

Type 2
diabetes



Type 2 Diabetes *Guidebook*

So, you've been diagnosed with type 2 diabetes. *What now?*

You probably have a lot of questions about what this means for your health. Maybe you are confused or scared – that's completely understandable and normal. A diagnosis with diabetes doesn't have to define you or your life. We are here to support you.

You can live a happy, active life with type 2 diabetes. With healthy foods, regular exercise and some tips for maintaining blood sugar levels, you'll be ready for all of life's adventures.

This guidebook explains how type 2 diabetes affects your body and well-being. Learn about symptoms, complications and what to do to feel better. Our hope is that you'll use this guidebook to help you get started on your journey of managing diabetes well.

The path may have taken a turn, but you are not alone on this journey. We encourage you to work closely with your healthcare team. If you need an extra hand, reach out and connect with our health coaches to get tips and guidance for setting goals and staying on track with diet, fitness and medications. We're here to support you every step of the way.

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Disclaimer: This booklet is intended to serve as a reference and guide to help you Be Better. It does not replace visits or direction about your treatment plan that you receive from your healthcare provider.

About type 2 diabetes



Understanding *type 2 diabetes*

What is type 2 diabetes?

Type 2 diabetes is a condition that affects how our bodies regulate blood sugar (glucose). Blood sugar is our body's main source of fuel (energy). Diabetes can develop in a number of ways. One way it can develop is if the pancreas, the organ responsible for making insulin, doesn't produce insulin adequately enough. Releasing sufficient insulin is important because insulin is a hormone that supports the movement of glucose into our cells for fuel. Another way type 2 diabetes develops is when the pancreas releases sufficient insulin, our cells become less sensitive to insulin (insulin resistance), even when the pancreas releases enough insulin. If our cells are resistant to insulin, they cannot accept the glucose circulating in our blood stream.

The unused glucose that remains in our blood stream is processed in the kidneys and excreted through urine. Excess glucose in our urine depletes our body of essential energy. To correct this, people with type 2 diabetes may need to make lifestyle changes, including dietary modifications and engaging in regular physical movement. Some people may also need additional support in managing their diabetes with the help of medication (oral or injectable insulin) to help move glucose into the cells.

Reducing the risk of diabetes by preventing the onset of prediabetes

In prediabetes, blood sugar levels are higher than normal, but not high enough to be diagnosed with type 2 diabetes. If you are reading this guidebook because you are prediabetic, you may be able to prevent the onset of type 2 diabetes by partaking in healthy lifestyle choices. The healthy habits one could implement include, but are not limited to, increasing physical activity, choosing healthy foods, reducing stress and maintaining a healthy weight. Talk with your team of healthcare providers about what healthy lifestyle choices make sense for you.

We encourage you to continue learning more about diabetes and how you can better understand and improve your condition and overall health. Continue working closely with your team of healthcare providers and see the resources in chapter 12 of this guidebook for additional support.

The most common symptoms of type 2 diabetes include:

- Frequent urination
- Excessive thirst
- Extreme hunger
- Blurred vision
- Irritability and mood change
- Fatigue
- Slow-healing wounds, frequent infections
- Numbness or tingling in the hands or feet

Who's on *your team?*

You are not alone in managing diabetes. Your healthcare team is here to support you and will work closely with you and your family as you navigate living with diabetes. You are central to this team, so remember to be an active member. Being an active member is understanding and taking a proactive role in becoming informed about diabetes and your personalized treatment plan. Learn as much as possible by asking questions and advocating for yourself.

Communication with your healthcare team is essential to successfully manage diabetes. Because symptoms of diabetes can vary from day to day, taking notes and being prepared to share your observations and experiences with your blood sugar levels will be advantageous to you and your healthcare team. The following are important aspects of your care to take note of:

- Details of your blood sugar levels
- General diet
- Typical activity level
- Any unusual changes to mood or energy level
- Sleep patterns
- Recent illnesses

Your healthcare team

Below is a list of healthcare professionals you may work with:

Primary care provider

Your primary care provider (PCP) could be your general practice or family physician. They could also be a physician assistant, nurse practitioner, internist or pediatrician.

- Provides general medical care (annual physical and checkups)
- Supports your overall care
- Provides referrals, as needed

Endocrinologist

Not everyone with diabetes needs to see an endocrinologist, but this may be recommended by your PCP.

- Specializes in treating both type 1 and type 2 diabetes
- Works with other disorders related to the endocrine glands and hormones

Diabetes educators

Diabetes educators can be nurses and dietitians.

- Supports learning more about diabetes
- Assists in meal planning and carbohydrate counting
- May help with managing diabetes medications

Optometrist

An optometrist specializes in eye care through:

- Examination
- Diagnosis
- Treatment of the eyes

Ophthalmologist

An ophthalmologist performs medical and surgical treatments for diseases of the eyes, including:

- Glaucoma
- Retinopathy
- Cataracts

Podiatrist

A doctor who provides foot care examinations and treatment.

