



# Your Guide to Living Well with Diabetes



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*Aloha,*

At HMSA, we want to help you take control of your health and well-being so you can live your best life every day.

Nearly one in 10 Hawaii adults have been diagnosed with diabetes and almost half are undiagnosed. If you've been newly diagnosed, have been living with type 1 or type 2 diabetes for awhile, or are helping a loved one, HMSA can help you learn how to live a healthier life.

The enclosed guide provides tips and resources to help you and your loved ones manage diabetes. HMSA has a team of health coaches, educators, and other health professionals who are available to provide guidance and support.



Visit [hmsa.com/diabetes](https://hmsa.com/diabetes) or scan this QR code to learn more about managing diabetes, stress, and prescriptions. Download a diabetes action plan, learn how to monitor your blood sugar, see healthy lifestyle tips, and more.

**How to scan the QR code with your mobile device:**

1. Open the camera app.
2. Center the code in your viewfinder.
3. Click the notification.
4. You're in!

If you have questions about HMSA's well-being resources, call HMSA Health and Well-being Support at 1 (855) 329-5461, option 1, Monday through Friday, 8 a.m. to 5 p.m.

Sincerely,

Stefanie Park, M.D.  
Vice President  
Chief Medical Officer



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# What is diabetes?

Diabetes occurs when the level of glucose (sugar) in your blood is too high. Over time, high blood glucose can cause health problems such as damage to your eyes, kidneys, feet, and heart.

Anyone can develop diabetes. But there are some common risk factors such as:

- Family history of diabetes.
- Lack of physical activity.
- Being overweight.
- Being over age 45.
- Being Asian, Pacific Islander, African American, Native American, or Latino.
- History of gestational diabetes.

HMSA's well-being resources can help you set goals and better manage your condition. These resources, which include access to nurses and care coordinators, don't replace care from your doctor. They work with you and your doctor to help you live healthier.

Call 1 (855) 329-5461, option 1, to enroll and speak to a nurse, dietitian, health coach, or social worker. Or visit [hmsa.com/well-being/health-coaching](https://hmsa.com/well-being/health-coaching) to find out how to connect with our HMSA Health and Well-being Support team.

# Checking your blood sugar

## Knowing your blood sugar level can help you manage diabetes.

Checking your blood sugar will help you determine if your diabetes self-management plan is working. It can tell you:

- If you're taking the right amount and type of medications.
- If your activity is at a healthy level.
- If you're getting the right nutrition (e.g., amount of carbohydrates, portion size, etc.).

Keeping your blood sugar within goal range can help decrease your risk of long-term complications that can result from uncontrolled diabetes.

## Who can I ask for help?

Talk to your doctor about finding the right prescription and blood sugar meter. If you're having trouble following the manufacturer's instructions for your meter, your diabetes educator, health care provider, or pharmacist can help.

## How do I use my blood sugar meter?

- Get the meter and supplies ready.
- Wash your hands with soap and water to remove any dirt or food residue that might affect your blood sugar reading.
- Turn the meter on and insert a test strip.
- Using a lancing device, pierce the side of your finger to get a drop of blood.
- Place the drop of blood on or at the side of the strip.
- Watch the display for the result.

## What is a control solution test?

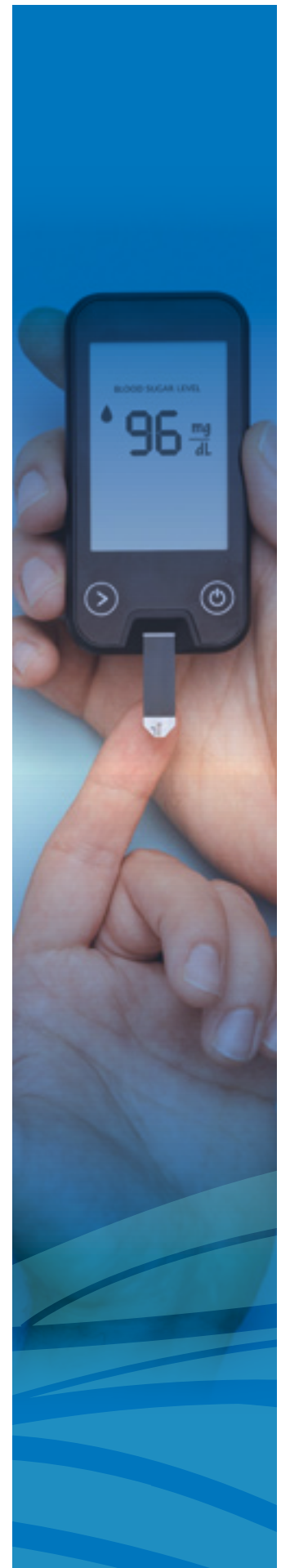
A control solution test can help determine if the test strip and meter are working properly. The control solution comes with the meter. It's important to perform this test:

- Whenever you open a new vial of test strips.
- If you have an unexpected test result.
- If your blood sugar meter is damaged or dropped.

## When is the best time to check my blood sugar level?

Ask your doctor or diabetes care team how often you should check your blood sugar. Testing your blood sugar at different times of the day will tell you if you're within your blood sugar goal and will help you determine what may be affecting your blood sugar level. Here are the best times to check:

- When you wake up. Testing your blood sugar shortly after waking, but before eating or drinking anything other than plain water, gives your fasting blood sugar result.
- Before meals. This will help determine if you need to adjust your medication.
- One to two hours after the start of a meal. Find out if your food portions and blood sugar medication(s) are balanced.
- Before, during, and after physical activity. This will help you understand how activity affects your blood sugar level.
- At bedtime. See if you need to adjust your medication or have a snack.



## What are my blood sugar goals?

Below are the recommended blood sugar goals for most adults with diabetes. However, your doctor or health care team may recommend specific blood sugar goals better suited for you.

Before meals:

80 to 130 mg/dL or \_\_\_\_\_ to \_\_\_\_\_ mg/dL.

One to two hours after the start of a meal:

Less than 180 mg/dL or less than \_\_\_\_\_ mg/dL.

