Cultivating Health®

Managing Diabetes

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Cultivating Health® Managing Diabetes

Kaiser Permanente
Health Engagement and Wellness Services
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KAISER PERMANENTE®

Health Engagement and
Wellness Services

Cultivating Health®

Congratulations! Choosing Cultivating Health® *Managing Diabetes* is an important step to better manage your diabetes and improve your health.

You will learn skills for diabetes self-management and healthy living, including:

- Blood glucose monitoring
- Physical activity
- Healthy eating
- Reducing risks
- Healthy coping

Changing old habits is not easy and requires patience. This will involve learning new skills and making some lifestyle changes.

Be kind to yourself! Taking small steps is more effective than trying to make big changes all at once.

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TOPIC 1

About **diabetes**

About **diabetes**

More than 100 million Americans have diabetes or prediabetes.

Diabetes is a chronic disease. Right now, there is no cure for it. Diabetes will touch every part of your life at some point, *but it does not have to control your life.*

Managing your diabetes means managing your blood sugar. You will probably have to make some lifestyle changes, and maybe take some medications, to reach this goal. If you do, you should feel better, have more energy, sleep better, and reduce your risk for potential long-term complications.

Types of **diabetes**

TYPE 1	RISK FACTORS
• An autoimmune disease that "knocks out" the beta cells of the pancreas. • People with type 1 diabetes either make very little insulin or none at all, so they must inject insulin. • Type 1 used to be called "juvenile-onset diabetes." • Although most people diagnosed with type 1 diabetes are young, about 1/3 of people are diagnosed as adults. • About 1 in every 10 people diagnosed with diabetes has type 1.	• Family history of type 1 diabetes • Environmental factors • Ethnicity/geography (Scandinavia)
TYPE 2	**RISK FACTORS**
• A progressive condition – your pancreas still makes insulin, but over the years, it makes less and less. • Your body cells are not as sensitive to the insulin you are making. This is called insulin resistance. • It can be managed with lifestyle changes, oral medications, insulin, or a combination of these. • Type 2 diabetes used to be called "adult-onset diabetes," but we see it in younger people too. • Type 2 diabetes does not turn into type 1 diabetes.	• Family history of diabetes • Ethnicity (African American, Native American, Latino, Asian, or Pacific Islander heritage) • Age over 45 years • History of gestational diabetes • Polycystic ovarian syndrome

Other types of diabetes

- Gestational diabetes occurs during pregnancy. Once the baby is born, the mother usually no longer has diabetes. But she is at greater risk of developing type 2 diabetes later in life.
- Prediabetes means that your blood sugar is higher than normal, but not high enough to be diagnosed as type 2 diabetes. People with prediabetes are at a higher risk for developing type 2 diabetes.

Risk factors we can do something about:

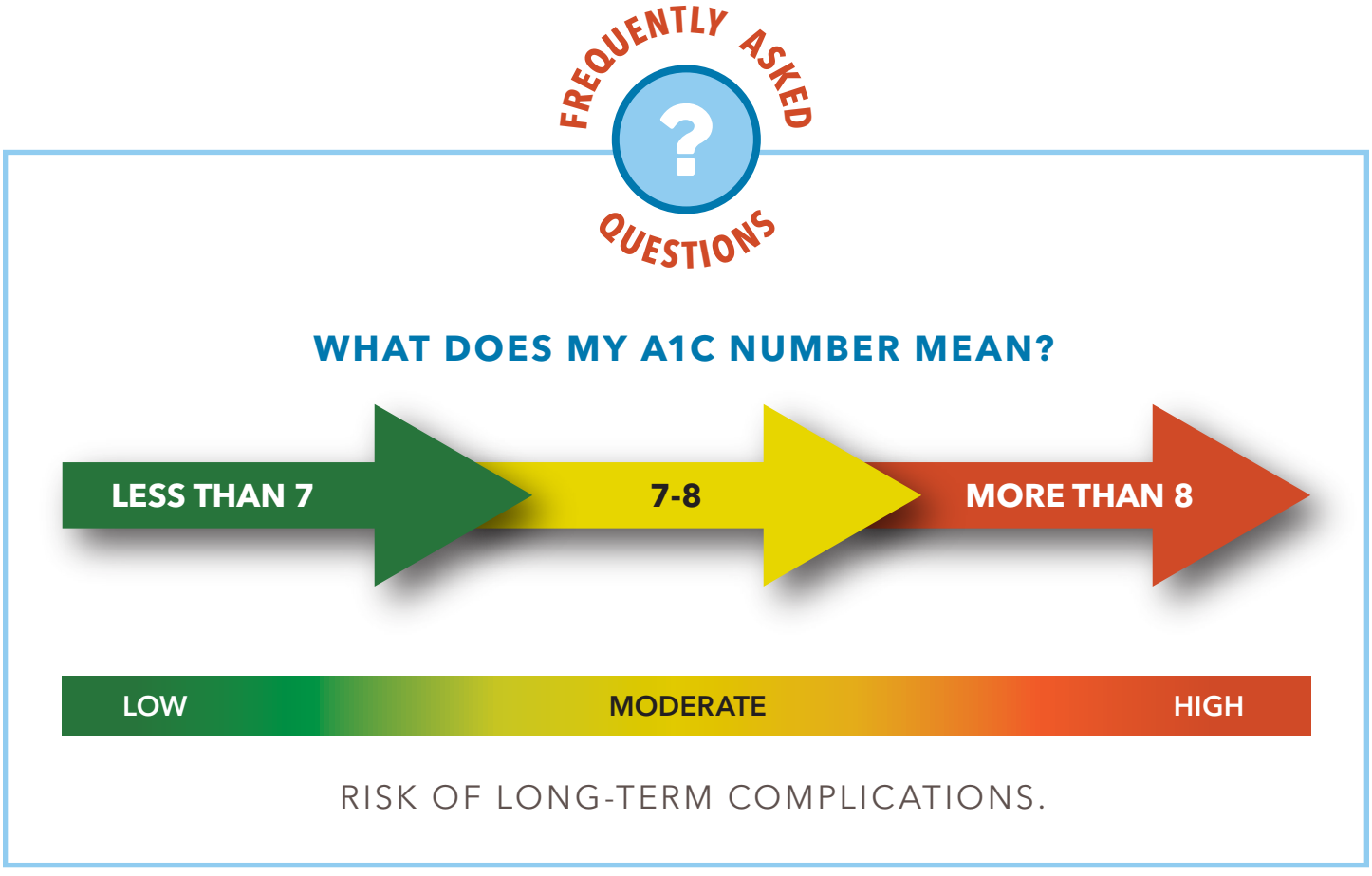
- Lack of physical activity
- Excess weight
- Stress
- Poor quality sleep
- Tobacco use
- High blood pressure (more than 140/90)
- Abnormal cholesterol/ triglycerides (low HDLs, elevated triglycerides)
- Prediabetes

How is diabetes diagnosed?

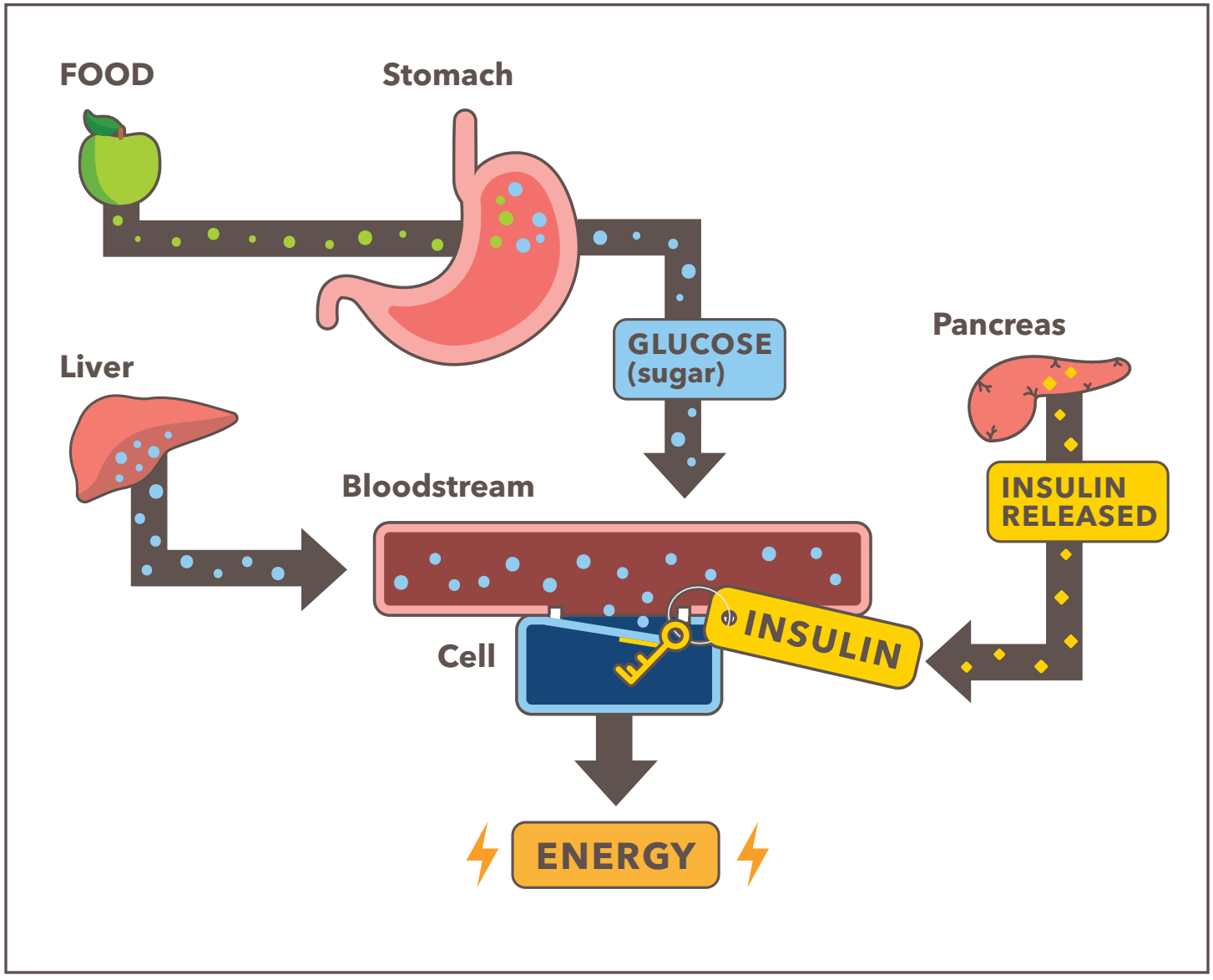
There are blood tests your doctor can do to see if you have diabetes.

Fasting blood sugar test:	Random blood sugar test:	Hemoglobin A1c:
126 mg/dl or higher	200 mg/dl or higher	6.5% or higher
No food for 8–12 hours	No fasting needed	No fasting needed

A higher fasting or random blood sugar result often will prompt your doctor to order a Hemoglobin A1c blood test to confirm the diagnosis of diabetes. It's also called HbA1c or A1c. Kaiser Permanente uses the A1c to keep track of blood sugar management.



What is **diabetes?**



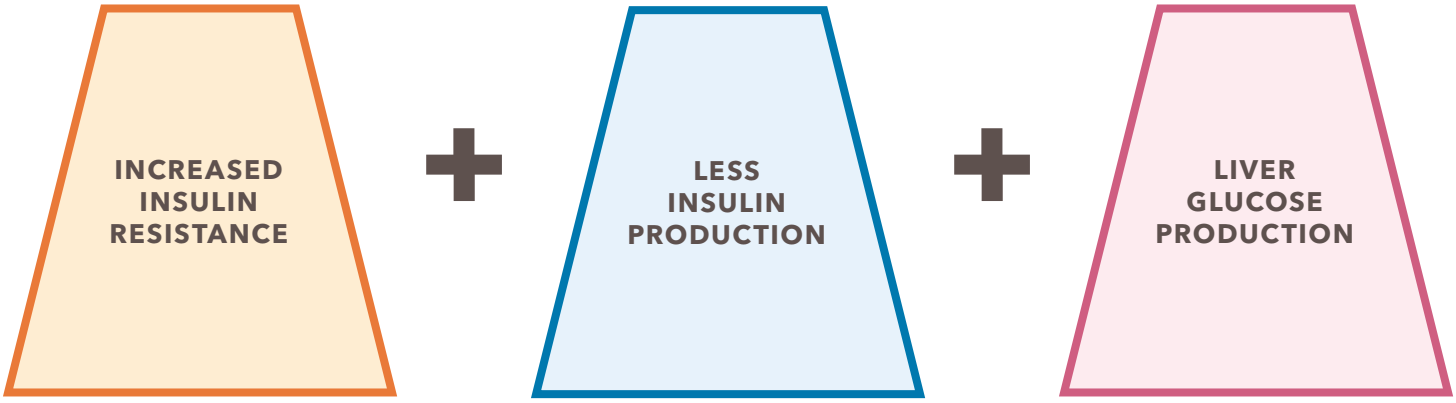
Diabetes happens when too much glucose (sugar) builds up in your blood. Glucose is your main source of energy. It comes from the food you eat. This glucose is carried by your blood stream to your body's cells.

Insulin helps glucose from food get into your cells to be used for energy. Insulin is a hormone made by the pancreas. Diabetes occurs if the pancreas produces too little insulin or if the body cells do not use insulin efficiently.

Over time, cells become less responsive to the insulin that the body makes (insulin resistance). Also, your liver, which stores and can actually make glucose, puts more glucose in your system than is needed.

The goal of diabetes management is to keep blood glucose levels as close to normal as possible.

WHY IS **MY BLOOD SUGAR SO HIGH?**



Type 2 diabetes involves multiple body systems. Several things in your body combine to make it more difficult for your body to use the food you eat efficiently.

- **Increased insulin resistance:** Your cells require more insulin to "open" up and let sugar enter from the blood stream.

- **Less insulin production:** The beta cells in your pancreas produce less insulin. You need more insulin at the cellular level, but because you have less insulin from the pancreas, the sugar builds up in your blood stream. People with type 2 diabetes and prediabetes are losing those insulin-producing cells slowly over a long period of time. This starts happening before you get a diagnosis of diabetes and continues gradually (progressive).

- **Liver glucose production:** Your liver, which stores sugar, puts more sugar into your blood stream, even if you already have high blood sugar.

These 3 things combine to increase blood sugar gradually over time.