- Checks footwear fits properly
- Assesses circulation and nerve damage
- Trims toenails
- Removes calluses

Dentist

Dentists provide regular dental care, possible diagnoses and treats gum disease.

- Completes dental examinations
- Provides regular cleanings, at least two per year
- Checks overall oral health and gum health

Social worker

A professional who specializes in finding and offering information and resources about diabetes-related services.

- Connects with local resources or available services

Health coach

A health coach offers personalized support for making lifestyle changes to better manage your diabetes.

- Supports you in moving towards your personal health goals
- Helps you better understand your health and how to advocate for yourself



More information about *blood sugar levels*

Whether you're diabetic or not, our blood sugar levels are constantly fluctuating. When diabetic, we want to support our bodies by avoiding large fluctuations. The extreme changes in blood sugar levels are described as hyperglycemia (high) or hypoglycemia (low). Below are additional tools and strategies for dealing with high and low blood sugar levels.

Let's start with what a healthy blood sugar level range is. When testing your blood sugar levels, the levels below are what to aim for:

	Fasting blood sugar levels*	1-2 hours post meal
Non-diabetic	<100 mg/dL	<140 mg/dL
Prediabetic	100-125 mg/dL	140-179 mg/dL
Diabetic	<130 mg/dL	<180 mg/dL
My blood sugar levels		

**Fasting blood sugar is the amount of sugar (glucose) in your blood after you haven't eaten for 8-12 hours (usually overnight). Sometimes it's referred to as Fasting Plasma Glucose (FPG). A fasting plasma glucose test is used to diagnose prediabetes and diabetes.*

My healthy blood sugar range is: _____

Common times for checking blood glucose levels

- Morning fasting
- Before meals
- 1-2 hours post meal
- Before bedtime

Hemoglobin A1c

The A1c test reflects average blood sugar levels for the past two or three months. Check with your healthcare provider to see how often you should have your A1c checked and what level is most desirable for you.

	HbA1c
Non-diabetic	<5.7
Prediabetic	5.7-6.4
Diabetic	6.5 or greater
My HbA1c levels / date of blood draw	

Hypoglycemia

What is hypoglycemia?

Hypoglycemia is when blood sugar levels drop too low, below 70mg/dL. Avoiding low blood sugar levels is critical to managing diabetes well.

What causes hypoglycemia (low blood sugar)?

- Missing or delaying a meal or snack
- Eating less than usual
- Extra physical activity or unplanned activity
- An insulin dose that is too high

How hypoglycemia might feel?

Experiencing low blood sugar can happen very quickly. It's important to note that while the following lists includes most common symptoms of low blood sugar, we all have individual signs and symptoms. Know what your personal symptoms are, write them down and teach them to others around you

Physical signs of low blood sugar:

- Shakiness
- Fatigue
- Dizziness
- Sweating excessively
- Hunger
- Weakness
- Headache
- Slurred speech
- Passing out (in severe cases)

Behavioral signs of low blood sugar:

- Irritability
- Nervousness
- Confusion
- Combative actions

What to do if hypoglycemic:

The steps below should be used when your blood sugar is unexpectedly low. Chronically over-correcting low blood sugar levels can lead to blood sugar imbalances. Refer to your team of healthcare providers for support in maintaining stable blood sugar levels.

1. Check your blood sugar level.
2. If it is low (70 mg/dL or lower), take some form of sugar right away. Each of the following provides 15 grams of fast metabolizing carbohydrates:
 - 4 ounces of juice or soda
 - 3 to 4 glucose tablets
 - 8 ounces of milk (based off 2% milk)
 - 1 tablespoon of honey or sugar
3. Wait 15 minutes, then recheck your blood sugar. If it is still low (below 70 mg/dL), take another 15 grams of fast metabolizing carbohydrates. Then after another 15 minutes, take your blood sugar once again. If it remains below 70 mg/dL, call your healthcare provider.

**It's important to quickly get your blood sugar into a normal range but be mindful of following up with a more nutrient dense snack or meal to encourage balanced blood sugar. Try adding something that contains fiber and/or is protein rich.*

Following your diabetes treatment plan closely is the best way to prevent low blood sugar. Something to be aware of if you are taking insulin is that you may have occasional low blood sugar. To avoid complications:

- Know your symptoms
- Know your target blood sugar range
- Check your blood sugar before and after exercising, as needed
- Have snacks and emergency glucose source readily available
- Teach others who spend time with you to recognize hypoglycemia signs and symptoms

List your specific symptoms below:

Hyperglycemia

What is hyperglycemia?

Hyperglycemia is when you experience high blood glucose levels. This happens when blood sugar builds up in your blood stream rather than being moved into your cells for energy. Hyperglycemia is when blood sugar levels go above 125 mg/dL when fasting or above 180 mg/dL 1-2 hours after eating. Avoiding excessively high blood sugar levels is critical to managing diabetes well.

