least once a year.

▶ **Changing Behavior**

# Changing Behavior

Now that you're living with diabetes, chances are your diabetes care team has recommended that you change a few of your behaviors. You were probably told to become more active. Learning how to check your blood glucose, take medicines, or measure foods are other changes in behavior healthcare professionals often recommend.

Changing your behavior, even slightly, has the ability to change the course of your diabetes for the better. Even small changes can provide you with positive health benefits. Let's explore what some changes might be and how they may help.

## Key Points

- Changing or starting new behaviors isn't always easy, but with the right support—you can do it!
- Consider how these changes—even the small ones—may make a big difference in your health to help keep you motivated.
- Plan ahead and prepare for situations that can get in your way of changing your behavior by thinking of ways to overcome them.

## What You Need to Know:

- Changing behaviors may be a challenge. This is why it is often a good first step to think about some of the changes you need to make and how they can help.
- Breaking down the behavior you want to change into smaller steps will make it easier. Be as specific and realistic as possible. Instead of thinking about something broad and vague such as exercising more, break it down into each of the steps you might need to take to get to where you want to be, such as: I will get new sneakers or I will walk for 10 minutes today.
- Situations like holiday dinners or overnight trips might make it trickier to follow your meal plan. Making a plan that includes tips for handling things in advance is often helpful.
- Reach out to your family, friends, and diabetes care team for support. They can help motivate you and encourage healthy changes.
- Plan ahead and think about the things that trip you up and how you can either avoid or overcome them.

### Helpful Tip:

Focus on the benefits of changing unhealthy behaviors. When you see the benefits, you may see fewer obstacles. Don't try to change too many behaviors at once. That can be overwhelming and set you up for failure. You may even want your family members to join you as everyone can benefit from these healthy changes. Make a list of the behaviors you need and want to change, and try to tackle one each week.

### Myths vs Facts

**Myth:** Knowing that you need to make healthy changes should be enough to get you started.

**Fact:** Not true. It helps if you first understand how these changes can help improve your health. Seeing the big picture can be very motivating. Then, think of ways to make these changes doable.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

- 1 Action**  
I will pick 1 health change that I can try today.

**Why It Matters**  
Starting slow may increase your chances of success.
- 2 Action**  
I will identify 1 situation that gets in the way of my diabetes care.

**Why It Matters**  
Anticipating or avoiding obstacles that get in the way of keeping you on track can help you be better prepared for them.
- 3 Action**  
I will tell the people on my diabetes care team what I need from them.

**Why It Matters**  
The more support you can get in managing your diabetes, the easier it may be to manage it.

## ▶ Checking Blood Glucose and A1C

# Checking Blood Glucose and A1C

An important part of caring for your diabetes is checking your blood sugar (or blood glucose). Glucose, which is the main sugar found in your blood, comes directly from the foods that you eat and is your body's energy source. It is also important to know the results of your A1C blood test. Your A1C test results can give you a picture of where your blood glucose levels—on average—have been over the past 2 to 3 months.

Keeping track of both your blood glucose and A1C is called, "monitoring." Monitoring is key because it gives you the information you need to know where your blood glucose levels are and where they might be headed. It is a good indicator for how the diabetes treatment plan is working. It's like a GPS for your diabetes management. This information will help guide you and your diabetes care team to better customize your diabetes care plan.

## Key Points

- Monitoring your blood glucose—at home with a meter and at the office of your healthcare professional to check your A1C—is an important part of managing your diabetes.
- Blood glucose can also be monitored with a device called a continuous glucose monitor (CGM) that tracks blood glucose levels all day and night. It works with a tiny sensor put under the skin usually on your belly or arm.
- Your blood glucose levels provide important information to your diabetes care team that may require adjustments to your current care plan.
- Studies show that keeping your A1C below 7% may reduce your risk of some diabetes-related concerns, such as eye, kidney, or nerve problems.