Healthy **coping**

ACTIVITY

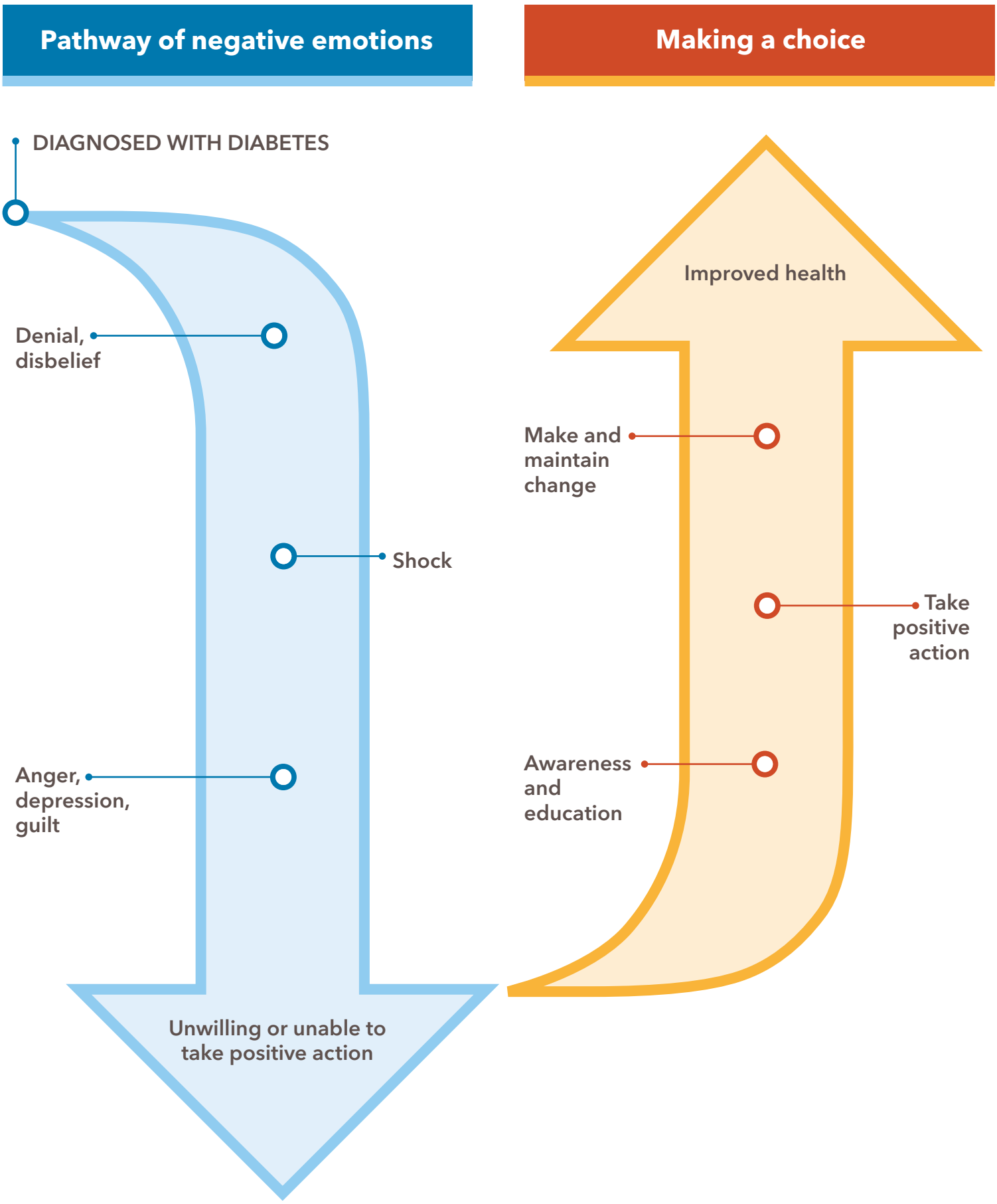
The emotional impact of diabetes

Think about how you felt when you first were told you had diabetes. Think about the way you feel today. Everyone has different reactions to finding out they have diabetes. There is no hard and fast "schedule" for moving through the various emotions.

- **Do any of these look familiar?**

  - Anger
  - Guilt
  - Shock
  - Denial
  - Sadness

- **These are normal emotional responses to being told you have a chronic health condition. Take a moment and check off the emotions you experienced. Or, maybe you reacted differently. In the space below, write about your emotional responses:**


Pathway of negative emotions
Making a choice
DIAGNOSED WITH DIABETES
Denial, disbelief
Shock
Anger, depression, guilt
Unwilling or unable to take positive action
Improved health
Make and maintain change
Take positive action
Awareness and education

ACTIVITY

HOW MUCH DO YOU KNOW ABOUT DIABETES?

Take this myths and facts quiz about diabetes. It's fun and you will probably learn something new!

Circle "M" for myth or "F" for fact

1.	People with diabetes can't eat desserts or chocolate.	◉ M ○ F
2.	A person with diabetes will get colds or the flu more easily.	○ M ○ F
3.	Your body needs carbohydrates for energy.	○ M ○ F
4.	If you feel OK, you don't have to check your blood sugar.	○ M ○ F
5.	Eating too much sugar causes diabetes.	○ M ○ F
6.	Insulin is a cure for diabetes.	○ M ○ F
7.	Eating regular meals and snacks helps you manage your diabetes.	○ M ○ F
8.	Stress and sleep affect your blood sugar levels.	○ M ○ F
9.	If you take insulin, you must have type 1 diabetes.	○ M ○ F
10.	If you have diabetes, you can't ever eat bread, potatoes, or pasta.	○ M ○ F
11.	Eating foods high in fiber helps you manage your diabetes.	◉ M ○ F
12.	Some people are embarrassed that they have diabetes.	○ M ○ F
13.	Losing weight can help lower insulin resistance.	○ M ○ F
14.	Only the foods you eat and exercise affect your blood sugar.	○ M ○ F
15.	Smoking has no effect on diabetes complications.	○ M ○ F
16.	Drinking water can help lower your blood sugar.	○ M ○ F

Myths: 1, 2, 4, 5, 6, 9, 10, 14, 15

Facts: 3, 7, 8, 11, 12, 13, 16

There is a lot to learn. Diabetes knowledge, treatment, and prevention strategies are continually changing as more research is done. It is helpful to remain as knowledgeable as you can – and important to get your knowledge from reputable resources. Sometimes people in your life or the page you found on the internet just don't have correct information.

ACTIVITY

WHAT MOTIVATES YOU TO MAKE CHANGES?

- **What are some benefits of making lifestyle changes?**

- **What are some disadvantages of making lifestyle changes?**

- **What are some benefits of not making any lifestyle changes?**

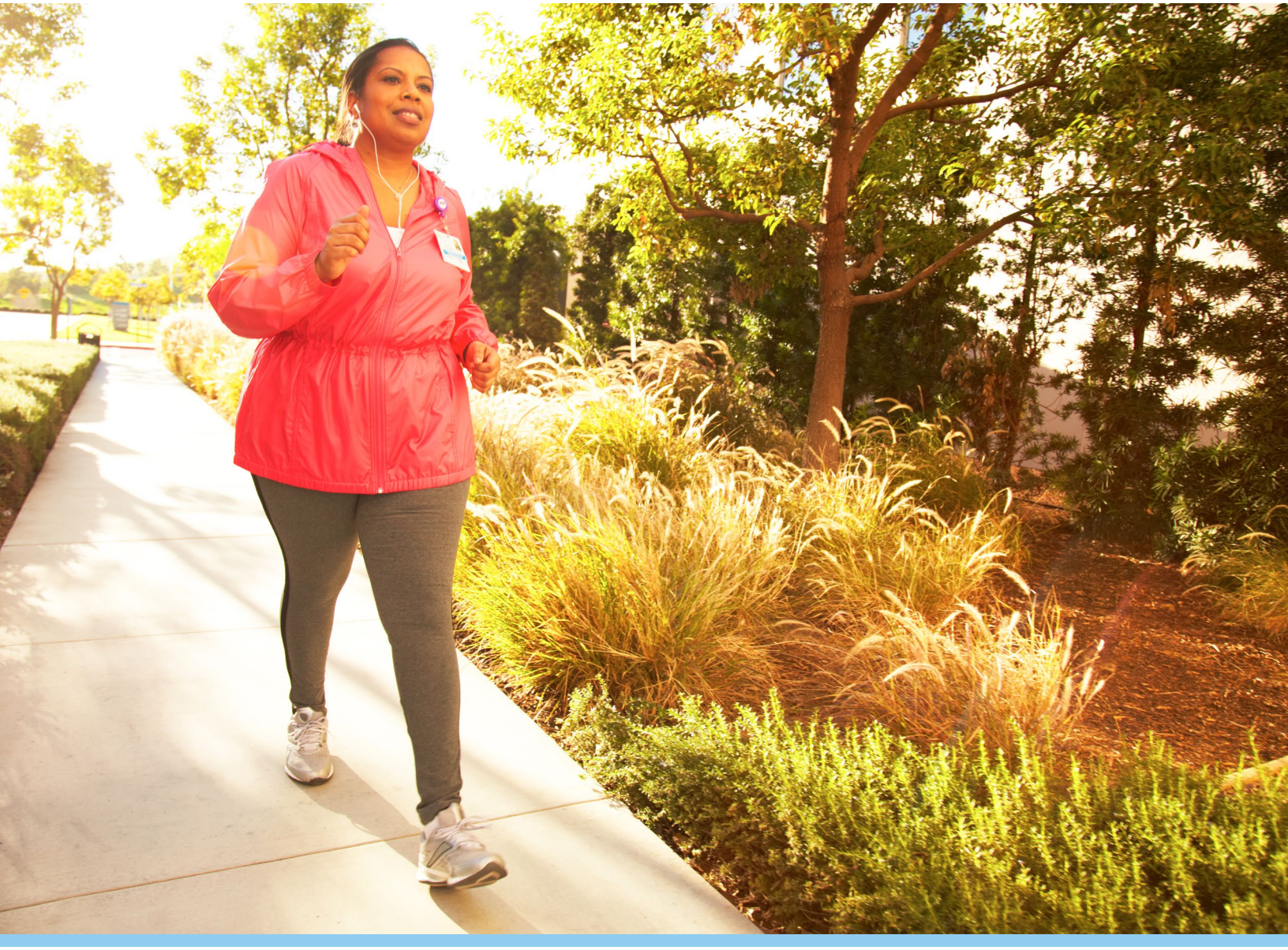
- **What are some disadvantages of not making any lifestyle changes?**

Behavior change is hard for everyone. Tap into what motivates you to adopt some healthy lifestyle changes. Think about your future – where do you want to be next year? In 5 years?

You can talk with a health coach at Kaiser Permanente to help you make and maintain healthy lifestyle changes. Call Health Engagement and Wellness Services at 503-286-6816 or 1-866-301-3866, option 2, to talk with a coach.

What affects your **blood sugar**

Get a better understanding of how food, exercise, medications, and other things can affect your blood sugar. That way, you can keep your blood sugar on target.



Know what affects you

As you check your blood sugar, you can see what makes your numbers go up and down. Soon you'll have a better picture of what affects your blood sugar and how to manage it.

WHAT CAN MAKE YOUR **BLOOD SUGAR GO UP?**

Too much food, like a meal or snack with more carbohydrates than usual

Dehydration

Side effects from other medications

Poor sleep

Not enough insulin or diabetes pills

Using tobacco

Not being active

Being sick

Stress

Menstrual periods

"Why is my blood sugar higher in the morning than when I went to bed?"

It could be many reasons, such as food, medication, the dawn effect, or the Somogyi effect.

DAWN EFFECT

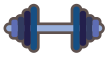
If your blood sugar is normal or high at 2 to 3 a.m., it could be the dawn effect. This is a normal rise in blood sugar as your body prepares to wake up. In the early morning, hormones cause your liver to release sugar into your blood. If your body doesn't produce enough insulin to get sugar into your cells, sugar can stay in your blood and your levels will be high before eating breakfast.

SOMOGYI EFFECT

If your blood sugar is low at 2 to 3 a.m., it could be the Somogyi effect. This happens when your blood sugar is too low in the early morning and hormones are released. The hormones help increase your blood sugar levels but may cause them to be higher than normal in the morning.

Once you and your doctor figure out how your blood sugar levels are behaving at night, you can come up with a plan for changes you can make to better manage them.

WHAT CAN MAKE YOUR **BLOOD SUGAR GO DOWN?**



Being more active than usual

Side effects from other medications

Alcohol, especially on an empty stomach

Missing or delaying a meal or snack

Too much insulin or diabetes pills

ACTIVITY

PROBLEM-SOLVING WITH FOOD AND BLOOD SUGAR

Choosing foods that keep your blood sugar in your target range and eating at regular times is important to staying healthy with diabetes. This is especially true if you are on insulin. But life can throw you curveballs and drive your blood sugar in the wrong direction. Problem-solving can help you think through how to prevent it from happening again.

It's 6 p.m. and you've had a long day. You didn't sleep well last night, traffic has you feeling stressed, and your stomach is growling. You skipped breakfast and ate an early lunch. You're starting to feel dizzy and can't think clearly as you dip to a "2" on the Hunger and Fullness Scale. The scale is a tool that can be used to help you identify how hungry or full you are, or to help you know when to start or stop eating.

HUNGER AND FULLNESS SCALE

1	2	3	4	5	6	7	8	9	10
Starving*	Very Hungry	Hungry	First signs of hunger	Satisfied	Full	Very Full	Uncomfort-ably full	Stuffed	Sick

*At risk for low blood sugar

What do you do for dinner?

How will it affect your blood sugar?

ACTIVITY

YOUR BEST DAY

Figure out what works to keep your blood sugar on target and focus on doing these things more often. Write down what's going well with your diabetes to see what you should keep doing. What happens on your best days? Describe it below in the example day and list the time for each scenario.

Wake up:

Breakfast:

Mid-morning:

Lunch:

Mid-afternoon:

Dinner:

Mid-evening:

Bedtime:

TOPIC 2

Achieving your **target blood sugar**

Why check your **blood sugar**

Regularly checking your blood sugar helps you manage your diabetes. It puts you in charge, giving you bits of information so you know what works for you.

Insulin is a key

Insulin helps your body turn blood sugar (glucose) into energy.

Blood sugar and you

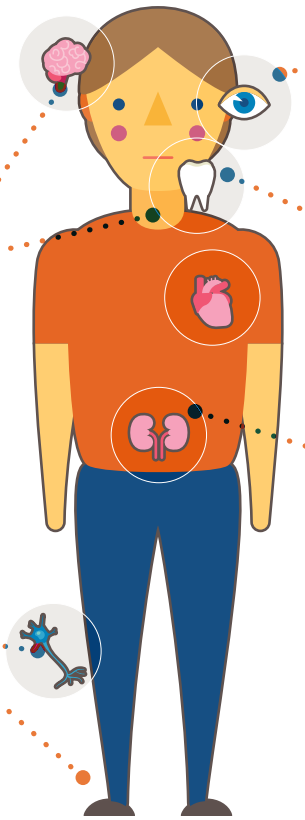
When you have type 2 diabetes, your body doesn't make enough insulin or use the insulin it makes well. Think of insulin as the key that unlocks your cells. It allows sugar in so your body can do things like walk and talk. If sugar can't get in, it stays in your blood, which causes problems. If your blood sugar seems to always go from too high to too low, it can look and feel like a blood sugar roller coaster, out of control. But there are ways you can stay on track.

What is insulin?

Insulin is a hormone. The beta cells in your pancreas make it. Insulin is the key that opens the cells to receive glucose (sugar) from the blood. Insulin is necessary for life.

WHAT'S IN IT FOR YOU?

Lowering your blood sugar can help reduce your risk of:



- Heart attack and stroke
- Eye problems that can lead to trouble seeing or going blind
- Teeth and gum problems
- Kidney problems that can cause your kidneys to stop working
- Pain, tingling, or numbness in your hands and feet (nerve damage)

And can give you benefits like:

Having more energy

Feeling less tired and thirsty

Going to the bathroom less often

Healing better and having fewer infections

Checking your blood sugar levels regularly helps you and your doctor manage your blood sugar. This helps you avoid diabetes complications.

Checking your **blood sugar**

Knowing when you should check your blood sugar, along with your target numbers for blood sugar, blood pressure, cholesterol, and weight, can help you take action where needed and find success.

Timing is everything

When you check your blood sugar, you'll use a small device called a glucose meter. It reads the amount of glucose (sugar) in a small sample of blood that you place on a disposable test strip. If you use insulin, this can help you learn when to adjust it for the best control.