## What is an A1C test?

The A1C test measures your average blood sugar level over a three-month period. It will tell you how well your diabetes self-management plan is controlling your blood sugar level over time. The closer your A1C is to goal, the less likely you are to develop long-term complications from uncontrolled diabetes. For most people with diabetes, the goal is to keep your A1C below 7%. However, it's best to check with your doctor to see if there's an individualized goal for you.

You should get your A1C test done:

- At least two times a year if your blood sugar is within goal.
- Four times a year if you're not meeting your goals or if your treatment plan has changed.
- As often as your doctor recommends.

An A1C of:	is equal to an average blood sugar level of:
6%	126 mg/dL
7%	154 mg/dL
8%	183 mg/dL
9%	212 mg/dL
10%	240 mg/dL
11%	269 mg/dL
12%	298 mg/dL

## My A1C goal

Less than 7% or \_\_\_\_\_

## How should I track my blood sugar level?

A blood sugar meter will keep track of your level for you, so it's helpful to take your meter when you visit your doctor. You can also keep track using a simple log or a mobile or web app. Sharing your log with your health care team is a good idea.

## When do I need to see a doctor?

Call your doctor if:

- Your blood sugar is higher than your goal for three days.
- Your blood sugar is higher than your goal and you're experiencing symptoms.

Seek immediate treatment if:

- You experience shortness of breath.
- Your breath smells sweet.
- You're nauseated, vomiting, or your mouth is very dry.

## What's my action plan?

Talk to your doctor and create an action plan so you'll know what to do if you experience hyperglycemia.

1. Call my doctor if my blood sugar level is above \_\_\_\_\_ mg/dL.

2. Seek immediate treatment if \_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_



## What should I do if my blood sugar isn't in range?

Call your doctor if your blood sugar isn't in range, fluctuates greatly, or you're experiencing symptoms.

Hyperglycemia happens when your blood sugar is too high. You may feel normal, but over time this can lead to health complications such as stroke, heart disease, kidney disease, and blindness. Hypoglycemia happens when your blood sugar gets too low. You may feel normal, but many people experience symptoms such as weakness, dizziness, feeling sweaty, confusion, and irritability. It's important to treat hypoglycemia accordingly to prevent losing consciousness.

Call your doctor if you experience:

- Thirst that can't be quenched.
- Increased urination or hunger.
- Headaches.
- Weakness or fatigue.
- Unexplained changes in weight.

The inability to control your blood sugar can happen for many reasons, including:

- Not taking your medication correctly.
- Stress.
- Recent illness.
- Other medications you're taking.
- Diet and exercise.

Communicating with your doctor is an important part of controlling your blood sugar. Together, you can create a care plan to improve your health and quality of life and prepare for possible diabetic emergencies.



# Tips for taking your medications

Managing prescriptions can be confusing. But taking your medications as prescribed is one of the best ways to stay healthy. Here are a few tips to get the most out of your medications. Be sure to check with your doctor if you have any questions.



Take your medications exactly as prescribed at the same time every day.



Use a pill organizer so it's easy to see if you forgot anything.



Put a reminder someplace you can't miss it — like on the refrigerator or your bathroom mirror.



Write down on a calendar when to take medications.



Sign up for automatic refills at the pharmacy.



Ask the pharmacist if your medication can be sorted into dosing packs.



Set an alarm or download a reminder app on your smartphone.

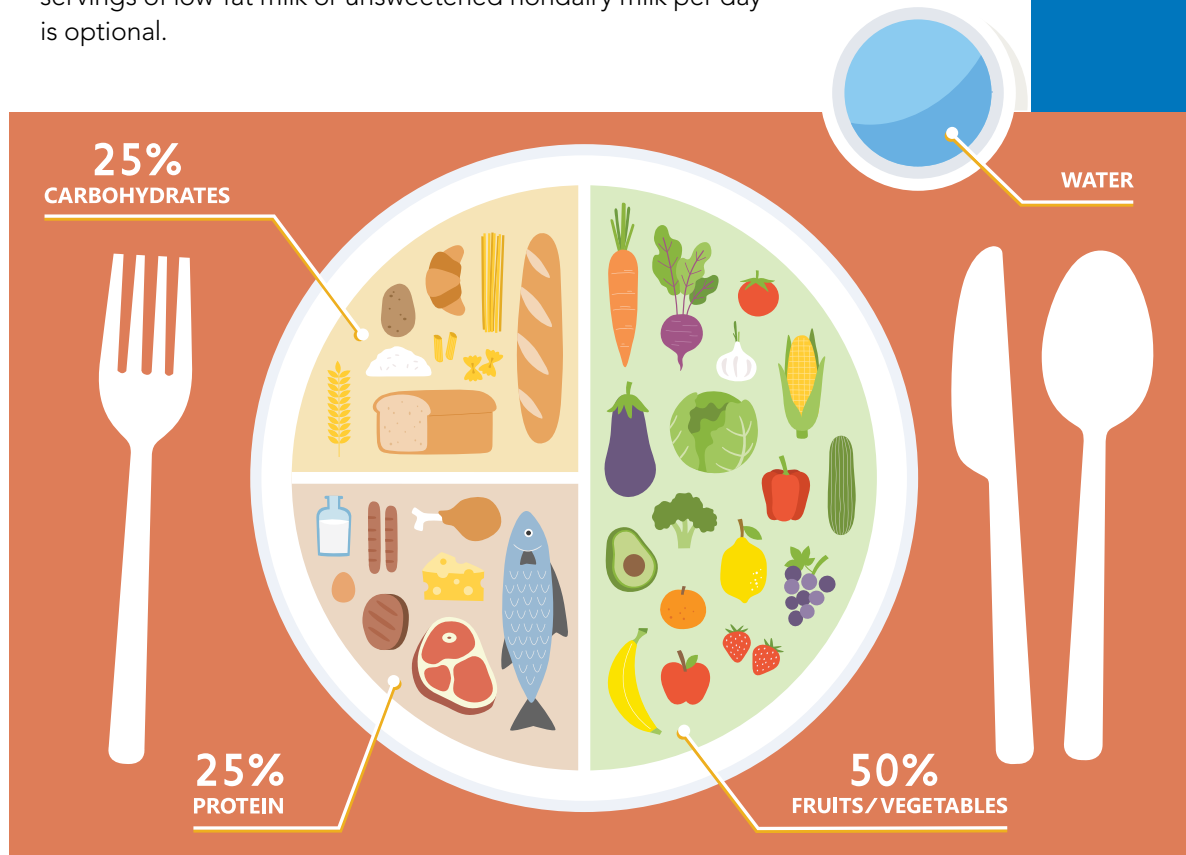


Exchange daily reminder messages with friends or family members who also take medications.