What causes hyperglycemia (high blood sugar)?

- Consuming too many foods that spike blood sugar levels (sugar, simple carbohydrates)
- Not consuming enough foods that help promote balanced blood sugar levels (protein, fiber, healthy fat)
- Inconsistent timing of meals
- Experiencing physical, mental, and/or emotional stress
- Sickness or infection
- Not taking oral medications and/or insulin as prescribed – or taking less than recommended
- Taking other medications that affect your blood sugar levels (antibiotics and steroids)

How hyperglycemia might feel

Being familiar with the signs of high blood sugar levels will help you know when to take action. It's important to note that while the following list includes most common symptoms of high blood sugar, we all have individual signs and symptoms. Know what your personal symptoms are, write them down, and teach them to others around you.

- Excessive thirst
- Frequent urination
- Stomach pains and/or nausea
- Blurred vision
- Headache
- Feeling very tired
- Weakness
- Confusion

Preventing hyperglycemia

- Know your target blood sugar range
- Keep a regular eating pattern and eat appropriate portions
- Check your blood sugar before and after a meal, as needed
- Keep a regular physical activity routine
- Check your blood sugar before and after exercising, as needed
- Take your medication as prescribed by your healthcare provider
- Manage the impact of stress
- Teach others who spend time with you to recognize hyperglycemia signs and symptoms



Healthy eating for type 2 diabetes

It's important to understand how food affects your blood sugar levels. Creating a healthy eating plan that encourages steady blood sugar levels is essential. Macronutrients, including protein, fiber and healthy fat from natural, unprocessed whole foods help to slow down the absorption of sugar (carbohydrates) into the blood stream. Each of us has an individual response to food. You may want to experiment with what works best for you based on portions, timing and types of food. For these reasons, your healthcare provider may refer you to a dietitian, nutritionist or diabetes educator.

What are carbohydrates?

There are a number of different types of carbohydrates (starches and sugars). No matter what type of carbohydrate you consume, it all breaks down through metabolism into simple sugar. Diabetes is often described as "having too much sugar." Below is a list of the different types of carbohydrates.

Complex carbohydrates (fiber) come from plant-based foods such as (unprocessed) whole grains, legumes, vegetables and fruits. It's the part of these foods that are not digested but are still an important part of a healthy diet. Fiber can slow the impact of carbohydrates on blood sugar levels.

















Simple carbohydrates (starchy foods) include processed flours, sugar and other grains. Milk, juice, soft drinks and other processed foods fall into this category. Simple sugars digest quickly and should be limited in a well-balanced diet.

Carbohydrates for each meal/snack

Breakfast _____ grams
 Lunch _____ grams
 Dinner _____ grams
 Snacks _____ grams

(Check the ones in your meal plan.)











Morning _____ grams
 Afternoon _____ grams
 Evening _____ grams

Carbohydrates					
Type of food		Serving size	Type of food		Serving size
	cooked beans	1/2 cup		cooked sweet potatoes, green peas or regular potatoes	1/2 cup
	blackberries, blueberries	3/4 cup		apple, pear or orange	1 (small)
	plain yogurt	1 cup		banana	1/2
	granola	1/4 cup		apple, grapefruit or orange juice	1/2 cup
	cereal, oats, or shredded wheat	1/2 cup		milk	1 cup (8 oz)
	bread	1 slice		popcorn (popped)	3 cups
	cooked pasta or rice	1 cup		pretzels	3/4 cup
	cooked broccoli, carrots or cauliflower	1 1/2 cup		sugar, honey, jam / jelly or syrup	1 tbsp

(15 g of carbohydrates per serving)

Proteins and fats

While carbohydrates are a major focus for someone living with diabetes, the other macronutrients (protein and fats) are an important element of our diet to support blood sugar balance. Below are a few examples of healthy protein and fat sources you might consider adding to your diet. However, the amounts needed will vary individually. Be sure to work with your healthcare team to find the suggested amounts of each.

Healthy protein sources	
	fish, seafood
	beans
	eggs
	meat (chicken, beef, pork)
	tofu
Healthy fat sources	
	olive oil, avocado oil
	butter, ghee
	avocado
	cold-water fatty fish
	Nuts, seeds

The following are examples of fat sources to avoid or use these minimally: Avoid all hydrogenated fats such as margarine and shortening, trans fats, and vegetable oils like safflower, corn, soybean.

Tip: Some protein sources also provide healthy fat, like salmon or other cold water fatty fish. The same is true for some healthy sources of fats; they can provide decent protein, like almonds and other healthy nuts.

Recommended amounts per day

Protein _____ grams
 Fat _____ grams
 Fiber (complex carbohydrate) _____ grams

In summary

Making changes to what we eat and knowing where to start can be overwhelming. Making slight changes and shifts in our food or daily eating habits can lead to big changes and positive outcomes. Let yourself start small and build from there by focusing on what foods you can eat and what works best for you. Work with your healthcare team to determine what dietary approach and eating plan works best for you.