6 easy steps to check your blood sugar

Review the instructions for your meter.

Gather supplies you need before you check (meter, test strips, lancet, lancing device, logbook).

Wash your hands with warm water and soap.

Prick the side (not the tip!) of your finger with a lancing device.

Apply blood to the test strip according to your meter directions.

Record the blood sugar numbers in your *Diabetes Diary* or glucose meter app.

Prevent sore fingers (ouch!)

- Use a new needle (lancet) every time. Don't share your lancet.
- Prick the side of your finger, rather than the middle part. Use a different finger each time to reduce redness and soreness.
- To get more blood flowing, shake your hand up and down or run warm water over your hand before you prick your finger.

Recording your blood sugar results is important to help you understand what's working and whether you need to make any changes. Bring your blood glucose monitoring diary, meter, and/or glucose meter app with you to your doctor appointments so you can talk about your patterns when your blood sugar goes up or down.

When should I check my blood sugar?

You and your doctor can discuss the best times for you to check. Some good times include:

- Fasting (first thing in the morning)
- Before and 2 hours after a meal
- Bedtime
- Before and 1 hour after physical activity
- When you feel "strange"
- When you are ill

What should my blood sugar be?

Usual target ranges:	
Before meals or fasting	80–130 mg/dl
Two hours after a meal	less than 180 mg/dl
Bedtime*	100–150 mg/dl

**If you are not on blood sugar lowering medication such as insulin or Glipizide, you don't normally have bedtime blood sugar targets.*

Your blood sugar targets may be different, so be to sure to discuss this with your doctor.

ACTIVITY

THIS IS NOT A TEST

"Testing" your blood sugar can feel like a pass or fail grade. Try "checking" instead: Gather information and make adjustments if needed. Ask, "What can I learn from this? Could I have changed my pasta serving size? Do I need to lower my insulin dose before exercise? What can I do to prevent this from happening again?"

I check my blood sugar:

- ○ When I wake up
- ○ Before breakfast
- ○ After breakfast
- ○ Before lunch
- ○ After lunch
- ○ Before dinner
- ○ After dinner
- ○ At bedtime

When is a time that you have noticed high or low blood sugar levels?

What do you think happened?

What changes can you make next time?

Checking blood sugar at your doctor's office

% A1C	Level of control	Average blood sugar level (mg/dl)
12.0	Immediate action suggested	283–298
11.5		
11.0		255–280
10.5		
10.0	Action suggested	226–252
9.5		
9.0		197–223
8.5		
8.0	Monitor closely	169–194
7.5		
7.0	Goal	140–166
6.5		
6.0	Prediabetes	126–137

The A1C test is a lab test ordered by your doctor. It shows what your average blood sugar numbers have been over the past 2 to 3 months and whether you need to make any changes.

The numbers on this table apply to most people with diabetes. Your guidelines may be different. Talk to your doctor about your goal.

ACTIVITY

MAKING IT ROUTINE

Check off at least one way you can make checking your blood sugar a part of your routine this week.

- **Decide on the best time to check.**

  Talk to your doctor about when and how often you should monitor your blood sugar.

- **Set an alarm.**

  If everyday life has too many distractions, create reminders for yourself.

- **Adjust to the situation.**

  Your blood sugar can change when you're stressed or sick, you change your diet or exercise routine, or you switch your medications.

- **Check your meter.**

  Keep your meter clean and check the battery often. Take it with you to your doctor's appointments.

- **Be consistent.**

  A good way to make blood sugar checking part of your daily routine is to eat at the same time every day. That way your meals can be your constant reminder for when to check.

- **Make recordkeeping a priority.**

  If you track your blood sugar results, you have valuable information you and your doctor can use.

- **Don’t sweat it if you forget it.**

  If you forget once in a while, it's OK, but don't make forgetfulness a habit.

- **Keep supplies handy.**

  Store your supplies in the same place and regularly check to see that you're well-stocked. These habits can help make checking easier.

- **Minimize soreness.**

  See "Prevent sore fingers (Ouch!)" on page 19.

- **Get support from others.**

  Share successes with family and friends. Plan a walk with family or friends and check your blood sugar before you go.

Tracking your blood sugar levels helps you and your doctor know what keeps your blood sugar on target or whether adjustments are needed.

Household **medical waste**

Most states or cities have laws requiring that all sharps (syringes and lancets) must be placed in easily identified, protected containers for disposal.

You can purchase sharps containers that meet your community's requirements at a pharmacy, drug, or medical-supply store. Some waste-management or waste-hauling companies provide approved containers. Call your county health department or your residential waste-hauling company for more information.

HOUSEHOLD MEDICAL WASTE – **OREGON**

Safe disposal of household medical sharps

Throwing sharps in the trash is illegal.

You cannot throw syringes and other medical sharps in the garbage. The law requires that medical sharps be disposed of in an approved sharps container. The containers are available at many pharmacies, medical supply stores, and Metro's hazardous waste facilities.

Metro's container exchange program

Metro's container exchange program is only for residents and households in Clackamas, Multnomah, and Washington counties.

A $5 fee is charged each time for up to 35 gallons of hazardous waste disposal. The addresses are listed to the right.

Metro has household medical waste "collection events" from March through November. The schedule is at **oregonmetro.gov/roundups.**

Other counties do not have this container exchange program. Contact your garbage hauler for options.

Other disposal

Some pharmacies, garbage haulers, and recycling collection companies provide sharps disposal for a fee. Contact your hauler, check Metro's online database, or ask Metro about safe disposal options near you.

For information on disposal options, contact:

- Safe Needle Disposal
  1-800-643-1643
  safeneedledisposal.org
- Metro Central Transfer Station
  6161 NW 61st Ave.
  Portland, OR 97210
  503-234-3000
  oregonmetro.gov/recycling
- Metro South Transfer Station
  2001 Washington St.
  Oregon City, OR 97045
  503-234-3000
  oregonmetro.gov/recycling
- Marion County Department of Solid Waste Management
  503-588-5169
  co.marion.or.us/PW/ES/disposal
  or contact your garbage hauler company
- Mid-Valley Garbage & Recycling Association
  503-390-4006
  mrtrashrecycles.com
- Bi-Mart Pharmacy
  Keizer location, 503-371-6717
  Lancaster Drive NE, 503-588-8173
- Lane County Waste Management
  3100 E 17th Ave.
  Eugene, OR 97403
  541-682-4120
  lanecounty.org/HazWaste

HOUSEHOLD MEDICAL WASTE – **WASHINGTON**

Washington state law requires disposal of needles, lancets, and other sharps waste in an easily identified, clear plastic, protected container. It must be kept separate from the regular solid-waste stream.

Proper disposal of the containers varies according to local jurisdiction. Check with residential-waste haulers or city, county, or other municipal agencies for more information.

Waste haulers offering sharps disposal are required by law to notify the public in writing that this service is available, and to describe the cost and other details.

Some Vancouver waste is hauled to Oregon. It is subject to Oregon state law, which requires that all sharps (insulin syringes, lancets, etc.) must be placed in a leak-proof, rigid, puncture-resistant, red, sealed container.

Sharps containers meeting the requirements of Washington (and Oregon) state law can be purchased at Kaiser Permanente pharmacies, and most drug and medical supply stores.

Certain waste-management or waste-hauling companies provide approved containers. Call your county health department or your residential waste-hauling company for more information.

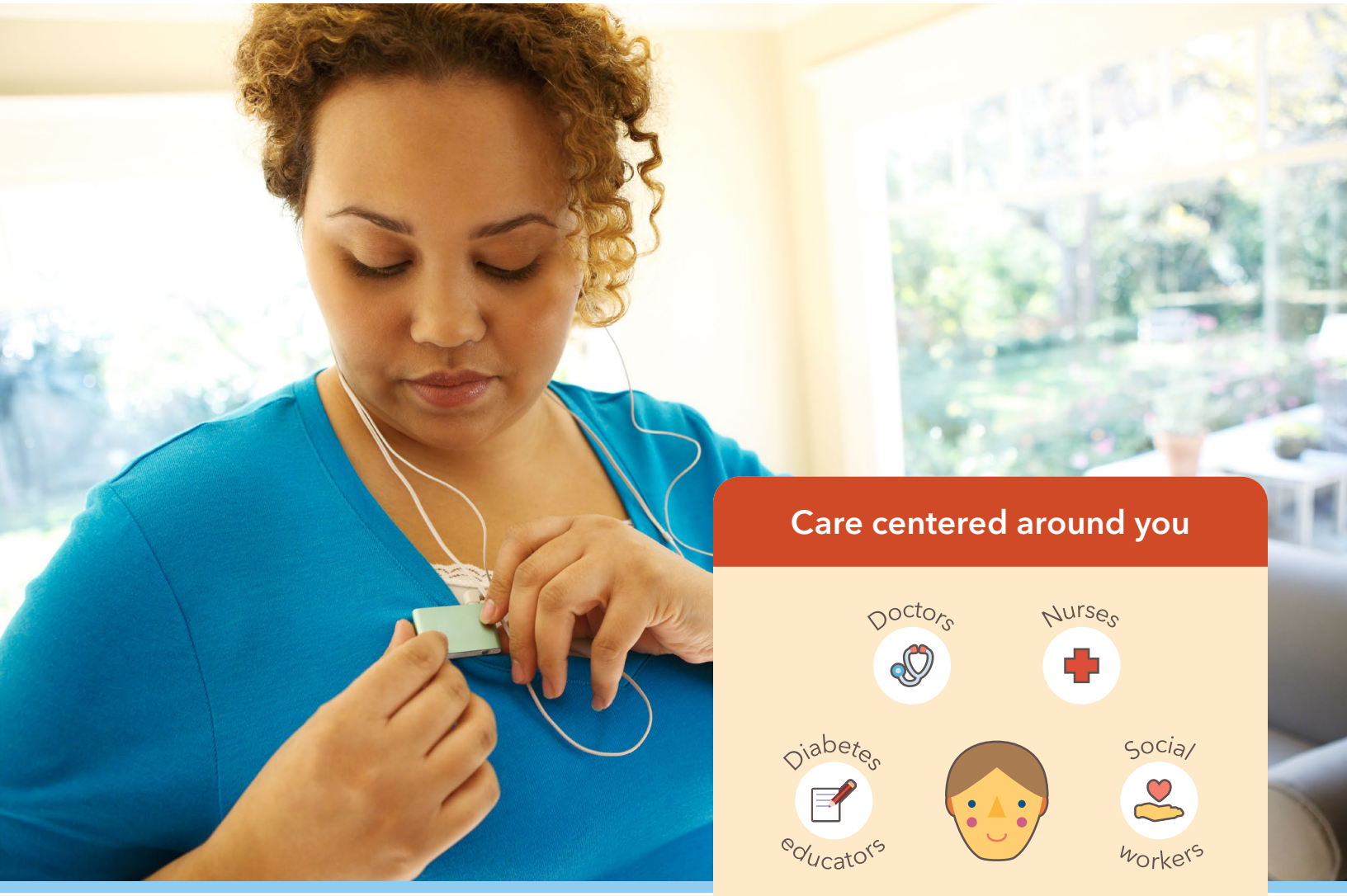
Kaiser Permanente medical facilities cannot accept used sharps or sharps containers.

For information on disposal options, contact:

- Clark County
  564-397-2000
  clark.wa.gov/public-health/recycling-Z
- Central Transfer and Recycling Center
  11034 NE 117th Ave.
  Vancouver, WA 98660
  360-256-8482
  columbiaresourcecompany.com
- West Vancouver Materials Recovery Center
  6601 NW Old Lower River Road
  Vancouver, WA 98660
  360-737-1727
- Washougal Station Transfer
  4020 S Grant St.
  Washougal, WA 98660
  360-835-2500
- Waste Control Transfer Station
  1150 3rd Ave.
  Longview, WA 98632
  360-425-4302
  wastecontrolrecycling.com

Creating a **plan**

Prioritize what is most important to you by making one small step toward a goal this week.



Setting yourself up for success

A journey of a thousand miles begins with one small step. And we mean small, like these:

- Eat one extra vegetable with dinner.
- Go for a 5-minute walk right now.
- Put clothes on that you would wear to exercise.
- Spend one minute deep breathing, eyes closed.

Care centered around you

When it comes to how diabetes affects your health and your life, you're the one in charge. You also have a team of people to help you along your journey!

ACTIVITY

MAKE YOUR ENVIRONMENT WORK FOR YOU

Pick one way you can prioritize controlling your blood sugar this week in the table below. These are just examples; make it personal by adding your own!

Ways you can control blood sugar	Tips for how to get there
Always eat breakfast.	 Make egg breakfast muffins for an easy fix. See page 60 for the recipe.
Check your blood sugar regularly.	 Keep a glucose meter next to your bed so you can check it when you wake up and/or before you go to sleep.
Eat more foods with fiber.	 Use a large bowl for salad so you eat more veggies.
Include healthy whole grains/starches in your meals.	 Choose whole-wheat bread or pasta, or brown rice.
Exercise to boost energy and improve sleep.	 Use small weights or walk in place while watching TV.
Drink water and stay hydrated.	 Carry around a water bottle.
Control your portions.	 Use a small dinner plate (9 inches across).
Manage your stress.	 Talk to a friend or family member about what is causing you stress.
Limit alcohol.	 Instead of happy hour, suggest going for coffee or tea.

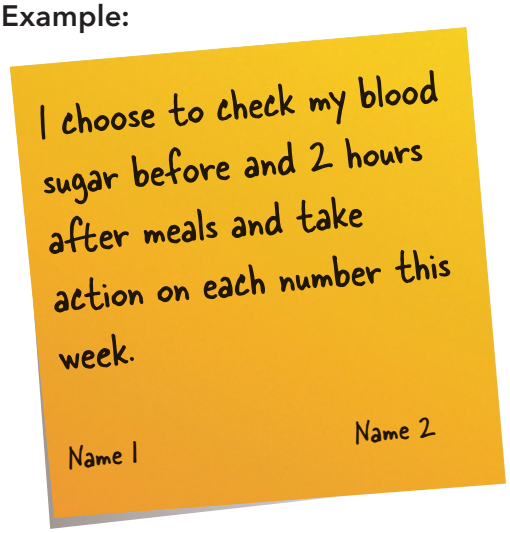
Your own idea:

Make it personal

Use a sticky note to write a small commitment toward the goal you chose in the activity. This will be your "personal action plan." Use proactive words like "I choose to." Make it specific, realistic, and something you can do this week. Put it where you will see it every day.

Under your personal action plan, write the names of 2 people who can help you reach your goal – one from your health care team (doctor, educator, dietitian) and one from your social circle (partner, friend, child).

Example:



On a scale of 0 to 10, how important is it for you to change right now?

0 1 2 3 4 5 6 7 8 9 10

Not at all important — Extremely important

On a scale of 0 to 10, how confident are you that you could make this change?

0 1 2 3 4 5 6 7 8 9 10

Not at all confident — Extremely confident

You don't have to manage diabetes alone. Using a forum like **diabetes.org/community** is a great way to connect with others who can understand what you're going through. Remember to choose reliable online sources about diabetes. When in doubt, call your doctor.

TIPS I LEARNED TODAY/FROM OTHERS

TOPIC 3

Eating to feel your best

What's in your **food?**

Explore the basics of what food is made of and how it affects your blood sugar.

Healthy eating

We make food choices every day.

Choices about what, when, and how much you eat and drink will affect your blood sugar level.

The good news is that eating for diabetes is the same as healthy eating for most everyone.

And good nutrition promotes good health!