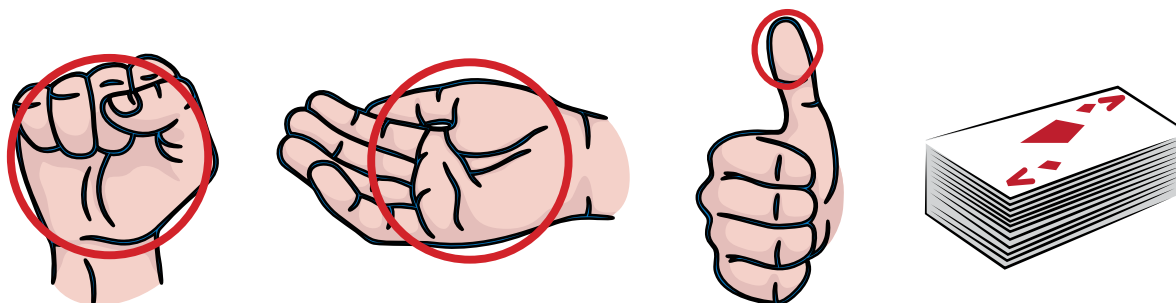
# Planning meals

- Half of your plate should be fruit and/or nonstarchy vegetables.
- A quarter of your plate will be a starchy vegetable, an appropriate serving of whole grains, or bread.
- A quarter of your plate will be a lean protein or vegetarian selection like egg, cheese, beans, or lentils.
- Water or another zero-calorie beverage is preferred. Up to two servings of low-fat milk or unsweetened nondairy milk per day is optional.



## How to Estimate Portion Sizes

One easy way to estimate portion sizes is by using your hands. Everyone's hands are different, so measure portions first and compare them to your hands to get an idea of what they should look like.



Use these guidelines when estimating portions:

- 2 cups will fit into your hands if they were cupped together.
- 1 cup, or 8 ounces, is equivalent to your fist. If you have large hands, your fist might equal 10 ounces or slightly more than a cup.
- 1/2 cup, or about 4 ounces, will fit in one cupped palm.
- 3 ounces is about the size of your palm or a deck of cards.
- 1 tablespoon is the size of the tip of your thumb.
- 1 teaspoon is the size of the tip of your index finger.

## Reading Nutrition Labels

- Check the serving size. The information on the label is for the serving size indicated. If you eat double the serving size, everything on the label is doubled.
- Total carbohydrates include sugar, starch, and fiber. Use the total grams of carbs per serving when counting carbs.
- Choose foods with less added sugar.
- Percent daily value can be used as a guide. Aim for less than 5% for nutrients you want to limit such as sodium and saturated fat. Aim for 20% or more for nutrients you want to get more of such as fiber, vitamin D, calcium, and iron.

<b>Nutrition Facts</b>	
8 servings per container	
<b>Serving size</b>	<b>1 cup (68g)</b>
<b>Amount per serving</b>	
<b>Calories</b>	<b>370</b>
<b>% Daily Value*</b>	
<b>Total Fat</b> 5g	<b>7%</b>
Saturated Fat 1g	<b>2%</b>
Trans Fat 0g	<b>0%</b>
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 150mg	<b>6%</b>
<b>Total Carbohydrate</b> 48g	<b>15%</b>
Dietary Fiber 5g	<b>10%</b>
Total Sugars 13g	<b>26%</b>
Includes 10g Added Sugars	<b>20%</b>
<b>Protein</b> 12g	
Vitamin A 10mcg	<b>20%</b>
Vitamin C 1mg	<b>100%</b>
Vitamin D 1mcg	<b>50%</b>
Vitamin E 2mcg	<b>100%</b>
Riboflavin 5mcg	<b>75%</b>
Folic Acid 200mcg	<b>60%</b>
Thiamin 2mcg	<b>35%</b>
Vitamin B12 5mcg	<b>100%</b>
Zinc 7mg	<b>50%</b>
Biotin 300mcg	<b>100%</b>
Calcium 50mcg	<b>25%</b>
Phosphorus 90mcg	<b>90%</b>
Magnesium 400mcg	<b>100%</b>
Chromium 75mcg	<b>80%</b>
Potassium 5g	<b>100%</b>

\* 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.

## Nonstarchy vegetables

Eating vegetables is a great way to fill up on low-calorie, nutrient-dense foods when you're trying to manage your weight. Remember to limit the amount and portion size of starchy vegetables to one or two servings each day.

Make nonstarchy vegetables your friend.

Nonstarchy vegetables 1/2 cup cooked or 1 cup raw = 15 calories	Starchy vegetables 1/2 cup cooked or 1 cup raw = 80 calories
Carrots	Beans
Asparagus	Pumpkin
Greens (turnips, collard, kale, mustard, spinach, Swiss chard)	Sweet Potatoes
Broccoli	Potatoes
Brussels Sprouts	Yams
Cauliflower	Green Peas
Celery	Butternut Squash
Cucumber	Corn
Eggplant	Acorn Squash
Mushrooms	Beets
Lettuce	Parsnips
Zucchini	Lentils
Peppers	Plantains



## Whole grains and starchy vegetables

- Remember that most of the carbohydrates you eat quickly turn into sugar.
- Choose whole grains. The extra fiber and protein will slow absorption of sugar in your bloodstream.