## What You Need to Know:

- You may feel fine even when your blood glucose levels are above target. This is why monitoring your blood glucose is so important.
- There are 2 ways to monitor your blood glucose:
  - Having an A1C blood test at your healthcare professional's office
    - These results tell you an average of how your blood glucose levels have been during the past 2 to 3 months.
  - Checking your blood glucose at home using a meter or continuous glucose monitor (CGM) on a daily basis. A CGM tells you the amount of time your blood glucose is within the target range set by your diabetes care team. Since everyone is different, your healthcare professional may specify that you check before or after meals.
    - Be sure to keep track of your blood glucose results and share them with your healthcare professional at your visits. The patterns of highs and lows can help guide any changes in your medicine that need to be made.
    - Ask your healthcare professional to recommend a meter or CGM that is covered by your health plan. This may save you money on test strips and lancets.
- Your diabetes care team will use your blood glucose results to make any changes to your care plan, including your medicines, eating plan, and physical activities.
- For most people, when you wake up and before meals, your blood glucose levels should be between 80 mg/dL and 130 mg/dL. One to 2 hours after meals, your levels should be less than 180 mg/dL. Your recommended targets may be different.
- Keeping your A1C levels below 7% has been shown to help reduce your risk of some common diabetes-related problems (eye, nerve, or kidney problems). It can also impact your cardiovascular system, foot health, and even your dental health.

### Helpful Tip:

Ask your healthcare professional what your target blood glucose and A1C numbers should be. This may help you stay on track.

## Myths vs Facts

**Myth:** Having high blood glucose levels is bad.

**Fact:** Your blood glucose levels aren't good or bad. They simply provide information about how well your diabetes care plan is working. Most people will have blood glucose that falls above or below range some of the time. The goal is to increase the amount of time it falls within the goal range.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

1

### Action

At my next visit, I will ask my healthcare professional what my target blood glucose range should be.

### Why It Matters

Knowing your blood glucose targets may help you know if you need to make changes to your diabetes care plan.

2

### Action

I will ask my health insurance company what their "preferred" meter or CGM is.

### Why It Matters

Using a meter that is covered by your insurance may help you save money on testing supplies.

3

### Action

Every day this week, I will check and log my blood glucose levels as often as my healthcare professional recommends.

### Why It Matters

Checking your blood glucose levels lets you know how well your diabetes is being managed.

# Coping with Stress

Most people have stress in their lives. The challenges that you and your family face living with diabetes can add to that stress. This stress can sometimes lead to depression, which is something that people with diabetes may be at higher risk for developing.

Additionally, coping with the unique stress that COVID-19 brings (such as isolation and added concerns about one's health) can add to these stress levels. Fortunately, there are things you can do to better handle how you cope. This topic will educate you about how stress affects your health and offer tips for managing it better.

## Key Points

- Stress can elevate your blood glucose levels. Sometimes, it can lower it and result in low blood glucose—if you're too stressed to eat than skip a meal.
- Find ways to cope with stress, whether it be leaning on your network of supportive family and friends, going for a walk, doing yoga, or reading a relaxing book.
- It's worth noting some of the common symptoms of depression, which include loss of interest or pleasure in doing things you typically enjoy, trouble sleeping or sleeping more than usual, and eating more or less than usual. If you have any of these symptoms or notice them in a friend or family member, talk with your healthcare professional. There are numerous things one can do to help cope with depression and you are not alone.

## What You Need to Know:

- Stress may directly affect your blood glucose levels. It can either raise or lower blood glucose levels. Here's why:
  - When you're in a stressful situation—maybe an argument with a friend—stress hormones, such as adrenaline, are released. This causes blood glucose levels to rise.
- Feeling isolated or “different” because of your diabetes can be stressful, too. Sometimes, this type of stress may make you want to skip a meal, but don't. A skipped meal could lead to low blood glucose.
- The day-to-day management of diabetes can add to your stress. Remembering to take your medicine(s), checking your blood glucose levels, eating healthy, and being active can add up. Predicting obstacles and planning ahead can help you feel like you are better able to manage things.
- Find healthy ways to cope with stress, such as deep breathing, meditation, or even taking a long walk with a friend.
- Check blood glucose more often when you are feeling stressed and see how it affects you.