Healthy eating for diabetes

These general guidelines will help you get started in planning your eating pattern for your day:

- At each meal, have foods from a variety of food groups.
- Try to eat something every 4 to 5 hours.
- If you go longer between meals, consider having a snack.
- Eat about the same amount of carbohydrates at each meal.
- Include breakfast as part of your daily meal plan.
- Match your medications to your food intake, if needed.

Why does it matter?

Eating about the same amount of carbohydrates at each meal (3 times a day) keeps your blood sugar stable throughout the day.

Keeping your blood sugar at a more stable level is better for your brain, your heart and blood vessels, your digestive tract, your whole body.

Nutrition basics

Managing diabetes begins with making healthy food choices. Planning meals and snacks starts with:

- Knowing which foods raise your blood sugar and which do not.

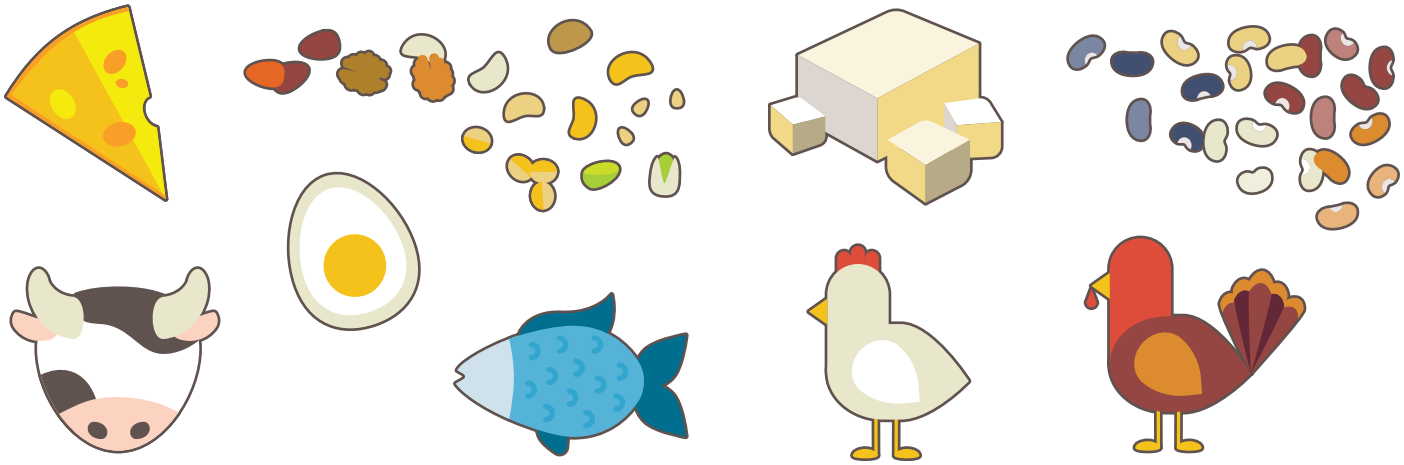
- Understanding the different food groups.

- Balancing the different types of foods for a healthy plate.

Foods are divided into food groups based upon what they are made of and what they do for our bodies. We all need nutrients from each of these food groups.

PROTEIN

Protein forms the building blocks of muscle and can help your body repair itself.



Choose more protein foods that have nutrients and are lower in saturated fat and calories, such as:

- Lean (skinless) chicken or turkey
- Fish
- Soy (unsweetened soy milk, tofu, tempeh)
- Eggs
- Beans **(also have carbs)**
- Low-fat or nonfat dairy (cottage cheese, part-skim cheese, Greek yogurt)
- Nuts and nut butter **(also high in healthy fat)**

CHOOSE MORE OFTEN

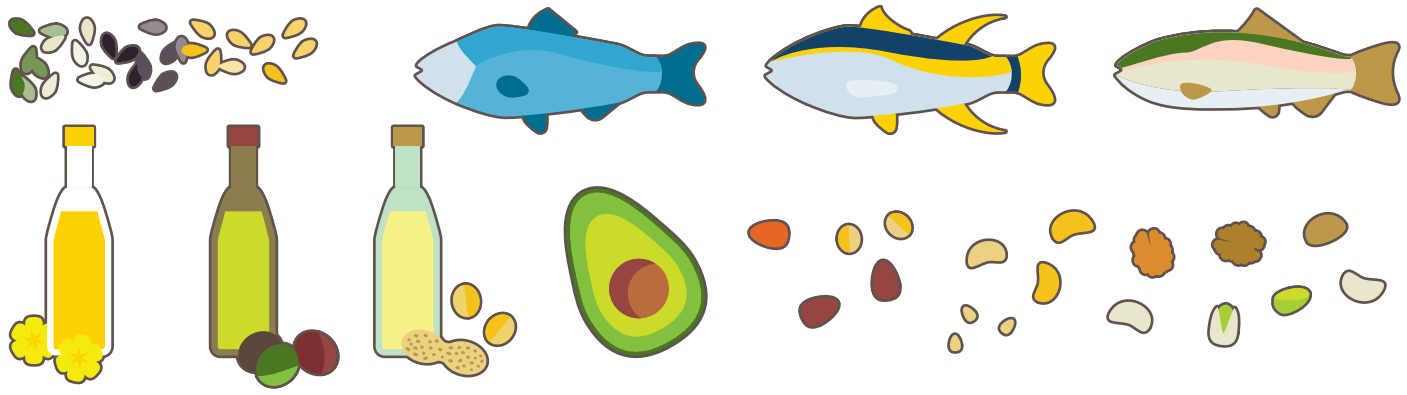
Choose fewer foods that are high in saturated fat and calories, such as:

- Whole-fat dairy
- Fatty cuts of meat
- Red meats
- Poultry skin
- Processed meats like salami, bacon, hot dogs, and sausage

CHOOSE LESS OFTEN

FAT

Fat helps you feel full and provides energy. It is very concentrated, so you only need small amounts to avoid gaining weight. There are 4 types of fat: monounsaturated, polyunsaturated, saturated, and trans fat. But not all fat is the same.



Mono- and **polyunsaturated** fats tend to be liquid at room temperature (think olive oil). They can lower levels of cholesterol in your blood.

- Avocados
- Oils (canola, olive, peanut, cottonseed, flaxseed, grapeseed, safflower, sesame, avocado)
- Most nuts and natural nut butters
- Fatty fish (salmon, albacore tuna, mackerel, trout, herring, sardines)
- Seeds (sunflower, chia, hemp, ground flaxseed, sesame, pumpkin)

CHOOSE ↑ **MORE OFTEN**

(EAT IN MODERATION)

Saturated and **trans** fats tend to be solid at room temperature (think butter). They increase levels of cholesterol in your blood, which can increase your risk for heart attack or stroke.

Saturated fats:

- Whole-fat dairy
- Fatty, processed, and red meats
- Lard
- Poultry skin
- Butter, cream (whipping, heavy, sour) and cream cheese
- Coconut or palm oil

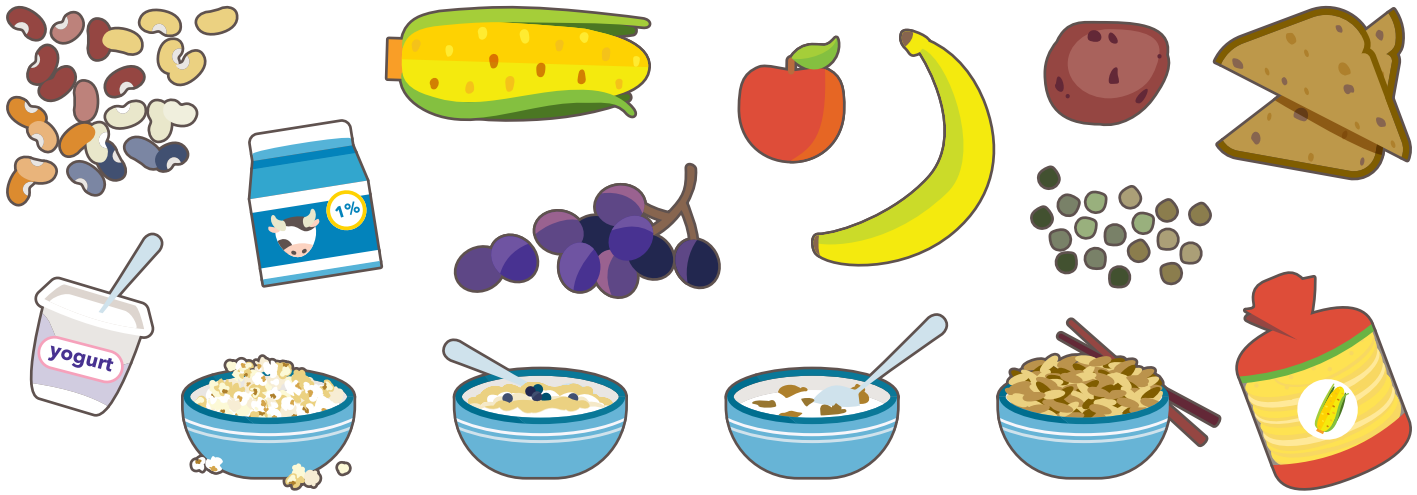
CHOOSE ↓ **LESS OFTEN**

AVOID TRANS FATS

Food companies use hydrogenated oils to increase shelf life and save costs, but they can be harmful for your heart health. Avoid foods with the words "hydrogenated" or "partially hydrogenated" oils in the ingredient list.

CARBOHYDRATES

Carbs fuel your body like gasoline fuels a car. They aren't bad – you need them for energy! But they also affect your blood sugar the most because all carbs break down into sugar. It's important to spread them out throughout the day and include some with each meal, especially if you are on medication.



Healthy carbs raise your blood sugar slowly and last longer. They have more fiber (which helps you feel full and is good for your heart and waistline) and are found in foods like:

- Whole fruit
- Starchy vegetables
- Beans
- Low-fat or nonfat milk or yogurt
- Corn tortillas
- Lentils
- Brown rice
- Oatmeal
- Popcorn
- Whole-grain bread and cereal
- Whole-wheat pasta

CHOOSE MORE OFTEN

Less healthy carbs raise your blood sugar levels quickly. They work well to correct low blood sugar but they don't satisfy hunger as well as healthy carbs. Some examples are:

- White bread, pasta, and rice
- Sugary drinks like fruit juice and soda
- Pastries
- Candy
- Cookies
- Sweeteners

CHOOSE LESS OFTEN

CARB COUNTING

Carb counting is one tool that can help keep your blood sugar on target and is helpful if you take insulin. Go to page 40 or visit diabetes.org for more information.

ACTIVITY

WHAT'S A WHOLE GRAIN?

Look for "100% Whole Grain" or "100% Whole Wheat" on a food package. Some foods are always whole grains, like rolled oats, brown rice, wild rice, and popcorn.

Can you tell which of these is a whole-grain food based on the ingredients?
Hint: Look for the word "whole" before the first ingredient.

- **A Bread** — **Ingredients:** Wheat Flour, Malted Barley Flour, Niacin, Iron, Riboflavin, Folic Acid
- **B Tortilla** — **Ingredients:** Whole-Wheat Flour, Soybean Oil, Salt, Corn, Starch, Wheat Starch
- **C Dry cereal** — **Ingredients:** Whole-Corn Meal, Whole-Grain Oats, Corn Starch, Canola Oil, Cinnamon, Brown Sugar
- **D Cracker** — **Ingredients:** Whole-Grain Brown Rice Flour, Sesame Seeds, Potato Starch, Safflower Oil, Quinoa Seeds, Flaxseeds, Salt
- **E Roll** — **Ingredients:** Unbleached Enriched Wheat Flour, Sugar, Salt, Soybean Oil, Oat Bran, Yellow Corn Meal, Salt, Barley, Rye

Answers: B, C, and D are whole grains because they list "whole" grains.

"Is alcohol OK?"

It's a good idea to talk with your doctor first. Generally, you can still drink alcohol with diabetes, following the same guidelines as those for people without diabetes. For women, this means no more than 1 drink a day. For men, this means no more than 2 drinks a day.

1 drink =

Regular beer
12 ounces

Malt liquor
8 to 9 ounces

Wine
5 ounces

Hard liquor
1.5 ounces

Before you take that first sip, ask yourself:

- Is my diabetes under control (A1C less than 7)?
- Have I talked with my doctor to know whether I have other health concerns that may become worse if I drink alcohol?
- Am I taking insulin or diabetes pills like metformin, glipizide, or glyburide that could build up lactic acid or cause low blood sugar if I drink?

Remember, your liver helps keep your blood sugar at a normal level and it can't do that very well if it's also trying to remove alcohol from your blood. If one of your goals is to lose weight, keep in mind that alcoholic beverages are high in calories. Here are some guidelines to follow if you do decide to drink:

- **Don't drink on an empty stomach.**
- Sip your drink slowly.
- Choose calorie-free mixers instead of drinks that have fruit juice or are blended.
- Wear identification saying you have diabetes.
- Check your blood sugar before and after drinking.
- Never drink before you drive.

"Are sugar substitutes bad for me?"

Sugar substitutes sweeten your food or drink with little to no carbs or calories but should be used in moderation. Examples are:

- Splenda (sucralose)
- Equal and NutraSweet (aspartame)
- Sweet'N Low (saccharin)
- Sweet One (acesulfame K)
- Truvia (stevia)
- Newtame (neotame)
- Advantame
- Nectresse, Monk Fruit in the Raw, PureLo (luo han guo fruit extract)

"Are sugar-free or no-sugar-added foods good to eat?"

Sugar-free or no-sugar-added foods have sugar alcohols (reduced-calorie sweeteners, nonalcoholic), which have fewer calories than sugar. However, they can also be high in other carbs, so it's a good idea to check your blood sugar to know if they affect you. They can cause diarrhea, so eat them in moderation. Examples are:

- Erythritol
- Isomalt
- Lactitol
- Maltitol
- Mannitol
- Sorbitol
- Glycerol (also known as glycerin or glycerine)
- Xylitol
- Hydrogenated starch hydrolysates

Balance your meals with a variety of healthy carbohydrates, proteins, and fats.
Balance eating with being active.

The healthy plate **method**

Use the healthy plate method for a flexible approach to eating well-balanced, enjoyable meals without any measuring or counting.