Limit starchy vegetables to a quarter of your plate or bowl. An appropriate serving size is:

- 1/2 to 2/3 cup cooked whole-grain pasta, brown rice, or starchy carbs.
- 1/2 medium potato, sweet potato, or yam.
- When counting carbohydrates, one serving equals about 15 grams of carbs.
- Read nutrition labels and measure your food accordingly.

## Lean proteins

Protein doesn't raise your blood sugar significantly:

- Choose lean cuts.
- Choose proteins like:
  - Eggs, poultry, low-fat dairy, lean beef, or pork.
  - Seafood and shellfish.
- Choose preparation methods like baking, grilling, or broiling.
- Eat plant-based whole foods more often:
  - Beans, peas, lentils, tofu, edamame, soy milk, nuts, and seeds.



## Choose fats wisely

Like proteins, fats don't raise your blood sugar significantly and can slow absorption of sugar into the bloodstream after meals.

- Look for unsaturated fats:
  - Fish, nuts, seeds, avocados, vegetable oils (e.g., olive, high-oleic canola and sunflower, grapeseed, corn, peanut).
  - Oils are calorically dense. Use sparingly throughout the day. One tablespoon equals 120 calories.
- Limit saturated fats including visible fat on meat, lard, full-fat dairy, butter, coconut, and palm oil.
- Avoid trans fats typically found in processed, packaged foods. To identify trans fats, look for hydrogenated or partially hydrogenated oil in the ingredient list.



# Exercise

Regular physical activity is an important part of your diabetes self-management plan. When you're active, muscles are more sensitive to insulin and use glucose for energy. Activity can decrease your blood sugar for up to 24 hours. The goal is 150 minutes of moderate exercise per week. Break it up into 30 minutes, five days a week or choose the times that work for you. Most importantly, find an activity you enjoy.

If you haven't been active, getting started safely is important. Testing your blood sugar before and/or after exercise can help you learn how your body responds to it. If you're taking insulin or other oral medications that increase your insulin, checking your blood sugar before and after exercise can help to prevent low blood sugar (hypoglycemia).

Talk with your doctor before starting an exercise program. Warm up and cool down for five minutes. Start slowly and include light activities such as walking. Stay hydrated and drink water before, during, and after any activity. Wear comfortable, well-fitting shoes with clean socks. Have a source of carbohydrates available. Carry your smartphone with you and wear a medical ID.



150 min./week

.....



At least 2x/week

.....



Don't forget to stretch!

.....

## Time saver: High intensity fitness circuit in minutes

### What is it?

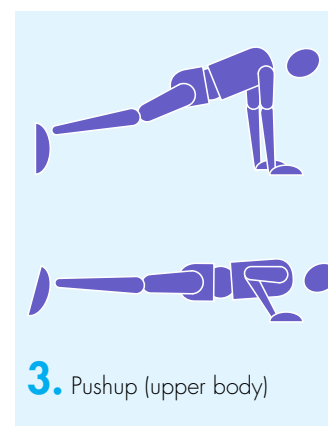
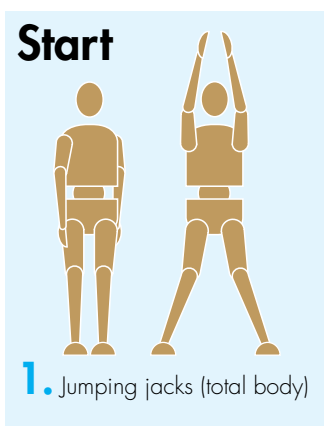
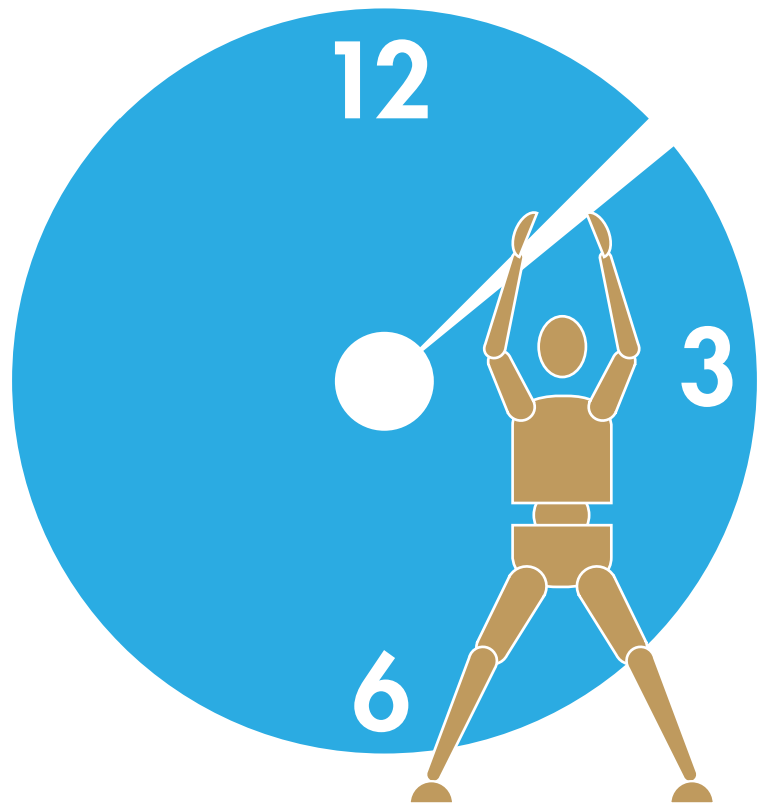
This workout involves completion of 12 key aerobic and strengthening exercises of all major muscle groups in rapid succession with 10 seconds of rest between exercises.

### What does it feel like?

Each exercise takes 30 seconds and is performed at a high intensity. Your effort level during the seven minutes should be at 8 out of 10 points, where 0=rest and 10=highest level of effort you can perform. You'll be breathing hard and your heart rate will increase.