Things to consider:

- Start from where you are, work with your existing habits
- Using a food log can be helpful to see any patterns and reflect on what works well
- Be kind to yourself when making dietary changes, remember these are habits you've made over your entire lifetime
- Making any change is a process, focus on progress not perfection

List additional insights of what works well for you in the space below:

“

Do something today that

your future self will thank you for.

– Unknown

”

Physical activity and your health

Physical activity can help you feel good today and improve your health for tomorrow. Activity helps our body to efficiently use blood sugar as energy. Making regular activity a part of your lifestyle is essential to supporting healthy diabetes maintenance.

Physical activity can support you by:

- Lowering blood sugar
- Lowering blood pressure
- Maintaining a healthy weight
- Increasing strength, energy and flexibility
- Reducing need for oral or injected diabetes medications
- Improving cholesterol
- Reducing stress
- Helps with feeling better

General physical activity considerations

When starting a physical activity routine, below are some things you might consider:

- Think about activities you enjoy and are excited about doing
- It can be helpful to have a partner to be active with
- You can be active without having to go to the gym
- Activity can be broken down into shorter time frames throughout the day

While the general recommendation is to get 150 minutes of moderate physical activity each week, it's okay to start with less, ANY movement is better than none.

Ideas for physical activity you might consider trying out:

Aerobic:

- Walking
- Biking
- Swimming
- Dancing
- Racquet sports (pickle ball, tennis, ping pong)

Strength training:

- Using light weights
- Exercises using your own body weight (push-ups, sit ups, squats or lunges)
- Yoga or Pilates



Call your doctor immediately if you experience severe exhaustion, severe or prolonged shortness of breath or chest pain during or after physical activity.

Special precautions

Because everyone's situation is different, it's important to consult your healthcare team before starting a new physical activity program. Your healthcare provider can advise you when to check your blood sugar. It's important to consider adjustments that may need to be made to your diet and treatment plan (medications). Ask your healthcare team if there are any specific precautions you should take.

Below are some additional things to consider:

- Learn how to correct blood sugar levels if they become too low
- Avoid exercising when the weather is extreme (hotter or colder than normal, or high humidity)
- Drink plenty of water throughout the day to stay hydrated, especially during physical activity
- Ensure footwear fits properly
- Carry identification or a medical alert bracelet while exercising

Details about your physical activity routine

Work with your healthcare team to fill in the following information about your physical activity routine.

List physical activities that you enjoy doing:

My healthcare provider advises these special precautions during physical activity:

Additional details about my physical activity program:

When exercising, I need to check my blood glucose levels this often:

Medication for managing *type 2 diabetes*

Many types of medications are available to support diabetes management. It's important to work closely with your healthcare provider by scheduling regular visits to review your medications and understanding how they work. Keep in mind that medications work best when used in conjunction with lifestyle choices like healthy eating and regular activity.

Take an active role in managing your medications

Taking multiple medications can be overwhelming, here are some things to consider:

- It may be helpful to fill all your prescriptions at the same pharmacy
- Talk to your healthcare provider or pharmacist about any questions or concerns you may have about your medications. For example:
 - To avoid adverse drug interactions, share all prescriptions and nonprescription medicines you take, including vitamins and supplements
 - Highlight if you have any medical conditions, allergies to any medicine or food
 - Be sure to tell your healthcare provider if you are pregnant or breastfeeding
 - Carry a list of all your medications with proper dosages with you.
 - Feel free to use the chart below and the cut-out option for this list in the back of this guidebook

Use this chart to write down and keep track of all your medications.

Medication name	Instructions

“
Do the best you can.
No one can do more than that.
”
– John Wooden

Recommended *preventive screenings*

To best manage diabetes, your healthcare provider may recommend completing the following preventive screenings. Talk with your healthcare team about how often these screenings are recommended for you.



Every year

- Annual wellness check with your primary care provider (PCP)

- Fasting blood glucose
- Hemoglobin A1c
- Blood pressure check
- Lipid panel
- Weight check
- Kidney screening
- Comprehensive foot evaluation
- Diabetic eye exam



Every six months

- Wellness check with your PCP

- Fasting blood glucose
- Hemoglobin A1c (if your blood sugar is stable)
- Blood pressure check
- Weight check

- Dental exam

- Foot evaluation



Every three months

Based on your PCP's recommendation, you may be asked to have routine screenings done every three months

- Wellness check with your PCP

- Fasting blood glucose
- Hemoglobin A1c (if your blood sugar is unstable)
- Blood pressure check
- Weight check

- Foot evaluation



Diabetic eye exams

People with diabetes have a higher risk of developing eye conditions that can lead to loss of vision due to damage of the tiny vessels in our eyes. These conditions include cataracts, glaucoma, and diabetic retinopathy, which may easily go unnoticed. Early detection through annual preventive eye exams can save your sight.