Create your plate

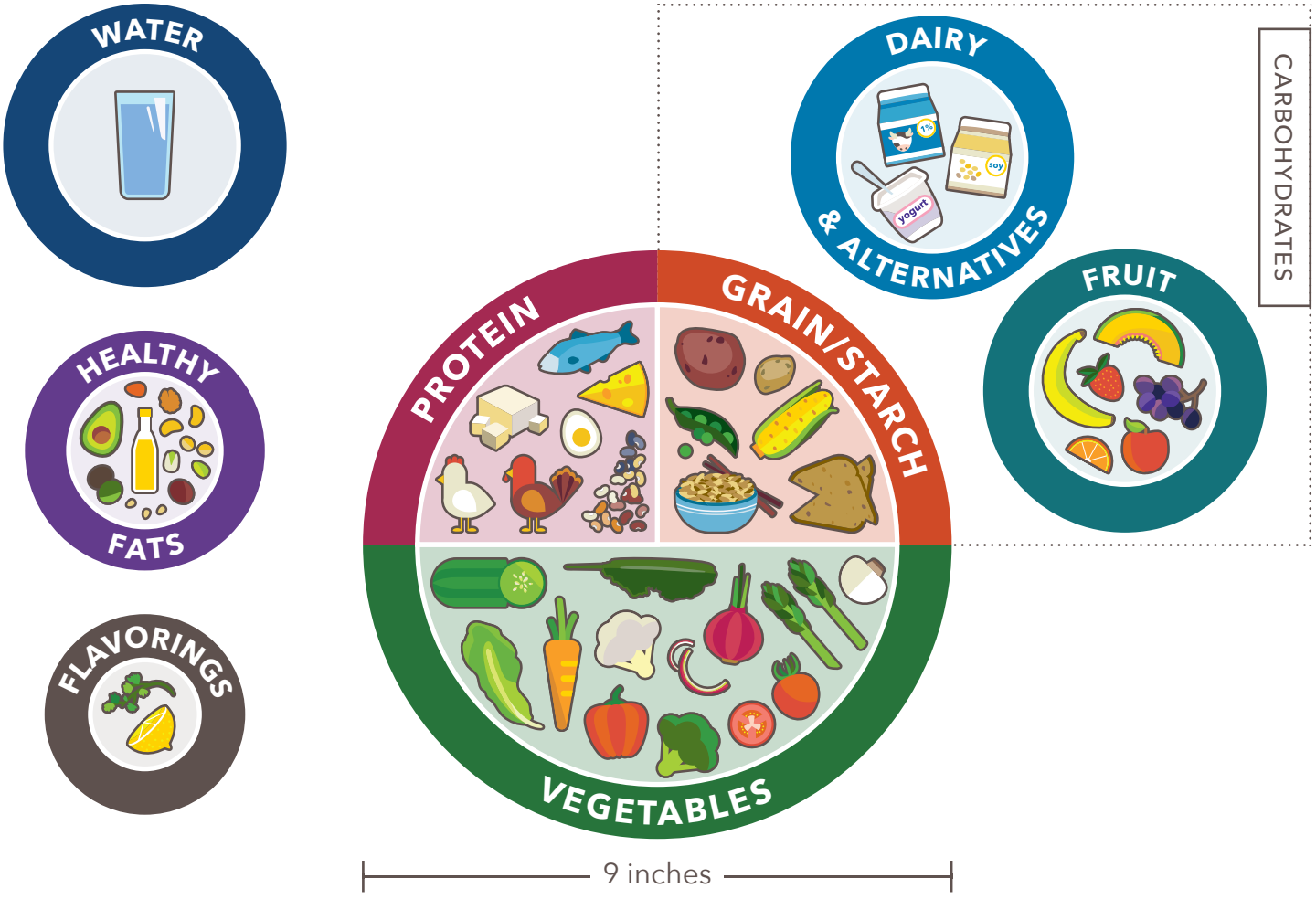
Confused about portion size or how much food you should eat to feel your best? One way to know is with the "healthy plate" method, an easy way to plan meals that doesn't require any measuring or counting. And the best part? You can use it almost anywhere. Use it when you eat out, at holidays or special events, and most important, when you cook at home for yourself!

FREQUENTLY ASKED QUESTIONS

"Where do I start with the healthy plate?"

Filling ½ of a 9-inch plate with vegetables, ¼ with whole grains/starches, ¼ with protein, and including dairy and/or fruit on the side is a great way to create a balanced meal. Include a small amount of healthy fat and season your food with herbs and lemon instead of salt. Aim to drink 8 glasses of water each day.

The healthy plate



HEALTHY FATS

Oil
Avocados
Nuts
Olives

FLAVORINGS

Instead of salt:
Herbs and spices
Fresh lemon

PROTEIN

Turkey/chicken
Fish
Cheese
Eggs
Beans
Tofu

VEGETABLES

Nonstarchy vegetables

FRUIT

Whole fruits

GRAIN/ STARCH

Whole grains
Starchy vegetables

DAIRY & ALTERNATIVES

Low-fat or nonfat milk
Soy, cashew, almond, rice milk
Yogurt

Diabetes meal planning tips

Balance each meal with food that contains carbohydrates, protein, and fats.

Carbs 

Most people with diabetes find 2–4 choices or servings per meal helps manage their blood sugar.

Protein 

Spread your protein throughout the day. For most people, 2–3 servings a day are enough. (One serving is 2 to 4 ounces.)

Fats 

Include 1–3 servings of healthy sources of fats in each meal.

What should you aim for?

- Meals are balanced when they include foods from each of these 3 main groups.
- Have carbohydrates in limited amounts (moderation). Use one of the portion methods described in this section.
- Remember to add in non-starchy vegetables. These are in the carbohydrate group but do not raise blood sugar much. They help to fill your belly and provide fiber and nutrients.
- Control portion sizes in all food choices in your meals and snacks.

Carbohydrate containing foods will raise your blood sugar after meals, peaking 1–2 hours after you start eating.

Carbohydrates: A deeper dive

Some people with diabetes like to check their carbohydrate intake more closely.

It is recommended that people with diabetes get moderate amounts of carbohydrates at each meal and snack. "Moderate" is defined as having 2–4 choices from carbohydrate-containing foods at each meal, and 1–2 choices at snacks, if needed.

You can count carbohydrates based on grams or based on number of choices.

FREQUENTLY ASKED QUESTIONS

How many carbohydrates should I eat?

1 carbohydrate choice = 15 grams of carbohydrate

	Active lifestyle	Less active lifestyle
Meals:	3–4 choices or 45–60 grams	2–3 choices or 30–45 grams
Snacks:	1–2 choices or 15–30 grams	1 choice or 15 grams

COUNTING **CARBOHYDRATES**

Grams

Add up the number of grams of carbohydrates you eat at a meal **(goal: 30–60 grams)**

Example:	
1 cup Cheerios	20 grams
1/2 cup of 2% milk	6 grams
Small banana (about 5")	16 grams
Hard-boiled egg	0 grams
Coffee	0 grams
Total:	**42 grams**

Choices

Add up the number of carbohydrate choices you have per meal **(goal: 2–4 choices)**

Example:	
1 cup Cheerios	1.5 choices
1/2 cup of 2% milk	0.5 choice
Small banana (about 5")	1 choice
Hard-boiled egg	0 choice
Coffee	0 choice
Total:	**3 choices (= 45 grams)**

1 carbohydrate choice =
15 grams of carbohydrate

USING THE DAILY FOOD GUIDE

WHAT COUNTS AS ONE SERVING?

Foods in **orange** have 15 grams of carbohydrate, which equals one carbohydrate choice.

Grains and starches

Each of these equals one bread serving (80 calories):

- 1/3 cup cooked pasta or barley
- 1/3 cup cooked rice
- 1/2 cup cooked dried beans and peas
- 1/3 cup baked beans
- 1 small potato w/skin (or 1/2 cup mashed)
- 1/2 cup yam or sweet potato
- 1/2 cup starchy vegetables (corn or peas)
- 1 cup winter squash
- 1 slice bread or 1 roll (1 ounce)
- 1 six-inch tortilla
- 3 graham cracker squares
- 1 four-inch pancake
- 1/2 English muffin, or hamburger/hot dog bun
- 1/4 of 4-ounce bagel
- 1/2 cup cooked cereal
- 1/2 cup Shredded Wheat or flaked bran cereals
- 3/4 cup other dry cereal, unsweetened
- 4–6 crackers (saltine-type, rye crisp, crispbreads)
- 3 cups popcorn, unbuttered, not cooked in oil

To increase fiber, select whole-grain, unrefined breads and cereals.

Fruit

Each of these equals one fruit serving (60 calories):

- 1 fresh small to medium fruit
- 1/2 banana
- 1/2 grapefruit
- 1 cup melon
- 1 cup most berries
- 1/2 cup fruit canned in juice or without sugar
- 2 Tbsp. raisins and most dried fruit
- 1/2 cup apple, grapefruit, or orange juice
- 1/3 cup cranberry juice cocktail, grape, or prune juice

Best choices are whole fruits (high fiber), rather than fruit juices. Including a citrus source such as oranges, grapefruit, cantaloupe, tangerines, strawberries, or kiwi fruit daily will increase vitamin C intake.

Milk and milk substitutes

Each of these equals one milk serving:

- Nonfat and very low-fat milk (90 calories):
  - 1 cup milk
  - 1 cup buttermilk
  - 6 ounces plain yogurt
  - ½ cup chocolate milk
  - 1 ½ cups sweetened soy milk
  - 1 cup most sweetened plant-based milk beverages

Vegetables

Each of these equals one vegetable serving (25 calories):

- 1/2 cup cooked vegetables
- 1 cup raw leafy vegetables
- 3/4 cup tomato/vegetable juice

Best choices include fresh or frozen (without sauce). Eating the "skins" increases fiber intake. To increase vitamin A content, include dark green leafy or deep yellow vegetables.

Fats

Each of these equals one fat serving (45 calories):

- 1 tsp. margarine, oil, or mayonnaise
- 1 Tbsp. diet margarine or reduced-fat mayonnaise
- 1 Tbsp. nuts, seeds
- 2 Tbsp. reduced-calorie salad dressing
- 2 Tbsp. avocado
- 1 Tbsp. regular salad dressing*
- 1 slice bacon*
- 1 Tbsp. cream cheese*
- 1 1/2 tsp. nut butters

*Saturated fat

Protein sources

Amounts in the following examples equal one ounce. For diabetes management, the suggested total protein intake is 4 to 9 ounces of lean protein per day. An average serving of meat is 3 ounces – about the size of a deck of cards.

Lean protein, best choice (55 calories):

- 1/2 cup cooked dried beans, peas, or lentils (125 calories) (1 carb choice)
- 2 egg whites
- 1/4 cup cottage cheese
- 2 Tbsp. Parmesan cheese
- 1 ounce beef flank, sirloin, tenderloin, or ground round (10% fat)
- 1 ounce pork tenderloin, lean ham, or Canadian bacon
- 1/4 cup tofu or tempeh
- 1-1/2 ounces fat-free cheese
- 1 ounce fresh or frozen fish
- 1/4 cup tuna, water packed
- 1 ounce poultry without skin
- 1 ounce reduced-fat cheese

Medium protein (75 calories):

- 1 large whole egg
- 1 ounce mozzarella or ricotta cheese
- 1/4 cup tuna, oil packed or canned salmon
- 1 ounce poultry with skin or ground turkey
- 1 ounce beef roast, T-bone steak, ground beef (15% fat), or meatloaf
- 1 ounce organ meats
- 1 ounce pork chops or loin roast
- 1 ounce lamb chops, leg, or roast

High-fat protein (100 to 200 calories):

- 2 Tbsp. peanut butter
- 1 ounce cheddar or Swiss cheese
- 1 ounce ground lamb
- 1 ounce beef ribs, corned beef, or blade roast
- 1 ounce pork spareribs or ground pork
- 1 ounce hot dog, sausage, or lunch meat
- 1 ounce nuts

6 DELICIOUS WAYS TO PREPARE VEGETABLES

- Roast squash with olive oil and rosemary, cherry tomatoes with garlic, or green beans with almonds.

- Dunk raw veggies in hummus or low-fat dip.

- Use spaghetti squash or zucchini noodles in place of pasta.

- Make a big batch of hearty vegetable soup.

- Grill zucchini, drizzle with olive oil, and sprinkle with oregano for a perfect side to any dish.

- Stir-fry colorful vegetables with peanut oil, a lean protein, and brown rice.

Healthy cooking tricks

You can still enjoy delicious meals when you have diabetes. Cooking at home can give you more control over what you eat. Start by making a few changes to the way you choose and prepare foods you already eat. It may help to share this with the person who does most of the cooking at home if that's not you.

Cook wisely

- Use cooking spray or small amounts of olive or canola oil instead of butter.
- Grill, broil, bake, and stir-fry instead of frying.
- Trim any visible fat off meat before cooking.
- Steam vegetables in water or low-sodium broth.
- Remove the skin before cooking chicken and turkey.
- Use lemon, herbs, and spices instead of salt while cooking. Aim for a daily goal of less than 2,300 mg of sodium (about 1 teaspoon of salt).

Eating healthy starts with shopping for and preparing foods that fit in the healthy plate.

Mindful **eating**

Discover how eating with intention and attention can give you the most joy and satisfaction from eating.

Love what you eat

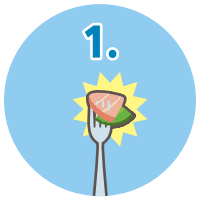
It's a good idea to eat foods and then see if they make you feel well, full, and satisfied. You are the expert of your own body! Decide ahead of time how you want to feel after your meal. Start eating with intention, such as "I'll eat only as much as I need to feel satisfied, but not stuffed."

- Eat when you're truly hungry (and before your blood sugar is too low), but don't skip meals.
- Eat to meet your body's needs.
- Eat with the goal of feeling *better* when you're done. If you treat food like medicine, your body will reflect it.

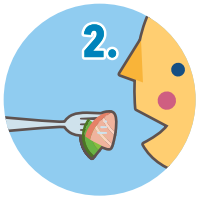
ACTIVITY

MINDFUL EATING

Mindful eating can help you shift from a "what do I do?" to a "how do I feel?" mindset. Ask yourself, "Am I actually hungry or am I just bored, tired, or near food?" Intuitive eating means connecting to your food rather than overeating or being restrictive. Savor the moment with these 6 easy steps:



Choose a piece of food. Make it something healthy that you love.



Place a forkful of the food in your mouth.

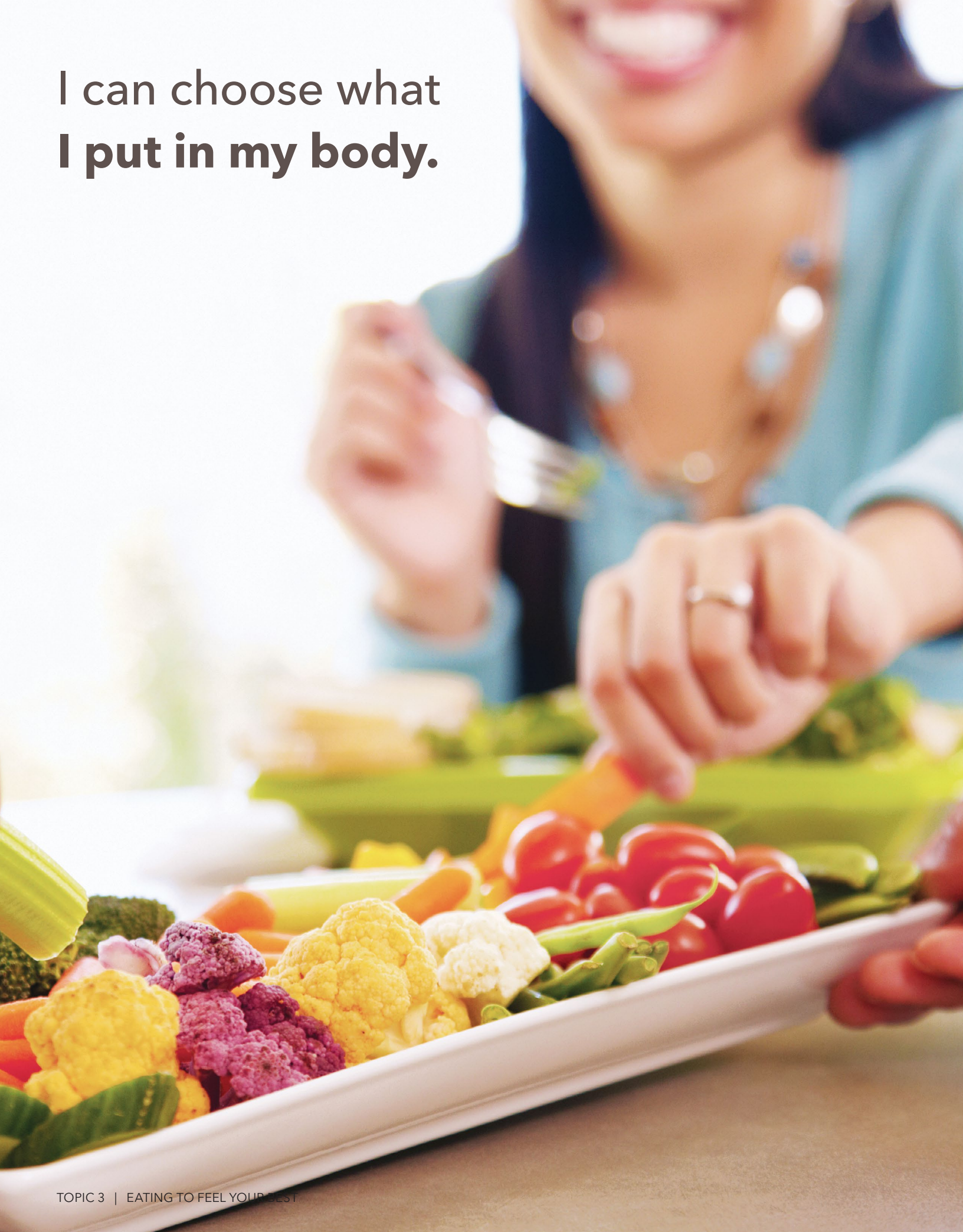
Chew slowly. Focus on the texture, flavor, aroma, and colors on your plate.