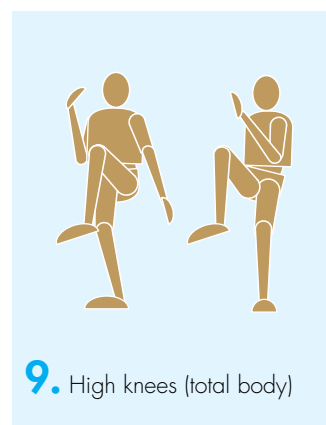
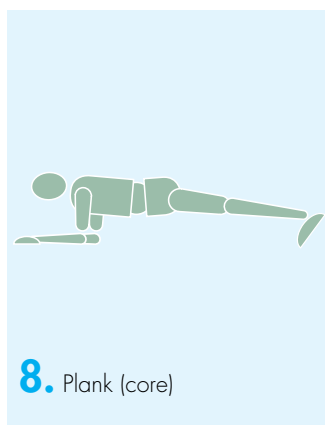
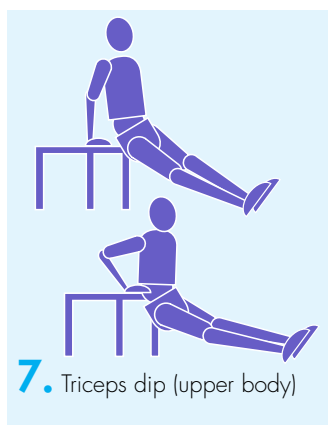
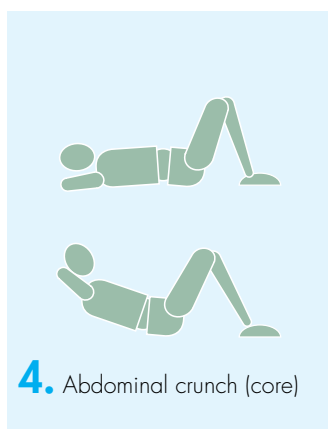
### Special consideration and safety

- The form of each exercise is a priority for safety and optimal fitness gains.
- Avoid holding your breath during any exercise.
- American College of Sports Medicine recommends doing an appropriate warmup and cool down before and after any exercise session.



Courtesy of American College of Sports Medicine





 Aerobic Exercise

 Strengthening Exercise

 Core Stability

**Source:** ACSM's Health & Fitness Journal®.  
Kilka and Jordan, High-intensity circuit training  
using body weight: maximum results with  
minimal investment. 2013; 17(3):8-13.



# Managing diabetes when you're sick

We all do our best to stay healthy and be prepared if we get sick. When you have diabetes, it's even more important to know what to do. When you don't feel well, the stress of being sick can cause your blood sugar to rise even if you're eating and exercising as usual.

Have a sick day plan that includes your physician's phone number and details on how your medications and meals may need to change. Include information on how often to check your blood sugar, when to check ketones, and when to call your doctor.

The goal of sick-day management is to prevent a minor illness from turning into a major issue.

## **A sick-day plan:**

- Continue to take your diabetes medication. Don't stop your insulin or change doses that your doctor prescribed without talking to your doctor first.
- Test your blood sugar level every two to four hours and keep track of the results.
- Call your doctor if your blood sugar level is high (240 mg/dL or more) for more than six hours.
- Monitor your urine ketones using ketone urine strips that detect developing diabetic ketoacidosis (DKA). This is especially useful if you have type 1 diabetes. When your body doesn't have enough insulin, it starts breaking down fat as fuel, which produces ketones. When too many ketones are produced too quickly, they can cause DKA, which is very serious and can cause coma or death. If you think you have DKA, use an over-the-counter kit to test your urine. If you have moderate to high ketone levels in your urine, call your doctor right away.
- Stay hydrated. Drink 8 ounces of water or sugar-free and caffeine-free liquids. If you can't drink a full cup of liquid, take frequent sips of it or have a sugar-free popsicle or a serving of sugar-free gelatin.
- Try to follow a regular meal plan. If you're unable to eat, substitute regular carbohydrate intake with liquids such as regular soda, gelatin, popsicles, Gatorade or Pedialyte, sherbet, or soup.
- Rest.
- Check your temperature for fever.
- Involve a family member or friend in your sick-day plan. Be sure there's someone available to check on you and help you if needed.
- Don't take any over-the-counter medicines without talking with your doctor. Many nonprescription medicines affect your blood sugar level.

**Call your doctor or go to an emergency room if:**

- You have trouble breathing, severe pain in your stomach, or chest pain.
- You have moderate to high ketone levels in your urine.
- You're vomiting and/or have had diarrhea for more than six hours.
- You lose 5 pounds or more during the illness.
- Your blood sugar is lower than 60 mg/dL or stays above 240 mg/dL.
- You feel too sick to eat normally and are unable to keep food down for more than 24 hours.
- Your temperature is over 101°F for 24 hours.
- You feel sleepy or can't think clearly.

My doctor's phone number: \_\_\_\_\_

Physician's exchange or answering service: \_\_\_\_\_

Nearest urgent care center: \_\_\_\_\_

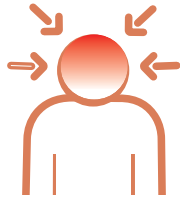
Nearest emergency room: \_\_\_\_\_





# Healthy ways to manage stress

Everyone experiences stress from time to time. Stress is how our body and mind react to help us survive when we're faced with a demanding or dangerous situation.



Constant, prolonged stress can affect your emotional and physical health. Long-term stress can overwhelm you with feelings such as fear, anger, loneliness, or depression. Physically, long-term stress may contribute to conditions such as heart disease and high blood pressure. If you have diabetes, stress can cause blood sugar to increase. That's why it's important to manage or cope with stress.

Unhealthy coping methods include avoiding loved ones and friends, overeating, drinking alcohol, or smoking. One healthy coping method is having a strong support system.

Family, friends, and loved ones can help you get through tough times. Talking with other people in support groups who have similar challenges and understand what you're going through can help you feel less lonely and overwhelmed.



Here are some tips to help you manage stress.

## Ohana-style stress management

- Have family gatherings in person or virtually.
- Call a friend or family member to ask for help or support.
- Set aside one day a week to spend time with family and friends.
- Help those who have helped you; helping others can help you feel better.
- Go to the beach or park to play and exercise together.