### Helpful Tip:

Getting support from your friends, family, an online support group, or your diabetes care team can help you cope with stress. There may be times when it is helpful to talk with a mental health professional, especially if you're experiencing signs of depression. Ask your healthcare professional for a referral if you need one and remember that you are not alone. Your mental health is as important as your physical health.

### Myths vs Facts

**Myth:** If I were stronger, I would be able to handle stress better.

**Fact:** The only kind of strength that helps with the management of stress is a strong support system. Don't forget to reach out to family, friends, or your diabetes care group for help in managing stress.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

### 1 Action

I will identify what life stresses make it harder for me to manage my diabetes.

#### Why It Matters

Being aware of how life gets in the way may help you prepare for it and possibly even change it.

### 2 Action

For the next week, I will focus on how to make the hardest part of managing diabetes easier.

#### Why It Matters

You can reduce stress by talking with your diabetes care team or others in your support system. They may be able to help you find ways to change the way you look at stressful situations or change the environment that's causing stress.

### 3 Action

This week, I will try 1 strategy to help manage stress—taking a walk, spending time with friends, watching a movie.

#### Why It Matters

Stress is a fact of life. Having tools to help manage stress may help.

# Highs and Lows

Understanding what causes high and low blood glucose is an important part of taking care of type 1 diabetes. In this topic, we'll learn the causes of high and low blood glucose, how to recognize and treat its symptoms, and how to look for patterns. It's important to keep your numbers within the range your care team has set for you.

## Key Points

- Knowing your target range for your blood glucose is important, so be sure to ask your healthcare professional.
- Keep track of your blood glucose levels and see if there are patterns. Were you more active when your blood glucose levels changed? Were you sick or stressed? All these things can impact your blood glucose levels. Share your tracker with your healthcare professional at your next visit.
- Having snacks available if your blood glucose drops is an important part of self-care. Be sure to let your family, friends, and co-workers know the symptoms of low blood glucose and where the snacks to help treat this are located.

## What You Need to Know:

- Your blood glucose numbers provide important information about how well your diabetes treatment plan is working. Your diabetes care team will use this information to determine if your care plan is working or if it needs to be changed.
- Everyone's blood glucose goals are different and are determined by your healthcare professional. However, for most non-pregnant people with type 1 diabetes, the blood glucose targets are:
  - 80 mg/dL to 130 mg/dL when you wake up and before eating or drinking. This is often called fasting plasma glucose or FPG.
  - Less than 180 mg/dL is the typical target 1 to 2 hours after eating or drinking. This is often called postprandial glucose or PPG.
- Low blood glucose is below 70 mg/dL at any time.
- Common symptoms of **low** blood glucose are feeling shaky, dizzy, sweaty, hungry, angry or irritable, having a headache or difficulty concentrating, and being confused.
  - Tips for managing low blood glucose:
    - Have a snack that includes 15 grams of carbs, such as ½ cup of regular fruit juice or regular soda, 4 glucose tablets, and candies that can be quickly chewed, such as 7 gummies.
    - Keep these snacks handy in your car, office desk, and nightstand. Let your family, friends, and co-workers know how to recognize the signs and symptoms of low blood glucose and what to give you if you are low.
    - Fifteen minutes after having a snack, check your blood glucose again. If your blood glucose is still low, have another small snack. Once your blood glucose returns to target range, have a meal to help keep your blood glucose from becoming low again.
- Common symptoms of **high** blood glucose are increased thirst, increased urination, dry mouth or dry skin, tiredness or fatigue, blurred vision, more frequent infections, such as yeast or urinary tract infections, slow-healing cuts and sores, or unexpected weight loss.
  - Tips for managing high blood glucose:
    - If you have signs of high blood glucose, be sure to check more often and take your insulin as recommended. The non-insulin medications that you take can also have an impact on your blood glucose. As always, ask your diabetes care team if you have any questions.
    - Be sure to check your blood glucose before, after, and while playing sports or other activities as adrenaline may cause your sugar levels to rise.
- Keep track of your blood glucose levels and try to determine the cause of your highs and lows. Use one of the many apps to keep track of your numbers or [keep a written record](#). Bring this information to your next office visit to discuss with your healthcare professional.