Swallow the food.

Put your fork down and wait a few seconds before taking a second bite. This will allow your stomach to send eating signals to your brain.

Be present in the moment and think about only the food. Reflect on the effort that went into growing and producing the food and this meal.

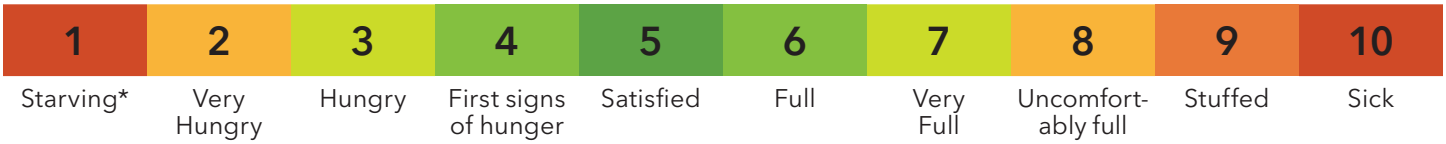
I can choose what
I put in my body.



WHEN TO EAT

You may need to eat at about the same time each day. Or you may have more flexibility with the timing of your meals, depending on things like taking medication. Some people find it helpful to eat every 4 to 5 hours. Tune in to your hunger and what your body needs. Use the Hunger and Fullness Scale to know when to start planning to eat (level 4), when to begin eating (level 2 or 3), and when to stop eating (level 5).

HUNGER AND FULLNESS SCALE



*At risk for low blood sugar

ACTIVITY

TACKLING YOUR TRIGGERS

- **Write down a situation or emotion that may trigger you to want to eat when you're not hungry.**

- **What is one way you can redirect your attention if you're not hungry?**

Eat plenty of vegetables, whole grains, low-fat protein, fruit, healthy fats, and nonfat or low-fat dairy (or dairy alternatives), with the goal of feeling better after a meal.

6 tips for celebrating holidays and special occasions

- Plan **ahead.** Bring your own recipes to events rather than depend on what's there. Bring a veggie platter with hummus or low-fat dip, for example.
- Snack **before you party.** Make sure you're not hungry when you go. Pick something that's small but filling, like a handful of almonds.
- Limit **alcohol.** Set your alcohol limit ahead of time (see page 35 for recommended serving size) and stick to it. Drink club soda or sparkling water.
- Be **a conscious eater.** Before you fill your plate, do a lap around the table to decide on what you'll get (and what you'll skip). Don't go back for seconds.
- Visualize **the healthy plate.** Picture sections using the healthy plate method to help control portions. Take a small serving and when you eat, chew slowly and savor each bite so that you feel satisfied.
- Mingle. Ask a friend to step outside for a walk to get away from the food.

Above all, focus on friends and family, not the food. And if you overdo it, don't stress. Just get back on track at the next meal.

Making healthy choices when **eating out**

Eating out and celebrating special occasions can be stress-free with these tips to help you stay on track and feel your best.

Making the healthy choice the easy choice

How do you make your environment work **for** you instead of against you when eating out or celebrating special occasions? You can still enjoy the things you love, just in a different way.

Easy substitution ideas

- **Naked burger:** Swap out your burger bun for crisp lettuce.
- **Oven-baked:** Choose baked sweet potato wedges instead of french fries.
- **Sugar-free drink:** Replace your sugary soda with sparkling water.

Taking control over your takeout

- Find a sandwich shop for healthier fast food.
- Choose healthy side options, like salad, vegetables, or fruit.
- Look up the nutrition information online before you go.
- Choose smaller portion sizes of items that are less healthy.
- Share larger servings with someone.
- Request healthy swaps like a tomato sauce instead of a cream sauce.
- Put part of large servings in a to-go container before you start eating.
- Use lemon juice, vinegar, salsa, or light or oil-based salad dressing.
- Drink water or unsweetened iced tea with your meal.
- Eat berries instead of traditional desserts.

ACTIVITY

BUILD YOUR BOWL

When you go to a buffet, you're faced with many different healthy and unhealthy choices. Which of the ingredients below can you choose to make sure your meal is healthy?

BEANS	MEAT & ALTERNATIVES		RICE	VEGETABLES	SIDES	
Black	Barbacoa (slow-cooked meat)	Chicken	White	Fajita veggies	Salsa	Tortilla chips
Refried		Soy chorizo	Brown	Lettuce	Guacamole	Queso
Pinto	Carnitas (pork)	Steak			Sour cream	Monterey Jack cheese

ACTIVITY

ORDERING OUT

Eating out with diabetes can still be delicious! Under each category, pick the healthy choices out of these popular foods or create your own version. You can also make a healthy swap, like steamed broccoli instead of fries or salad dressing on the side.

MENU

STARTERS

Supreme nachos

Veggies and hummus

Potato skins

Chicken wings

Bruschetta

Fried onion rings

Chicken satay
with spicy peanut dipping sauce

MAIN COURSES

Grilled chicken breast
on a bed of rice pilaf

Grilled pork chops
with fig & apple chutney

Cornmeal-crusted catfish
with red beans and rice

Butter-roasted rib eye steak
with grilled artichokes

Salmon
with mango salsa, steamed asparagus, and spaghetti squash

SIDES

Green beans

Mashed potatoes

Steamed broccoli

Macaroni and cheese

Glazed carrots

Black beans

SOUPS & SALADS

House salad

Greek salad

Chicken Caesar salad

Tortilla soup

Clam chowder

Minestrone soup

Broccoli cheese soup

BURGERS (served with side of fries)

Grilled turkey burger

Triple bacon burger

California chicken burger

Double cheeseburger

Black bean veggie burger

Bison burger

DESSERT

Angel food cake

Carrot cake with cream cheese frosting

Raspberry sorbet

Hot fudge brownie sundae

Low-fat frozen yogurt topped with fruit

Cherry pie with vanilla ice cream

SANDWICHES (served with side of chips)

Pulled pork

Turkey club

Reuben
with coleslaw

Chicken salad croissant

Philly cheesesteak

Sloppy joe

PIZZA

Four cheese pizza

Pepperoni pizza

Vegetable pizza

BBQ chicken pizza

Hawaiian pizza

Supreme pizza

MEAL AND SNACK IDEAS

Nutritious snacks or mini meals throughout the day can provide a steady supply of energy to your brain and muscles. They also keep your blood glucose levels well balanced. Eating more frequently can help meet your energy needs. And it can control hunger levels to prevent over-eating later in the day and into the evening.

Snacks with about 15 grams of carbohydrate and 7 or more grams of protein

- Apple slices with 2 tablespoons peanut butter
- String cheese or a slice of cheese (1 ounce) with a pear or 15 grapes or cherries
- 1 slice of toast with peanut or almond butter
- 1/4 cup nuts or seeds with a medium piece of fruit
- 1 cup of cantaloupe or other melon with 1/2 cup cottage cheese
- Carrots with 1/2 cup hummus
- 2 corn tortillas with melted cheese and veggies
- 1 slice toast with a scrambled egg
- 1/2 sandwich (tuna, grilled cheese, egg salad, peanut butter, etc.)
- 1/2 pita pocket with hummus, cheese, or peanut butter
- 15–20 tortilla chips with cottage cheese and salsa
- 1 cup of plain Greek yogurt or 1/2 cup sweetened yogurt with a sprinkle of granola
- Mini bagel with cream cheese or peanut butter
- 1 cup shelled edamame (whole soybeans)
- Tuna or egg salad on 10 Wheat Thins or 6 Triscuit crackers

Snacks with about 30 grams of carbohydrate and 7 or more grams of protein

- Smoothie – blend 1/2 cup plain yogurt with 1/2 banana, 1/2 cup frozen berries or other frozen fruit, and 1 cup of almond or coconut milk
- 5 whole-grain crackers with cheese and a nectarine or peach
- 1/2 cup of trail mix and a string cheese
- 1/2 tuna sandwich with 12 cherries
- 1/2 sandwich (tuna, grilled cheese, egg salad, peanut butter, etc.) with 8 ounces of milk

Additions that will add little carbohydrate

- Veggies, any type – sugar snap pea pods, jicama, bell peppers, carrots, broccoli, etc.
- Cheese, cottage cheese, nuts, seeds, eggs, meat, and fish (good protein sources)
- Pickles, olives

BREAKFAST IDEAS

Start your day with a variety of foods to help keep you feeling satisfied and energized. Breakfast is a great time to include protein, whole grains, and fresh fruit or vegetables. Include some nuts or seeds for heart-healthy fat, fiber, and protein.

Menu suggestions with 30–45 grams carbohydrate

- 1 cup oatmeal, cooked (30g carb)

  1/2 cup milk (6g carb, 4g protein)

  1/4 cup dry roasted walnuts or raw almonds (7g protein, l5g fat)

  Sweeten with cinnamon, vanilla extract, 1 teaspoon honey or brown sugar (5g carb)

- 1/2 100% whole-wheat bagel (25g carb)

  2 tablespoons cream cheese (7g fat), or

  2 tablespoons natural peanut butter (6g protein, 16g fat) and 1 teaspoon jelly (4g carb)

- 1/2 cup cottage cheese (l4g protein)

  1/2 cup berries or fresh fruit (5–15g carb)

  1/4 cup granola or whole-grain cereal (10–15g carb)

  10 nuts sprinkled with cinnamon (5g fat)

- 1 100% whole-wheat English muffin (20g carb)

  2 tablespoons natural peanut butter (6g protein, 16g fat)

  1 teaspoon jam (5g carb)

- 2 4-inch whole-grain waffle squares (26g carb, 6g fat)

  1 teaspoon fruit jam (5g carb)

  2 tablespoons natural peanut butter (6g protein, l6g fat)

- 1 100% whole-wheat English muffin (20g carb)

  1 egg (7g protein, 4.5g fat)

  Soy sausage patty (5–7g protein)

  Lettuce, spinach, tomato slices

  Ketchup or hummus for spread

- 1–2 cooked eggs (7–14g protein, 4–8g fat)

  1 cup oatmeal, cooked (30g carb)

  1/4 cup grated cheese (7g protein, 8–10g fat)

  Chopped spinach, salsa

- Breakfast burrito

  1 flour tortilla (25g carb)

  Filled with 1–2 scrambled eggs (7–14g protein, 4–8g fat), chopped veggies, 1/4 cup grated cheese (7g protein, 8g fat), and salsa

LUNCH AND DINNER IDEAS

Aim for fiber-rich servings of whole grains, fruit, vegetables, and beans. Add a lean protein source from meat, fish, eggs, beans, soy, or dairy. It's OK to add some heart-healthy fats from oil, nuts, seeds, or avocado.

Menu suggestions with 30–45 grams carbohydrate

- Tuna pasta salad

  1 cup cooked whole-wheat pasta (40g carb)

  3 oz. drained tuna (21g protein)

  1/2 cup shredded carrot

  1/2 cup shredded zucchini

  Minced celery and onion

  2 tablespoons Italian dressing (10g fat)

  Mix everything together and serve on a bed of salad greens

- Pita pocket sandwich

  1 whole-wheat pita (30g carb)

  Fill with 2–3 ounces salmon or tuna salad (14–21g protein), chopped celery, shredded carrot, lettuce, and 1 tablespoon mayo (5g fat)

  Serve with raw veggies

- Sandwich

  2 slices whole-grain bread (40g carb), 2–3 oz. tuna or egg salad (14–21g protein), light mayo or mustard, tomato slices, and lettuce

  Serve with carrot sticks and tossed salad with 2 tablespoons salad dressing (l0g fat)

- 1 cup vegetable, bean, or tomato soup (carbs vary)

  1 slice whole-wheat bread (20g carb)

  Topped with 1 ounce melted mozzarella cheese (7g protein, 5g fat)

  Carrot sticks, broccoli pieces, and/or celery sticks

- 1/2 cup cottage cheese (14g protein, 4g fat)

  6 slices Akmak or other whole-grain cracker (20g carb, 4g protein, 4g fiber)

  Tossed salad with 2 tablespoons dressing (10g fat)

  10 nuts (5g fat)

  1/2 cup fresh fruit (15g carb)

- Chefs salad

  1–2 hard-boiled eggs (7–14g protein)

  1 ounce Swiss cheese (7g protein, 5g fat)

  2 cups mixed greens and veggies

  2 tablespoons Italian dressing (10g fat)

  Serve with 10–15 whole-grain crackers (25–30g carb)

- Veggie-potato

  8-ounce baked potato (30g carb), topped with 1 cup broccoli, tomatoes, green onions, and mushrooms; 1/4 cup beans (10g carb, 3g protein); 1/4 cup grated Cheddar cheese (7g protein, 8g fat); salsa, and 2 tablespoons plain Greek yogurt

  3–4 ounces broiled halibut (21–28g protein, 6–8g fat)

  Medium baked sweet potato or yam, or 1 cup winter squash (30g carb)

  Steamed broccoli with lemon and pepper

  Side salad with 2 tablespoons balsamic vinaigrette (10g fat)

- 3–4 ounces baked salmon fillet (18–24g protein, 10–14g fat)

  Steamed greens, carrots, and zucchini

  1 cup cooked quinoa, whole-wheat couscous, buckwheat, or brown rice (45g carb)

  Green salad with 1–2 tablespoons dressing (5–10g fat)

- Fajita

  1/2 cup black or pinto beans (20g carb, 6g protein) with 3 corn tortillas (25g carb) or 1 whole-wheat flour tortilla (25g carb)

  Top with salsa, lettuce, tomato, peppers, and onion; 1 ounce cheddar cheese (7g protein, 8g fat); 1/4 avocado (10g fat), 1/4 cup plain Greek yogurt (3g carb, protein and fat content varies)

- Tacos

  2–3 corn tortillas (20–30g carb)

  Filled with 1/2 cup refried beans (20g carb, 6g protein), 1 ounce cheddar cheese (7g protein, 7g fat), 1/4 cup plain Greek yogurt (3g carb, protein and fat content varies), salsa, lettuce, tomato, peppers, and onion

- Leftover protein from last night's dinner (grilled meat or fish) over salad greens with a dollop of cottage cheese (protein) and a drizzle of a favorite salad dressing (fat).