## Do it yourself

- Engage in physical activity, such as exercising, doing chores around the house, cleaning the yard, walking your dog, or fishing.
- Control the things you can and don't dwell on the things you can't.
- Take deep breaths to relax while sitting in traffic, before meetings, or when waiting in line.
- Watch a funny movie or TV show.
- Decrease or quit drinking and smoking.
- Get six to eight hours of sleep every night.
- Make a list of goals. Focus on one big task at a time or a group of small tasks that can be done together.





- Participate in fundraisers or do volunteer work.
- Try not to worry too much or overthink things. Relax and enjoy the beautiful scenery and activities that Hawaii has to offer — enjoy a sunrise or sunset, watch the ocean, or meditate under a tree to help clear your mind.
- Think positive and focus on your strengths.
- Tell yourself, “I can do this,” “It’s OK to make mistakes,” and “I need to take care of myself and my needs today.”
- Listen to soothing music, such as Hawaiian, classical, or instrumental music.
- Write in a journal regularly.
- Write down three things you’re grateful for daily or discuss positives of the day or week.
- Engage in your favorite hobby or start a new one.
- Spend time with your pet. If you don’t have a pet, volunteer to work with animals or go to a dog park.
- Stroll through the grass or walk in the sand.
- Express yourself through a creative outlet such as drawing, painting, woodwork, sewing, gardening, singing, or dancing.



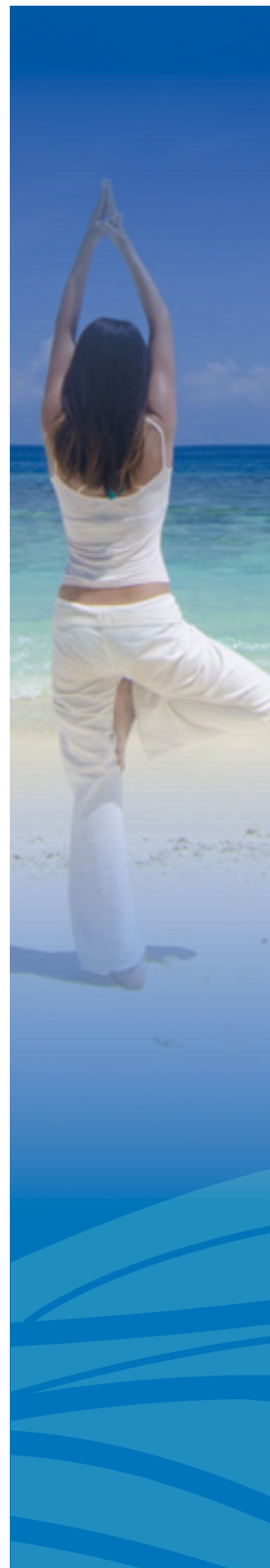
There may be times when no matter what you do, you still feel overwhelmed or sad. It’s important to talk to your doctor if you:

- Aren’t interested in activities that you previously enjoyed.
- Sleep most of the day or have trouble sleeping.
- Don’t see the benefits of taking care of yourself.
- Feel like it’s too difficult to manage your health.
- Feel like you can’t take care of yourself.



We’re here to help support you.

- To connect with an HMSA Health and Well-being Support nurse or health coach, visit **[hmsa.com/well-being/health-coaching/](https://hmsa.com/well-being/health-coaching/)**.
- For behavioral health support, visit **[hmsa.com/eutf](https://hmsa.com/eutf)**. Click the Member Resources tab then Behavioral Health Program to learn more.



# SMART goal guide

## Set goals to focus on what matters

No matter what you want to accomplish, goal setting is an important first step. Here's how to set SMART goals:

- **Specific:** Set goals that are clear and easy to understand.
- **Measurable:** Include a number in your goal to help you track your progress.
- **Achievable:** Set goals that push you enough to motivate you, but are realistic so that you don't get discouraged.
- **Relevant:** Set goals that are based on your interests.
- **Timely:** Give your goal a deadline.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

My SMART goals:

1. \_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_
3. \_\_\_\_\_  
\_\_\_\_\_

Long-term goal:

\_\_\_\_\_

My care/case manager's name: \_\_\_\_\_

My care/case manager's phone number: \_\_\_\_\_

My next appointment: \_\_\_\_\_  
Date Time





# Frequently asked questions

## What's the difference between type 1 and type 2 diabetes?

- Type 1 diabetes: Commonly referred to as juvenile diabetes because it usually develops in children and teenagers. The body's immune system attacks the insulin-producing cells of the pancreas, decreasing the amount of insulin available to the body.
- Type 2 diabetes: Also called adult-onset diabetes because it typically develops after the age of 35. However, due to increased rates of obesity, more diagnoses are occurring in younger people. People with type 2 diabetes can produce insulin but their bodies can't use it as well (insulin resistance).

## What is prediabetes?

Before people develop type 2 diabetes, they almost always have prediabetes, which means their blood sugar level is higher than normal but not yet high enough to be diagnosed as diabetes. This condition puts you at a higher risk for developing type 2 diabetes and cardiovascular disease. Lifestyle changes can help prevent type 2 diabetes.

You have prediabetes when one of the following happens:

- Your A1C test is between 5.7% and 6.4%.
- Your fasting blood glucose is between 100 and 125 mg/dL.
- Your oral glucose tolerance test is between 140 and 199 mg/dL.

## What is uncontrolled diabetes?

Uncontrolled diabetes is diabetes that isn't properly treated and managed. The result is blood sugar that's too high and remains high. Blood sugar that's too high for too long can cause long-term health problems, such as damage to eyes or kidneys.

## What are the symptoms of uncontrolled diabetes?

Diabetes often doesn't cause symptoms in its early stages. People who think they might have diabetes should visit their doctor for testing and diagnosis. They might have some or none of the following symptoms:

- Frequent urination.
- Excessive thirst.
- Unexplained weight loss.
- Extreme hunger.
- Sudden vision changes.
- Tingling or numbness in hands or feet.
- Feelings of fatigue much of the time.
- Dry skin.
- Sores that are slow to heal.
- Frequent and recurrent infections.