### Helpful Tip:

If you or your loved one is experiencing any of the symptoms described above, check your blood glucose. It may mean that it's too high or too low. Then, follow the suggestions for managing your blood glucose.

## Myths vs Facts

- Myth:** There's nothing I can do about high or low blood glucose.
- Fact:** There are many things you can do to remedy blood glucose levels that are out of your target range. Follow the tips we described above and talk with your diabetes care team for additional tips.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

- 1 Action**  
I will work with my diabetes care team to identify my blood glucose goals.

**Why It Matters**  
Blood glucose goals vary from person to person. Knowing what yours are is important, so be sure to have this conversation with your diabetes care team.
- 2 Action**  
I will keep track of my blood glucose levels so that I can look for patterns and share them with my diabetes care team.

**Why It Matters**  
Recording your blood glucose numbers may help you become more aware of patterns. Try to determine what causes your highs and lows and discuss this with your diabetes care team.
- 3 Action**  
I will call my healthcare professional to let them know if my blood glucose goes below 70 mg/dL.

**Why It Matters**  
Even 1 low reading may require a change in your medicine. This is why it's important to discuss this with your healthcare professional.



▶ Identifying Your Goals and Motivation

# Identifying Your Goals and Motivation

Your diabetes is different from anyone else's diabetes. You have your own reasons for staying motivated and following your diabetes care plan. You also have your own goals. Once you're clear about what your goals and motivations are, it's easier to identify the action steps to achieve those goals, take charge and better manage living with diabetes. Be sure to ask your family and friends for their support. This can make things much easier for you.

## Key Points

- Know your goals. These are the big-picture reasons why striving for better health is important to you.
- Identify specific action steps you can take that will help you reach your goals. Be as specific and realistic as possible.
- Understanding what motivates you can actually help you stay motivated. Jot down some of your motivations for following your diabetes care plan. You may want to put this list somewhere visible to help keep you on track.
- Think about the obstacles you face and make a plan for handling each one. Feeling prepared can be very empowering.

## What You Need to Know:

Here are some tips for getting and keeping you motivated:

- Everyone is motivated by different things. Here are a few goals that might also work for you:
  - I want to be healthy so that I can be there for my family.
  - I know someone who had problems as a result of not taking care of their diabetes. I don't want that to happen to me.
  - I want to feel better and have more energy.
- Think about writing down your main motivations and putting them someplace where you'll see them every day.

Here are a few tips for setting your diabetes care action steps:

- Start by talking with your healthcare professional and partner with them to set specific and realistic things you can do.
- Make your action steps specific. For example, "I will check my blood glucose first thing every morning."
- Set action steps that are realistic. If you find it difficult to be active once a week, it may be unrealistic to think you can be active every day. Start with small steps and add to them little by little. Be sure to take the time to celebrate your accomplishments. This can help you stay motivated.

### Helpful Tip:

Write down your goals *and* your motivations. Use a magnet to place them on your refrigerator. This can help ensure that you see it every day—a few times each day!

### Myths vs Facts

**Myth:** I have a reason to feel motivated today and will use it to stay motivated in the future, too.

**Fact:** Just as your diabetes treatment goals may change with time, the same is true for your reasons to stay motivated. Review and update your goals from time to time.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

**1 Action**  
I will write down my number 1 goal or motivation for making healthy changes.

#### Why It Matters

You may be more likely to succeed if you figure out what motivates you. Remind yourself of this motivation when things get tough.

**2 Action**  
For the next week, I will set a realistic action step I can manage to add to my exercise routine.

#### Why It Matters

Physical activity and exercise help your body become more sensitive to your own insulin and use it more effectively. Before starting any exercise plan, be sure to talk with your healthcare professional first.

**3 Action**  
I will reward myself for sticking to my action steps and achieving them this week.

#### Why It Matters

Learning how to stick to your action steps will teach you what may help you maintain healthy changes long term and reach your goals.