HEALTHY PLATES

Wondering how to use the plate method with meals that you eat every day, whether you're at home or eating out? Use the examples below to view how you can eat what you love, with portions that will keep you satisfied but not stuffed.

BREAKFAST

AVOCADO TOAST 2 WAYS
(Pick one)

PROTEIN
Egg

VEGETABLES
Tomato

GRAIN/ STARCH
Whole-grain bread

HEALTHY FATS
Avocado

Add **nonfat plain Greek yogurt** and **berries** for a complete meal.

HUEVOS A LA MEXICANA
(Mexican scrambled eggs)

PROTEIN
Pinto beans
Egg

VEGETABLES
Tomato
Serrano pepper
Onion

GRAIN/ STARCH
Corn tortillas

BREAKFAST BURRITO

PROTEIN
Black beans
Egg
Low-fat cheese

VEGETABLES
Tomato
Red onion
Serrano pepper
Red bell pepper

GRAIN/ STARCH
Whole-wheat tortilla

HEALTHY FATS
Avocado

VEGGIE OMELET WITH ENGLISH MUFFIN

PROTEIN
Egg

VEGETABLES
Mushrooms
Bell pepper
Spinach

GRAIN/ STARCH
Whole-wheat English muffin

OATMEAL WITH BLUEBERRIES AND ALMONDS

DAIRY AND ALTERNATIVES
Nonfat milk

GRAIN/ STARCH
Oatmeal

FRUIT
Blueberries

HEALTHY FATS
Almonds

EGG BREAKFAST MUFFINS

SERVINGS	CARBS PER SERVING	COOKING TIME
3	35 g	30 min

RECIPE INGREDIENTS

PROTEIN

6 large eggs

¼ cup shredded low-fat Parmesan cheese

VEGETABLES

½ yellow onion, chopped

2 cloves garlic, minced

½ zucchini, shredded

1 red bell pepper, chopped

2 cups arugula, roughly chopped

FLAVORINGS

1 tablespoon olive oil

Salt and pepper

Nonstick cooking spray

DIRECTIONS

1. Preheat oven to 375°F. Coat a muffin tin with spray and set aside.
2. In a large skillet over medium heat, drizzle olive oil and sauté the onion and garlic for about 4 minutes until tender and fragrant.
3. Add zucchini and red bell pepper, cooking 2 more minutes.
4. Fill each muffin tin about two-thirds full with veggie mixture.
5. In a large bowl, whisk together eggs, arugula, cheese, and salt/pepper, and fill each muffin tin evenly. Be careful not to overfill.
6. Bake for about 20 minutes, until muffins have risen and are slightly browned.
7. Freeze leftover muffins. For best results, thaw in refrigerator overnight, then microwave until warm for a breakfast on the go.
8. Serve 2 muffins with toast, yogurt, and fruit. (Carbs listed are for the meal pictured.)

FOR A COMPLETE MEAL

GRAIN/ STARCH

1 slice of whole-grain toast

DAIRY AND ALTERNATIVES

⅔ cup nonfat plain Greek yogurt

FRUIT

1 cup of mixed berries (blueberries, strawberries, and raspberries)

CHINESE

Choose dishes that are full of steamed veggies and lean protein (shellfish, fish, chicken, tofu). Use chopsticks to slow down your eating. That allows your stomach time to send signals to your brain that you are full.

CHOOSE MORE OFTEN

- Grilled seafood (shrimp with vegetables, scallops)
- Moo shu/Moo shu gai pan chicken (limit the sauce)
- Stir-fried fish or chicken with vegetables
- Tofu
- Steamed brown rice
- Veggie spring rolls (not fried)
- Lettuce cups
- Steamed dumplings or pot stickers

CHOOSE LESS OFTEN

- BBQ pork/ spareribs
- General Tso's chicken
- Fried appetizers (wontons, egg rolls)
- Fried lo mein, pan-fried noodles, or fried rice
- Fried wonton soup
- Crab rangoon
- Orange chicken

LETTUCE CUPS

PROTEIN
Skinless chicken

VEGETABLES
Lettuce
Onion
Water chestnuts
Green onion

GRAIN/ STARCH
Rice noodles

FRUIT
Orange

HEALTHY FATS
Peanuts

FLAVORINGS
Hot chili sauce

Lettuce cups are a **healthy and full-of-flavor appetizer** sure to please any crowd!

INDIAN

Menus at Indian restaurants are filled with items that are vegetable-based or use lean cuts of meats.

CHOOSE MORE OFTEN

- Basmati rice
- Chickpeas
- Vegetable dishes
- Lean meats, poultry, and seafood
- Lentil soup
- Tikka, tandoori, or kebab preparations
- Yogurt-based sauces

CHOOSE LESS OFTEN

- Ghee (clarified butter)
- Molee (coconut milk or cream)
- Any fried foods
- High-fat beef and lamb dishes
- Creamy curry sauce

CHICKEN TIKKA MASALA

PROTEIN
Chicken

VEGETABLES
Cucumber
Red onion
Tomato

GRAIN/ STARCH
Whole-grain naan

DAIRY AND ALTERNATIVES
Nonfat plain Greek yogurt

Whether you make curry at home or order at a restaurant, chances are you're going to have some servings left over. Remember to ask for a **to-go container** so you can pack some for tomorrow's lunch!

ITALIAN

Fresh and tasty ingredients are a big part of Italian cuisine. The key is to choose vegetables for pizza toppings and side dishes, and go for poultry or fish that is grilled or braised. Also choose sauces that don't tip the scales in calories, fat, and carbs. You can enjoy the full flavor of Italian cuisine without having to compromise your healthy diabetes meal plan.

CHOOSE MORE OFTEN

- Bruschetta
- Minestrone soup
- Thin pizza with veggie toppings
- Mozzarella, basil, and tomato panini
- Roasted eggplant
- Italian ice or fat-free cappuccino
- Whole-wheat spaghetti with turkey meatballs
- Garden salad
- Grilled fish
- Steamed clams
- Cioppino
- Shrimp scampi
- Chicken piccata

CHOOSE LESS OFTEN

- Alfredo or heavy "white" cheese sauce entrees
- Fried calamari and shrimp
- Spinach and artichoke dip
- Deep-dish pizza
- Fried mozzarella
- Meatball marinara sub
- Sausage and pepperoni pizza toppings
- Chicken parmigiana (or any fried entrees)
- Steak gorgonzola
- Tiramisu

AMERICAN

American cuisine features flavors from the melting pot of traditional American cooking with flavors from other cultures. It can be a part of your healthy eating lifestyle.

CHOOSE MORE OFTEN

- Broiled, roasted, or grilled chicken or fish sandwich
- Grilled veggie burger without sauce
- Garden salad with light dressing
- Baked potato with veggies
- Sliced turkey or lean roast beef sandwich (without mayonnaise)
- Fresh fruit
- Veggie chili

CHOOSE LESS OFTEN

- Lunch meat and cold cuts
- Fried foods (chicken, fish, french fries)
- Bacon
- Hot dogs
- White bread, rice, pasta
- Cream-based soups
- Pie

TURKEY AND VEGGIE MEATBALLS ON PASTA

PROTEIN
Ground turkey
Low-fat cheese

VEGETABLES
Asparagus
Zucchini
Onion
Tomato

GRAIN/ STARCH
Whole-wheat pasta
Breadcrumbs

Give a family favorite a healthy makeover by packing these meatballs with **turkey and veggies.**

THIN-CRUST VEGGIE PIZZA

PROTEIN
Low-fat mozzarella

VEGETABLES
Red onion
Black olives
Green pepper
Mushrooms
Lettuce
Cucumber
Radish

GRAIN/ STARCH
Whole-wheat pizza dough

1 serving = **2 slices**

DELI SANDWICH

PROTEIN
Skinless chicken
Swiss cheese

VEGETABLES
Lettuce
Red onion
Banana pepper
Tomato

GRAIN/ STARCH
Whole-grain bread

FRUIT
Apple

Swap processed lunch meat for a healthier option like **grilled chicken.**

OVEN-BAKED CHICKEN

WITH GREEN BEANS, COLLARD GREENS, AND ROASTED SWEET POTATOES

SERVINGS	CARBS PER SERVING	COOKING TIME
4	37 g	45 min

RECIPE INGREDIENTS

PROTEIN

4 three-ounce skinless, boneless chicken breasts

GRAIN/ STARCH

4 cups cornflakes, crushed

4 sweet potatoes, peeled, cut into 1-inch pieces

DAIRY AND ALTERNATIVES

½ cup nonfat plain Greek yogurt + extra for serving

VEGETABLES

1½ pounds green beans, trimmed

2 cloves garlic, minced

6 scallions, thinly sliced (white and green parts separated)

2 bunches collard greens, ribs and stems removed, torn into pieces

FLAVORINGS

½ teaspoon paprika

1 teaspoon dried thyme

Salt and pepper

Nonstick cooking spray

1 tablespoon fresh lemon juice

1 teaspoon grated lemon zest

HEALTHY FATS

2 tablespoons + 2 teaspoons olive oil

DIRECTIONS

1. Preheat oven to 425°F. Line a baking sheet with foil and coat with cooking spray. Set aside. Combine the cornflakes, 1 tablespoon olive oil, paprika, and thyme in a medium bowl; season with salt and pepper. Combine the yogurt, lemon juice, 1 tablespoon water, 1/4 teaspoon salt, and a few grinds of pepper in a large bowl; add the chicken and toss to coat.
2. Place the sweet potatoes on a rimmed baking sheet lined with foil. Drizzle with olive oil and season with salt and pepper; turn to thoroughly coat. Roast potatoes, rotating sheet halfway through, until tender and beginning to brown, 30 to 35 minutes.
3. Meanwhile, dredge the chicken in the cornflake mixture. Move to the prepared baking sheet. Bake on the upper oven rack until lightly browned, about 15 minutes. Flip the chicken and bake until golden brown and no longer pink in the center, about 7 to 10 more minutes.
4. Toss the green beans, garlic, scallion whites, and 1 tablespoon olive oil in a bowl; season with salt and pepper. Spread on another baking sheet, and roast until tender, about 20 minutes. Toss with the lemon zest and scallion greens.
5. In a medium pan, heat 2 teaspoons of olive oil on medium-high until hot. Add the collard greens and white bottoms of the scallions; season with salt and pepper. Cook, stirring occasionally, 2 to 3 minutes, or until the greens have wilted. Top with roasted sweet potatoes, a dollop of yogurt, and scallions. Serve alongside chicken and green beans.

MEDITERRANEAN

A Mediterranean diet is filled with fruits, vegetables, whole grains, legumes, nuts, olive oil, fish, poultry, and red wine in moderation. Red meat is included less often.

CHOOSE MORE OFTEN

- Vegetable kebabs
- Chicken shawarma
- Greek salad
- Hummus
- Falafel
- Tabbouleh
- Baba ganoush (eggplant dip)
- Lentil soup
- Stuffed grape leaves

CHOOSE LESS OFTEN

- Lamb
- Beef
- Garlic fries
- White pita bread

KEBABS

PROTEIN

Shrimp
Chicken
Feta cheese

VEGETABLES

Zucchini
Mushrooms
Red onion
White onion
Red/green bell pepper
Summer squash
Kalamata olives
Cherry tomatoes

GRAIN/ STARCH

Brown rice

Kebabs are a great **barbecue or picnic** option! Grill some lean protein with as many colorful veggies as you want!

THAI

Choose grilled meats instead of fried. Avoid fried foods (spring rolls, fried meats, etc.) and stir-fried noodle dishes (pad thai, etc.). Choose broth-based soups.

CHOOSE MORE OFTEN

- Satay (lean grilled meat on a stick with peanut sauce)
- Sautéed tofu
- Veggie curries (add lean protein if you like)
- Hot and sour shrimp soup
- Summer rolls
- Green papaya salad
- Cashew chicken

CHOOSE LESS OFTEN

- Pla lard prik (fried fish)
- Fried shrimp or fish cakes
- Coconut shrimp soup
- Dipping sauces (high in sodium)
- Massaman curry (made with more coconut milk and cream than others and features rich duck, fatty beef, or dark-meat chicken)

RED CURRY WITH VEGGIES

VEGETABLES

Onion
Red/yellow bell pepper
Carrots
Kale

GRAIN/ STARCH

Brown jasmine rice

Simply replacing white rice with brown rice has been shown to **lower blood sugar levels.**

MEXICAN

Mexican restaurants can be a good option for people with diabetes. They offer low-calorie and low-carb options like beans, grilled vegetables, and chicken, not to mention flavorful salsas made with fresh tomatoes, herbs, and spices.

CHOOSE MORE OFTEN

- Entrees made with soft corn tortillas
- Ceviche and seafood cocktails
- Bean enchiladas with cilantro and onions on top
- Salsa
- Fresh sautéed vegetables
- Black or pinto beans
- A small amount of guacamole or fresh avocado salad
- Grilled chicken or veggie fajitas – lunch-sized portions are great options
- Fresh salads with grilled chicken (skip the giant tortilla shell)
- Caldos (veggie, fish, or chicken soups)
- Grilled chicken or seafood, whole beans, or steak (not ground beef) fillings

CHOOSE LESS OFTEN

- Fried dishes (chimichangas, taquitos, empanadas, chile relleno)
- Refried beans
- Excess tortilla chips
- Sour cream
- Sweet alcohol drinks (cocktails)
- Ground beef dishes
- Large platters of nachos

FAJITA SKILLET

PROTEIN
Chicken
Black beans

VEGETABLES
Bell pepper
Onion
Tomato
Serrano pepper

GRAIN/ STARCH
Corn tortillas
Rice

HEALTHY FATS
Avocado

FISH TACOS

PROTEIN
Halibut

VEGETABLES
Cabbage
Carrots
Radish
Onion
Tomato

GRAIN/ STARCH
Corn tortillas

CEVICHE

PROTEIN
Tilapia

VEGETABLES
Serrano pepper
Red onion
Tomato

GRAIN/ STARCH
Corn tortillas

HEALTHY FATS
Avocado

Oven-bake a corn tortilla for a **crisp tostada.**

MIX AND MATCH YOUR MEALS

Choose one item in each column to create a meal. Decide whether a fruit and/or dairy or dairy alternative works for your plate!