## What are the recommended blood sugar levels for people who have diabetes?

Target blood sugar levels for people with diabetes vary during the day, according to the American Diabetes Association:

- When you wake up and before meals:  
80 to 130 mg/dL
- Two hours after starting a meal:  
Below 180 mg/dL

If you have diabetes, talk to your doctor about whether these targets are right for you.

## Why is my blood sugar high in the morning?

There can be various reasons for an early rise in glucose. It happens when your body produces a surge of hormones to help you wake up. During the day, activity tends to keep blood sugar under control if you have a healthy, active lifestyle. If you're using insulin, discuss the early rise in glucose with your doctor, who may need to adjust your dosage.

## What is the A1C test?

The A1C (also called HbA1c) is a blood test that shows how blood sugar levels were controlled over the previous two to three months. Your doctor should order it at least twice a year. The goal for most adults with diabetes is an A1C that's less than 7% and may vary by age and other risk factors.

## Do I need to fast before an A1C test?

No, fasting isn't required for an A1C test because the test measures your average blood glucose levels over the past two to three months.

## Can stress increase blood sugar levels?

Yes. Stress can elevate blood sugar. If you need insulin when you're otherwise unstressed, you may need more at these times. Be sure to monitor yourself in all situations as closely as you can.

## Does hot or cold weather affect blood sugar levels?

High heat can lead to dehydration, which can cause high blood sugar. It takes six molecules of water to remove one molecule of sugar from the bloodstream, so the higher the blood sugar level, the more water you need to drink. Extreme hot or cold temperatures can cause changes in the vascular system that can affect blood sugar and cause reactions.

## How do you treat type 2 diabetes?

When you have type 2 diabetes, you need to eat a healthy diet, stay physically active, and lose extra weight. If these lifestyle changes don't control your blood sugar, you also may need to take medication, including insulin.

Eating a healthy diet, being physically active, and losing extra weight is the first line of therapy. Diet and exercise are the foundation of all diabetes management plans because it makes your body's cells respond better to insulin by decreasing insulin resistance and lowers blood sugar levels.

If you can't normalize or control your blood sugar with lifestyle changes, the next treatment phase is taking medication in the form of a pill or injection.

## Can type 2 diabetes go away? And if my blood sugar becomes normal, do I still have diabetes?

It won't go away. Type 2 diabetes can only be controlled with a treatment plan that includes proper diet, exercise, and medications. A normal blood sugar level means that your treatment plan is working. You'll need to continue your treatment or your blood sugar will go back up.

## Will I need to take insulin if I have type 2 diabetes?

Maybe. Historically, 30% or more of people with type 2 diabetes required insulin therapy. However, there are many new medications available that may delay or prevent the need for insulin therapy. It's expected that fewer and fewer individuals will need insulin therapy to control their blood sugar.



### **If I have type 2 diabetes and take insulin, do I have to take it forever?**

Not necessarily. If you can lose weight, change your diet, increase your activity level, and/or change your medications, you may be able to reduce or stop insulin therapy. Under certain circumstances, you may only need insulin temporarily, such as during pregnancy or acute illness, after surgery, or when treated with other medications that increase your body's resistance to insulin (such as prednisone or steroids). Insulin therapy can often be stopped after the event or stress is over.

### **Will exercise help me manage diabetes?**

Exercise is beneficial in managing type 2 diabetes. Always talk to your doctor about exercise guidelines to exercise safely and reduce risks.

### **Why is my blood sugar higher after exercise?**

Exercise is a stressor, so blood sugar will be higher immediately after your session. Wait an hour after you exercise and see if you get the same results.

### **If I have type 2 diabetes, can I stop taking diabetes medications if I eliminate soda, candy, and cookies from my diet?**

If you eliminate concentrated sources of carbohydrates (foods that turn into sugar in your bloodstream) like candy, cookies, or sugary drinks, you may be able to reduce or eliminate the need for diabetes medications. Everyone with type 2 diabetes will benefit from an improved diet, but you may still need other interventions, such as increased physical activity, weight loss, or medications to keep your blood sugar in the target range. Check with your doctor about adjusting your diabetes medications if you change your diet.

### **Are my children at risk?**

The risk is highest when multiple family members have diabetes and children are overweight and don't exercise.

### **Can type 2 diabetes be prevented?**

Although you can't change your genetic risk for developing type 2 diabetes, even modest exercise, eating a healthy diet, and weight loss can delay or prevent the development of type 2 diabetes.

# Diabetes Resources

These plan benefits are available to you at no additional cost:



## **Annual preventive checkup**

This annual checkup with an HMSA participating primary care provider (PCP) will assess your overall health. If you don't have a PCP, go to [hmsa.com/eutf](https://hmsa.com/eutf) and click Find a Doctor. Or call (808) 948-6079 or 1 (800) 776-4672.



## **A dedicated health care team**

A team of health care professionals, registered dietitians, and health coaches can supplement the care you receive from your PCP. To learn more, call 1 (855) 329-5461, option 1, Monday through Friday, 8 a.m. to 5 p.m. Visit [hmsa.com/well-being/condition-care-program](https://hmsa.com/well-being/condition-care-program) to enroll.



## **Referrals to behavioral health care providers**

Carelon Behavioral Health<sup>SM</sup> and HMSA can help you alleviate the stress of finding a therapist or counselor. To learn more about getting a referral to behavioral health care providers, resources, and services, call Carelon at (808) 695-7700 or 1 (855) 856-0578.



## **Health education workshops**

Participate in any of our virtual fitness, nutrition, stress management, or other health and well-being workshops. To find a workshop and register, go to [hmsa.com/healtheducation](https://hmsa.com/healtheducation).



## **HMSA365 discounts**

Good health goes beyond visits to your PCP. Get discounts on products and services for your health and well-being, including specialty health care practitioners, gym memberships through Active&Fit Direct<sup>TM</sup>, and health and fitness brands through ChooseHealthy<sup>®</sup>. Learn more at [hmsa.com/hmsa365](https://hmsa.com/hmsa365).