# Knowing Numbers

As you may already know, people with type 1 diabetes need to know their numbers to better understand how well their condition is being managed. It also helps to understand the many terms your diabetes care team will be using when they discuss your diabetes treatment plan with you. This learning module will help you do just that. The more you know, the better you can partner with your diabetes care team to keep your numbers in their target range.

## Key Points

- There are various blood tests your healthcare professional will want to do in order to learn how well your blood glucose is being managed, what your blood glucose levels are when you wake up, and how it differs 1 to 2 hours after you eat or drink.
- Checking to see how well your kidneys are functioning and determining the health of your eyes are also important.
- Your healthcare professional will determine how often these tests are needed for you or your child.

## What You Need to Know:

- **A1C** measures how well your blood glucose levels have been controlled over the past 2 to 3 months. It is measured by a blood test that is done 2 to 4 times a year. For most people, keeping your A1C less than 7% is the goal. Your healthcare professional will tell you what is best for you or your loved one.
- **Fasting Plasma Glucose (FPG)** is the measurement of your blood glucose levels when fasting for at least 8 hours, like when you first wake up in the morning. For most people, the FPG goal is between 80 mg/dL and 130 mg/dL. Your healthcare professional may set different goals for you.
- **Postprandial Glucose (PPG)** is the measurement of your blood glucose levels 1 to 2 hours after you eat or drink. It is often measured several times a day but may vary as your healthcare professional recommends. For most people, the PPG goal is less than 180 mg/dL.
- **Time in Range (TIR)** is the percent of time blood glucose falls within a range (usually between 70 and 180 mg/dL). For most people, the goal is to have their TIR be at least 70%.
- **Ketone test** measures the presence of ketones found in the urine or blood. Ketones are acids that can build up when the body doesn't have enough insulin to move blood glucose into your cells. Whenever your blood glucose goes above 250 mg/dL twice in a row, your doctor may recommend your ketone levels be checked. The goal is to have a negative result.
- **Blood Pressure** measures the pressure against the walls of your blood vessels. It should be measured at every medical visit or at least 2 to 4 times a year. An elevated blood pressure (above 130/80 mmHG) can indicate a higher risk for heart and blood vessel problems.
- **Cholesterol:** An annual check of your LDL cholesterol gives a better picture of the health of your blood vessels. Keeping cholesterol in the target range reduces the risk for heart and blood vessel problems.
- **Estimated glomerular filtration rate (eGFR)** informs your healthcare professional of how well your kidneys are working. This test is often done once a year, but may be more frequent depending on what your healthcare professional decides is best for you. The goal is 60 mL/min or higher.
- Your healthcare professional may also want to see in the back of your eye, which requires them to put drops in your eyes to dilate or open them up even more. This is often done once a year and lets your healthcare professional know if there are any signs of eye problems.

### Helpful Tip:

Keep track of all your numbers. Write them down and look to see if you notice any patterns. Be sure to let your healthcare professional know if your blood glucose levels become too high or low, and if ketones are present.

### Myths vs Facts

**Myth:** Everyone with type 1 diabetes gets tested on the same schedule.

**Fact:** Not true. The frequency of your tests may be different than someone else. Your healthcare professional will determine what is best for you.

## Nice work! You've finished reading through the information on this topic.

Now you're ready to act and start incorporating these new healthy habits into your life. This will help you practice what you've learned and build the skills you need to better manage your diabetes. Here are a few suggested actions:

- 1 Action**  
I will record the results of my A1C tests and make sure I know what they mean.

#### Why It Matters

Keeping track of how well your blood glucose levels are being managed over the last 2 or 3 months gives you and your diabetes care team important information to decide if your treatment plan needs to change.

- 2 Action**  
I will check my blood glucose 2 hours after eating.

#### Why It Matters

An after-meal reading over 180 mg/dL means you may need to alter your diabetes care plan.

- 3 Action**  
I will ask my healthcare professional about any test results I'm not familiar with so that I can get a better understanding of how my overall diabetes management plan is going.

#### Why It Matters

Diabetes is not just about sugar. It's important to pay attention to the numbers that indicate how your blood vessels (especially in the heart and kidneys) are working as well. Being prepared may catch ketones before they can do any damage.