Cataracts occurs when the eye's clear lens gets cloudy and blocks light from entering the eye, which can affect a person's vision. People with diabetes tend to get cataracts at a younger age and can experience a faster progression of the condition.

Glaucoma occurs when pressure builds in the eye and damages the retina and nerve endings. The risk of glaucoma increases the longer you have diabetes, as well as with age.

Diabetic retinopathy refers to disorders of the retina caused by uncontrolled diabetes. People with type 2 diabetes may be at higher risk of developing non-proliferative retinopathy, which often does not exhibit any symptoms. Your retina can be badly damaged even before you notice any change in vision.

Be sure to schedule and complete a preventive diabetic eye exam annually.



Dental health

People with diabetes have a higher risk of having poor dental health. For this reason, it is important for diabetics to visit the dentist at least twice per year to help prevent potential problems. You can also prevent dental health problems by maintaining steady blood sugar levels and taking good care of your teeth and gums.

Uncontrolled blood sugar levels can lead to:

Gingivitis is a mild form of gum disease that can lead to periodontitis without proper treatment. A sticky film full of germs (called plaque) that can build up on your teeth. High blood sugar contributes to the growth of bacteria in the mouth.

Periodontal disease can damage the gum and bone that holds your teeth in place and may lead to chewing that is painful. Red, sore and bleeding gums are the first sign of periodontitis.

Thrush is fungal infection that is characterized by having a dry mouth as a result of not having enough saliva. This can lead to painful white patches in your mouth.

By seeing your dentist regularly, they can help you take care of your teeth and gums by:

- Cleaning and checking your teeth and gums twice a year
- Helping you learn the best way to brush and floss your teeth and gums
- Identifying if you have problems with your teeth or gums and what to do about them
- Identifying if you have a fungal infection in your mouth and treating it

Be sure to schedule an appointment with your dentist if you have one or more of the symptoms listed below:

- Red, sore, swollen gums
- Bleeding gums
- Gums pulling away from your teeth, so your teeth look long
- Loose or sensitive teeth
- Bad breath
- A bite that feels different
- Dentures that do not fit well

Remember, good blood sugar control can help prevent dental problems!



Foot care

It is important for people with diabetes to be especially careful about their foot health. With regular foot care and checkups with your healthcare provider, you can prevent advanced problems with your feet.

Uncontrolled blood sugar levels can cause:

Nerve damage, which can lessen your ability to feel pain, heat and cold. This can lead to sores and blisters that may result in a foot ulcer.

Numbness and reduced blood flow to the legs and feet.

Decreased circulation, which can weaken your foot's ability to fight infection and heal.

Steps to take to prevent foot problems:

Shoes and socks

- Discuss the best shoes and socks options with your healthcare provider based on your specific needs and activities
- Wear shoes that fit properly and always wear clean socks
- Change socks regularly if they become wet or sweaty
- Before putting on each shoe, look for objects that may cause discomfort while wearing
- Avoid being barefoot both indoors or outdoors by wearing protective footwear or open-toed footwear such as sandals
- Protect your feet from extreme temperatures by wearing warm socks and shoes when it's cold or keeping them protected from direct sun and hot surfaces

Check your feet every day

- Inspect each foot for cuts, bruises, or other signs of injury. If you're unable to check your own feet, you may consider using a hand-held mirror or asking a family member or caregiver to assist
- Pay attention to hot or cold spots on your feet, these could indicate an infection (hot) or poor blood flow (cold)
- Be sure to check your feet after exercising

Wash your feet every day

- Use warm water when washing your feet. Be sure to test the temperature with your hand before putting your feet in to avoid too hot of water.
- Use mild soap and avoid products with fragrance
- Dry your feet carefully, being mindful to dry between your toes
- Apply a mild moisturizer if your skin seems dry. Be mindful to avoid using moisturizer between your toes as it can build up and lead to infection.

Nail care

- Trim your toenails regularly
- Trim your toenails after washing your feet when your nails are softer
- Cut or file your toenails straight across or use an emery board to remove rough or sharp edges
- If you have poor eyesight or have a hard time cutting your toenails, get help from a caregiver or healthcare provider
- Call your healthcare provider if you have red or swollen toes, it may be an indication of an ingrown toenail or infection

Other precautions and general care considerations

- Prolonged nerve damage can change the shape of your feet and toes that may require therapeutic shoes
- Never treat calluses or corns with chemical agents or try to cut or remove them yourself. This can lead to ulcers, infections or burns. Ask your healthcare provider for help with these.
- If you get a foot ulcer, see your healthcare provider immediately. Neglecting ulcers can result in infections, which can lead to further complications such as the loss of a limb.
- Have your healthcare provider check your feet at least once a year and/or at each visit. Be sure to talk with them about any foot problems or concerns you may have. Prompt treatment can make a big difference. Ask your healthcare team for suggestions about keeping your feet clean and safe.