## **Island Scene**

HMSA's health and well-being magazine has local stories about all the things that make life worth living. As an HMSA member, you'll receive a copy at no added cost. Or visit [islandscene.com](https://islandscene.com) for more stories, tips, and videos.



## **Online**

Visit [hmsa.com/diabetes](https://hmsa.com/diabetes) for additional tools and resources to help you learn more and manage diabetes. You can also find an interactive version of this workbook.

Be sure to check your *Guide to Benefits* for your plan's specific benefits.

Carelon Behavioral Health<sup>SM</sup> is an independent company providing behavioral health utilization management and quality improvement services on behalf of HMSA.

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The ChooseHealthy program is provided by American Specialty Health Group Inc. and ASH Technologies Inc. (dba ASH Technologies of Delaware Inc. in the state of Pennsylvania); all are subsidiaries of American Specialty Health Incorporated, a national provider of fitness, health education, musculoskeletal provider networks, and health management programs. The Active&Fit Enterprise program is provided by American Specialty Fitness Inc. ChooseHealthy and Active&Fit Enterprise are trademarks of ASH and used with permission herein.

## Additional Resources



**American Diabetes Association**  
[diabetes.org](https://diabetes.org)



**Association of Diabetes Care & Education Specialists**  
[diabeteseducator.org/living-with-diabetes/tools-and-resources](https://diabeteseducator.org/living-with-diabetes/tools-and-resources)



**Centers for Disease Control and Prevention Diabetes Resources**  
[cdc.gov/diabetes/index.html](https://cdc.gov/diabetes/index.html)



**CVS Caremark Free Diabetic Meter Program for eligible members**  
[info.caremark.com/dig/managingdiabetes](https://info.caremark.com/dig/managingdiabetes)



**Healthy Hawaii Initiative – Diabetes Prevention**  
[healthyhawaii.com/prevent-diabetes-2](https://healthyhawaii.com/prevent-diabetes-2)



**Johns Hopkins Patient Guide to Diabetes**  
[hopkinsdiabetesinfo.org](https://hopkinsdiabetesinfo.org)



**Medline Plus**  
[medlineplus.gov/diabetes.html](https://medlineplus.gov/diabetes.html)



**National Institute of Diabetes and Digestive and Kidney Diseases**  
[niddk.nih.gov/health-information/diabetes/overview](https://niddk.nih.gov/health-information/diabetes/overview)



**State of Hawaii, Department of Health, Diabetes**  
[health.hawaii.gov/diabetes](https://health.hawaii.gov/diabetes)

# We're here with you

[hmsa.com/eutf](https://hmsa.com/eutf)

**Call** (808) 948-6499 or 1 (800) 776-4672 Monday through Friday, 7 a.m. to 7 p.m. and Saturday, 9 a.m. to 1 p.m.

**Or meet** with knowledgeable, experienced health plan advisers. We'll answer questions about your health plan, give you general health and well-being information, and more. Hours of operation may change. Please go to [hmsa.com/contact](https://hmsa.com/contact) before your visit.

## **HMSA Center in Honolulu**

818 Keeaumoku St.

Monday–Friday, 8 a.m.–5 p.m. | Saturday, 9 a.m.–2 p.m.

## **HMSA Center in Pearl City**

Pearl City Gateway | 1132 Kuala St., Suite 400

Monday–Friday, 9 a.m.–6 p.m. | Saturday, 9 a.m.–2 p.m.

## **HMSA Center in Hilo**

Waiakea Center | 303A E. Makaala St.

Monday–Friday, 9 a.m.–6 p.m. | Saturday, 9 a.m.–2 p.m.

## **HMSA Center in Kahului**

Puunene Shopping Center | 70 Hookele St., Suite 1220

Monday–Friday, 9 a.m.–6 p.m. | Saturday, 9 a.m.–2 p.m.

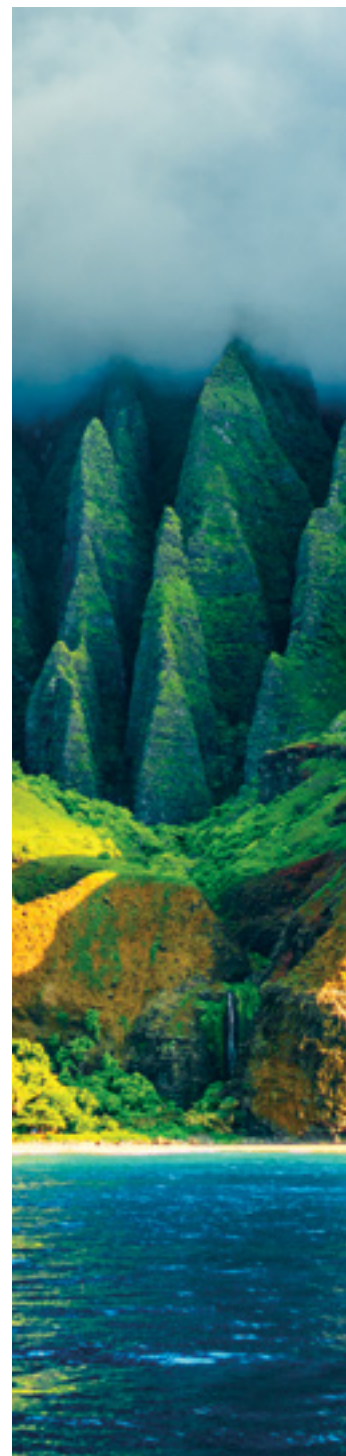
## **HMSA Center in Lihue**

Kuhio Medical Center | 3-3295 Kuhio Highway, Suite 202

Monday–Friday, 8 a.m.–4 p.m.

[hmsa.com](https://hmsa.com)

     [@hmsahawaii](https://twitter.com/hmsahawaii)



Together, we improve the lives of our members and the health of Hawaii.  
Caring for our families, friends, and neighbors is our privilege.