My healthcare provider/team suggests:

Wear the right shoes

If you have diabetes, foot problems can arise quickly and be very painful. That's why it's important to always wear shoes that fit well and feel comfortable. Here are some general guidelines for getting the right shoes.

Do:

- Wear athletic or walking shoes for everyday use.
- Wear shoes or slippers to keep your feet safe.
- Always wear socks so you won't get blisters.
- Make sure all your shoes fit if your feet have changed shape.
- Shop for shoes at the end of the day when your feet are bigger.
- Break in new shoes slowly. Wear them only one or two hours a day for the first week or two.

Don't:

- Wear shoes that don't fit well.
- Get shoes that don't support your feet.
- Choose shoes that don't match the shape of your feet.
- Wear pointed-toe shoes.
- Wear high heels.
- Wear knee-high socks that are too tight below the knees.

Other potential complications of diabetes

Uncontrolled diabetes is strongly correlated with heart disease and stroke. High blood sugar levels are damaging to the nerves that control the blood vessels. Other risk factors for heart disease and stroke include age, race, gender and family history. To support optimal heart health, it's important to maintain balanced blood sugar levels and to closely monitor and manage blood pressure and cholesterol.

Keep in mind that incorporating healthy lifestyle choices, such as eating a natural, whole food-based diet and engaging in regular physical movement is essential to supporting a healthy heart. Certain medications may be prescribed to reduce your risk, as well. Connect with your team of healthcare providers to learn more about ways to reduce your risk of heart disease and stroke.

Heart health terms

Some common terms used when talking about heart health are listed below:

Blood pressure is the amount of force (pressure) of blood pushing against blood vessel walls when the heart is both beating and at rest. Chronic or extremely high blood pressure can increase your risk of heart disease and stroke. The standard recommendation for healthy blood pressure is less than 120/80.

Cholesterol is a collection of fat-like substances found in our body's cells, as a part of cell structure. We need cholesterol to make certain hormones and vitamins and to help with digestion. Cholesterol is made naturally in our body (in the liver) and is also found in a variety of the foods we eat.

HDL (High Density Lipoprotein) cholesterol is often referred to as 'healthy' or good cholesterol. It helps remove excess low-density lipoprotein (LDL) cholesterol from the blood where it is broken down by the liver and removed from the body. There is an

association between high levels of HDL and lower chances of developing heart disease. Regular body movement (aerobic exercise) and eating healthy fats from foods like cold water fatty fish (for example, salmon), avocado, nuts and seeds can help to support healthy levels of the HDL cholesterol.

LDL (Low Density Lipoprotein) cholesterol is referred to as "lousy" or bad cholesterol. It can lead to a buildup of cholesterol in your arteries. The lower your LDL level, the lower your risk for heart disease. Following an eating plan that is high in fiber (vegetables/fruits) and low in processed/fast foods can help to maintain lower levels of the LDL cholesterol.

Triglycerides are another form of fat in your blood. Triglycerides are naturally produced in our bodies and are also largely found in processed foods. There is a correlation between high blood sugar and increased triglyceride levels, which can also increase risk for heart disease. Regular body movement (aerobic exercise) and following an eating plan that is high in fiber (vegetables/fruit) and low in processed/fast foods can help to maintain lower levels of triglycerides.

Cholesterol to HDL Ratio is one way to measure increased risk for heart disease. You can calculate your cholesterol ratio by dividing total cholesterol by HDL cholesterol. Your ratio might be between 5-to-1. A higher ratio can be an indicator of an increased risk of heart disease.

Kidney disease

Maintaining healthy blood sugar levels helps to preserve kidney health and function. Kidneys contain millions of tiny blood vessels that are susceptible to damage when blood sugar levels are uncontrolled. It is recommended to have your kidney health checked at least once per year. Your healthcare provider can order a kidney health screening (nephropathy screening) to be completed through a urine sample and/or bloodwork. Be sure to check with your healthcare provider if you are due for a kidney screening.

Neuropathy

Diabetic neuropathy is one of the most common complications of diabetes. Neuropathy causes damage to the nerves that run throughout the body and connect the spinal cord to muscles, skin, blood vessels and other organs. About

half of all people with diabetes have some form of nerve damage, typically in the extremities (hands and feet). The longer you have diabetes, the more likely you'll experience neuropathy. To avoid or delay nerve damage, be sure to keep blood sugar levels within a healthy target range.

Gastroparesis

When neuropathy impacts the digestive system, it's called gastroparesis. Movement, digestion, and the emptying of food in the digestive tract slows or stops when nerves are damaged. Because digestion takes longer to occur, having gastroparesis can cause unpredictable changes in blood sugar. Be sure to work with your healthcare team for more support when living with gastroparesis.



Support and plans



Support for *managing diabetes well*

With preventive care and lifestyle management, you can minimize and avoid the development of complications often associated with diabetes.

Managing stress

Stress can be both a positive and a negative experience. Some stress is actually good for us, such as when we work to overcome fears or accomplish goals. However, chronic, long-term stress can have a negative impact on our health. It's important to learn healthy ways to cope with stressful situations.

How to tell if your body is experiencing stress

Sometimes stress can sneak up on you. You may or may not feel any effects at all, even though your body is experiencing stress. Below is a list of ways that stress might affect you:

- You might feel a wide variety of emotions like anger, fear, excitement or helplessness
- It can lead to changes in eating and activity habits
- Experiencing aches and pains throughout your body
- You might have trouble sleeping (falling asleep, staying asleep or restlessness)
- For some, chronic stress may lead to substance abuse

While you cannot control the outside forces that may leave you feeling stressed, you may be able to change the way you react to them.

Here are some tips for reducing the effects of stress:

- Find ways to move your body, consider indoor activities or being outside in nature
- Incorporate more laughter throughout your day
- Find balance in work and play
- Practice meditation or deep breathing exercises
- Reach out to trusted friends and/or family for support
- Learn to say "no" and set healthy boundaries for stressful requests and situations
- Reframe and look for the silver lining if in difficult situations

If you're struggling with finding ways to manage and reduce your stress, you may find it helpful to work with a mental health professional.

Improving sleep quality

Getting a good night's sleep is important for overall good health. Finding what sleep routine works best for you and being able to stick with it, will increase your chances for improved sleep quality, which will help you to feel your best!

Here are some tips on how you can improve sleep hygiene and sleep quality:

Go to bed and wake up at the same time each day. This helps to set the body's internal clock. Consider a pre-sleep routine that consists of relaxing activities such as taking a bath, reading a book, or practicing relaxation and meditation techniques.

Consider establishing a waking up routine that involves getting natural light on your face each morning, even if it's cloudy. Create a quiet, dark and cool bedroom environment to help improve sleep quality.

Remove distractions such as TVs and other electronics from the room. Consider limiting your bedroom to activities related to sleep and sex only. Keep pets out if they have the tendency to wake you up often.

Practice going to sleep when you're truly tired. If you can't fall asleep after 20 minutes, try relaxing outside of your bed until you are tired enough to fall asleep in bed. If you nap, try to take them mid-day or earlier and keep them around 20 minutes to avoid affecting your ability to fall asleep at bedtime

Exercise early. Exercise can help improve sleep quality. It's best to exercise earlier in the day to avoid disrupting evening sleep.

Eat a light evening meal or snack and limit fluid intake before bed. Avoid indigestion by keeping evening meals and snacks light. Limiting your fluid intake before bed keeps you from having to make several trips to the bathroom through the night.

Avoid stimulants such as caffeine, alcohol, nicotine, and other chemicals that interfere with sleep. Limit these stimulants four to six hours before bed to improve sleep quality and decrease wakefulness throughout the night.

Support for concerns of depression

Managing diabetes can feel overwhelming because of the additional work involved. Experiencing depression can make it more challenging to take good care of yourself. Below is a list of symptoms that might indicate depression. Review the list below and circle any that you feel may apply to you.

Recently, I have experienced:

- A loss of pleasure in the things I used to enjoy
- A change in my sleep patterns
- A change in my appetite
- Trouble concentrating
- A loss of energy
- Nervousness
- Guilt or a feeling of burden to others
- Increased sadness
- Suicidal thoughts

If you have any of these symptoms, consider connecting with a mental health professional to find support. Talk with your healthcare provider to see if there may be a physical cause for your depression, such as a thyroid problem or if you are experiencing side effects from medications. You might also consider talking with your healthcare provider about whether to take an antidepressant as additional mental health support. Optimize the resources available to you by maintaining regular contact with your team of healthcare providers.

“
Today is your opportunity to
build the tomorrow you want.
”
– Ken Poirot

Have a plan for sick days

Blood sugar levels may vary for a variety of reasons, including when you're not feeling well or are under high stress. Follow the recommendations, below, to help manage blood sugar levels if sick.

Know when to call your healthcare provider

Below is a list of times when you should reach out to your healthcare provider. Your healthcare provider may also have additional signs and symptoms they'd like you to watch for.

Blood sugar levels more than 240 mg/dL or less than 60 mg/dL, even when taking insulin and/or other diabetic medications

Feeling tired and/or sleepier than normal

Trouble breathing or thinking clearly

Vomiting or diarrhea for more than six hours

No noticeable improvement after one or two days

What to do when you are sick

1. Check blood sugar every three to four hours and keep track of your results. Follow up with your healthcare provider as needed.
2. Keep a record while you are sick. The following information may be helpful for you to share with your healthcare provider:
 - Changes or fluctuations in blood sugar levels
 - Length of illness
 - Changes in weight
 - Changes in appetite
 - Other symptoms (fever, chills, pain...)
3. Be prepared by having diabetic friendly food on hand. Follow your meal plan as much as possible. If you don't feel like eating, try some of the listed mild foods below:

Liquids: soup, broth

Mild grains: oatmeal, whole-grain crackers

Other: applesauce, regular (non-diet) gelatin, frozen juice bars, sherbet, frozen berries

Ask your healthcare team which foods are best for you, how much to eat and how often.
4. Drink extra fluids to stay hydrated. Keep in mind you may need fluids at least every hour.

If you can follow your meal plan: Stick to drinks without calories. Good choices include water and caffeine-free herbal tea.

If you cannot follow your meal plan: You may also need some fluids with calories. These include no sugar added juice, soup, and broth.
5. Follow medication instructions. For insulin and oral diabetes medications, take your normal dose unless otherwise directed by your healthcare provider. Be sure you understand instructions for any changes. For example, your insulin needs may fluctuate.
6. Before taking any over-the-counter medication be sure to check with your healthcare provider. For example, herbal remedies, supplements and certain cold medications may have ingredients that can affect blood sugar levels and/or negatively interact with medications.

Action plan for staying on track

Annual visit with your healthcare provider

When preparing for your appointment, consider following the recommendations below:

Ask your healthcare provider how often you should see them throughout the year

Bring a list of questions you've kept since your last visit

Ask to review your test results and discuss what they mean for you

Make sure you understand the "why" before agreeing to start any new medication, making changes to your treatment plan, and/or having additional medical tests or procedures done

Be sure to take notes at your visit

Health monitoring chart

Be sure to talk with your healthcare team about what your target numbers should be for each health measure listed on the chart provided to the right. Use this chart to keep track of important health test results and your progress. The health monitoring chart is available as an easily accessible resource in the back of this guidebook.

Health monitoring chart		
Test	Target	My results
Visit date		
Fasting glucose		
Non-fasting glucose		
Hemoglobin A1c		
Blood pressure		
Total cholesterol (fasting)		
HDL (fasting)		
LDL (fasting)		
Triglycerides (fasting)		
Total cholesterol / HDL ratio		
Microalbumin (protein in urine)		
Height		
Weight		

Recap for *routine care*

Managing diabetes can often feel like a lot. Work with your healthcare team and stay informed about your treatment plan and medical needs. On the following page are key takeaway reminders covered throughout the guidebook about ways to successfully navigate managing diabetes:



Daily personal care

Follow recommendations for blood sugar monitoring

- Maintain an eating plan that is based on natural, whole foods
- Engage in regular physical movement
- Practice good dental hygiene
- Get adequate sleep/rest
- Practice healthy stress management techniques
- Inspect your feet and skin for any changes

Maintaining routine healthcare visits

See your healthcare provider at least once per year

- Learn what lab (blood/urine) tests are needed and how often
- Keep up with preventive screenings
- See your dentist twice per year for an exam and dental cleaning
- Visit your eye doctor every year for a dilated eye exam
- Have your feet health checked
- Get a flu shot every year

Understanding blood sugar

Know how often you should check your blood sugar

- Find out your target blood sugar levels for your morning fasting blood sugar, and any other times you may check throughout the day
- Learn how to correct low and high blood sugar levels

Knowing your medications

Take your medications as directed by your healthcare provider

- Know what medications you are taking and what they do
- Be aware and informed of any potential side effects

Additional resources

Additional *resources*

Visit the websites of the following organizations to learn more about managing diabetes.

American Diabetes Association

- » *Diabetes Overview*
- » *Healthy Living*

diabetes.org

Association of Diabetes Care and Education Specialist

- » *Living with Diabetes
(Self-Care Behaviors)*
- » *Recursos en español*

diabeteseducator.org

American Heart Association

- » *Healthy Living*
- » *Health Topics*

heart.org

National Institute of Diabetes and Digestive and Kidney Disease

- » *Diabetes and other
health information*
- » *Recursos en español*

niddk.nih.gov



Cut out resources

If helpful, you can tear out the resources, below. As you fill them out, be sure to place them in an easy to access location such as on your fridge or near your desk. These can serve as a quick reference for you and your team of healthcare providers for monitoring and maintaining your health status and treatment plan.



Health monitoring chart		
Test	Target	My results
Visit date		
Fasting glucose		
Non-fasting glucose		
Hemoglobin A1c		
Blood pressure		
Total cholesterol (fasting)		
HDL (fasting)		
LDL (fasting)		
Triglycerides (fasting)		
Total cholesterol / HDL ratio		
Microalbumin (protein in urine)		
Height		
Weight		



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ATENCIÓN: Si habla español, hay disponibles servicios de ayuda con el idioma sin costo alguno para usted. Llame al 1-877-605-3229 (TTY: 711).

注意：如果您說中文，可得到免費語言幫助服務。請致電 1-877-605-3229（聾啞人專用：711）