PROTEIN

¼ of your plate

GRAIN/STARCH

¼ of your plate

VEGETABLES

½ of your plate

PROTEIN	GRAIN/STARCH	VEGETABLES
Baked fish	Sweet potatoes	Asparagus
Grilled shrimp	Potatoes	Green beans
Tuna canned in water	Whole-wheat crackers	Celery
Low-fat cottage cheese	Garbanzo beans	Mixed salad greens
Skinless chicken breast half	Cooked wild rice	Sugar snap peas
Low-fat cheese	Whole-grain bread	Carrot sticks and radishes
Skinless turkey breast cutlet	Corn bread	Roasted broccoli and cauliflower
Egg product, scrambled	Whole-wheat English muffin	Diced green and red sweet peppers
Tofu	Cooked brown rice	Bok choy

Energy in, energy out

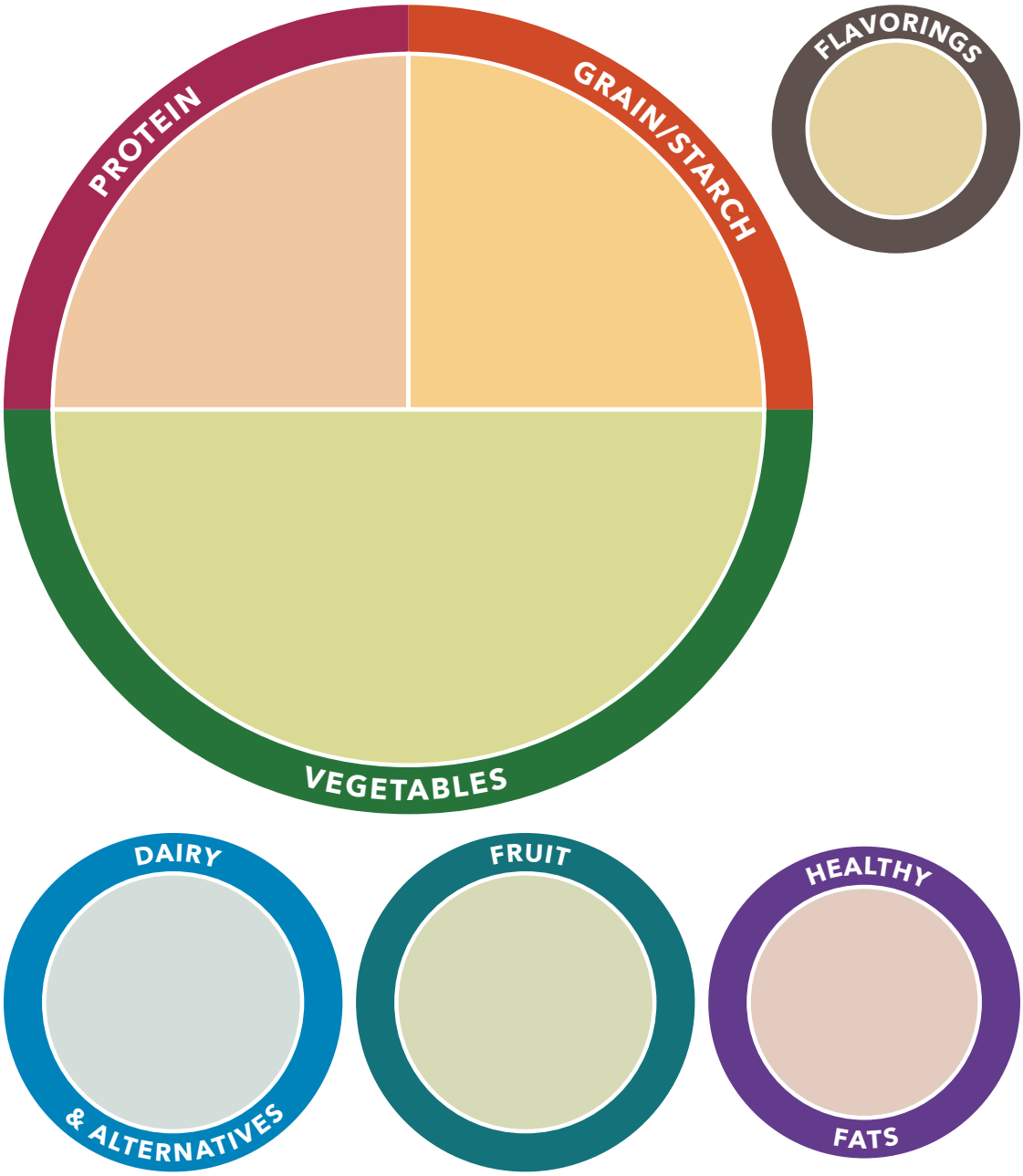
Try to break up your time spent sitting with 3 or more minutes of physical activity – such as walking, leg raises, or stretching your arms over your head – every 30 minutes (in addition to getting the recommended 150 minutes a week of moderate exercise) to feel your best.

Whether you're at home or on the go, the healthy plate method can help you find an eating style that works for you.

ACTIVITY

EAT FOR THE HEALTH OF IT

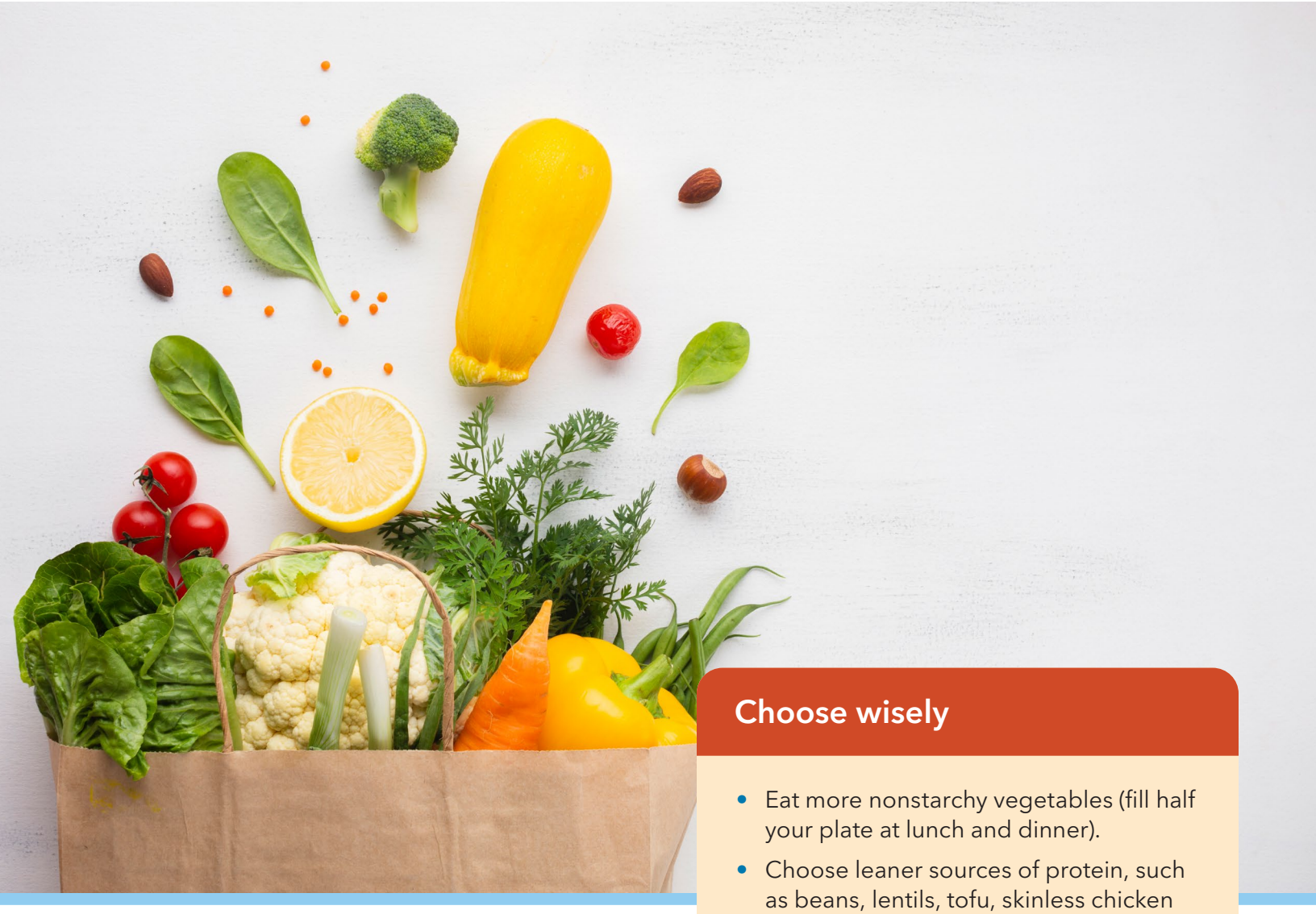
Write down all your favorite foods that fit in the healthy plate below for breakfast, lunch, dinner, and a snack. Then add them to your shopping list on page 76!



Whether you're at home or on the go, the healthy plate method can help you find an eating style that works for you.

Smart grocery shopping, label reading, and cooking

Gain the knowledge to shop for and prepare healthy foods with confidence.



A smart grocery cart

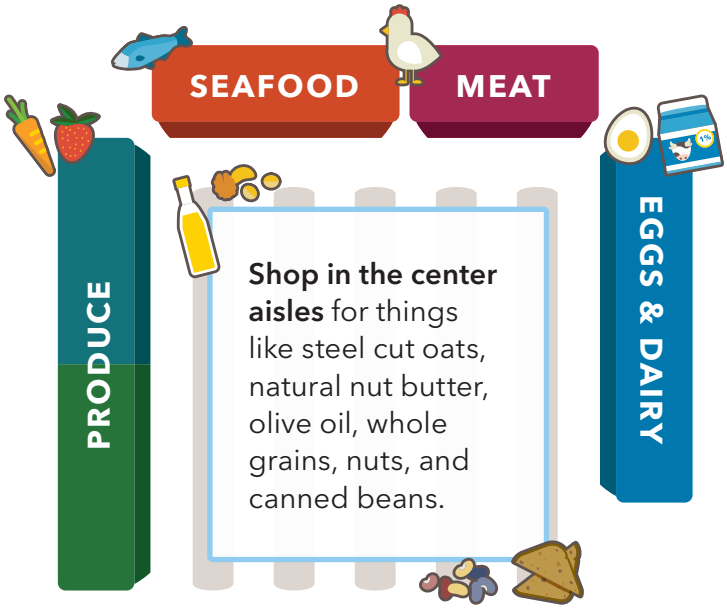
Eating healthy with diabetes begins with knowing what to look for while shopping for your food. It's easier to eat healthy when you only have healthy foods in your fridge and pantry!

Choose wisely

- Eat more nonstarchy vegetables (fill half your plate at lunch and dinner).
- Choose leaner sources of protein, such as beans, lentils, tofu, skinless chicken or turkey, and fish, instead of red meat.
- Use low-fat or nonfat milk instead of whole or 2%.
- Limit processed foods like hot dogs, ham, bacon, and deli meat.
- Choose fresh foods over packaged foods.

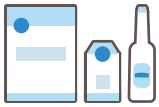
HEALTHY SHOPPING 101

- **Plan ahead.** Create a list of foods for breakfast, lunch, dinner, and snacks that fit in the healthy plate. Then plan your meals for the week.
- **Shop the outside aisles,** where fresh foods like fruits, veggies, dairy, meat, and fish are usually located.
- **Don't shop hungry.** Bring a snack if needed!
- **Choose "real" foods,** like 100% whole-grain items with few things added. Avoid foods with ingredients you can't pronounce.
- Visit **ams.usda.gov/local-food-directories/farmersmarkets** to find a farmers market near you. It's a great place for finding healthy foods!



Tips for eating healthy on a budget

Pack your lunch.



Choose generic brands.

Look for produce that's in season.

Freeze meals for later.

Buy in bulk if you're feeding many people. Buy smaller portions for 1 to 2 people.

Cook large batches and store as leftovers for stews, stir-fries, and salads.

Buy frozen or canned fruits (low sugar) and vegetables (low sodium).

Get a slow cooker. Throw veggies, protein, grains/starch, and liquid in it and have meals for a week!

Sample healthy shopping list

VEGETABLES
(fresh, frozen, or canned without added sodium, fat, or sugar)

NONSTARCHY

- Mushrooms
- Okra
- Onions
- Peppers
- Radishes
- Salad greens (chicory, endive, escarole, lettuce, romaine, spinach, arugula, radicchio, watercress)
- Spaghetti squash
- Sprouts
- Sugar snap peas
- Swiss chard
- Tomatoes
- Water chestnuts
- Zucchini
- Amaranth or Chinese spinach
- Artichokes
- Asparagus
- Beans (green, wax, Italian)
- Bean sprouts
- Beets
- Brussels sprouts
- Broccoli
- Cabbage (green, bok choy, Chinese)
- Carrots
- Cauliflower
- Celery
- Cucumbers
- Greens (collard, kale, mustard, turnip)
- Jicama

STARCHY

- Pumpkin
- Sweet potatoes
- Winter squash
- Corn
- Peas
- Potatoes

FRUITS
(fresh, frozen, or canned without added sugar)

- Apples
- Apricots
- Berries
- Cherries
- Kiwis
- Oranges
- Peaches
- Pears
- Plantains
- Plums
- Strawberries

HEALTHY FATS

- Avocado
- Natural nut butter
- Nuts
- Olive oil

GRAINS + CEREALS

- Air-popped popcorn
- Brown or wild rice
- Corn tortillas
- Grits
- Steel cut oats
- Wheat-bran cereal
- Whole-grain bread
- Whole-grain cracker

DAIRY (LOW-FAT OR NONFAT)
and alternatives

- Milk
- Plain yogurt
- Unsweetened almond or soy milk

PROTEIN

- Beans
- Cheese
- Eggs
- Fish
- Lentils
- Skinless chicken
- Tofu
- Veggie burgers

My healthy shopping list

VEGETABLES
(fresh, frozen, or canned without added sodium, fat, or sugar)

NONSTARCHY

STARCHY

FRUITS
(fresh, frozen, or canned without added sugar)

HEALTHY FATS

GRAINS + CEREALS

DAIRY (LOW-FAT OR NONFAT)
and alternatives

PROTEIN

KNOW THE (NUTRITION) FACTS

Reading nutrition labels can help you make a healthy choice.

ORIGINAL LABEL

Nutrition Facts

Serving Size 1 slice (41g)
Servings Per Container 23

Amount Per Serving	
Calories 109	Calories from Fat 10
	% Daily Value*
Total Fat 1g	**2%**
Saturated Fat 0g	**0%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 156mg	**6%**
Total Carbohydrate 15g	**5%**
Dietary Fiber 3g	**12%**
Sugars 2g	
Protein 5g	
Vitamin A	0%
Vitamin C	2%
Calcium	4%
Iron	5%

* Percent Daily Values are based on a 2,000 calorie diet. Your daily value may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

NEW LABEL

Nutrition Facts

23 servings per container
Serving size **1 slice (41g)**

Amount per serving
Calories **109**

	% Daily Value*
Total Fat 1g	**2%**
Saturated Fat 0g	**0%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 156mg	**6%**
Total Carbohydrate 15g	**5%**
Dietary Fiber 3g	**12%**
Total Sugars 2g	
Includes 0g Added Sugars	**0%**
Protein 5g	
Vitamin D 0mcg	0%
Calcium 52mg	4%
Iron 0.9mg	5%
Potassium 69mg	2%

* 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.

Note: The Food and Drug Administration (FDA) is making changes to the label. This will make it easier to identify what's in your food.

1. Check serving size.

Look at the serving size and the number of servings per container or package.

All information is for one serving.

2. Check these for heart health.

- Choose foods that are lower in total fat, saturated fat, cholesterol, and sodium (salt).
- Keep trans fat to 0.

3. Know your total carbs.

This number tells you how many carbs (including grams of sugar) are in one serving and is useful if you are carb counting. See page 40 for guidelines.

4. Is it nutritionally valuable?

Choose foods that are nutrient dense and a good source of fiber.

Make it work **for you**

Customize a personal action plan for eating healthy that fits your lifestyle.

Make it personal

Use a sticky note to write a small commitment toward a goal. This will be your "personal action plan." Use proactive words like "I choose to." Make it specific, realistic, and something you can do this week. Put it where you will see it every day.

Under your personal action plan, write the names of 2 people who can help you reach your goal – one from your health care team (doctor, educator, dietitian) and one from your social circle (partner, friend, child).

Example:

- **On a scale of 0 to 10, how important is it for you to change right now?**

0 1 2 3 4 5 6 7 8 9 10

Not at all important — Extremely important

- **On a scale of 0 to 10, how confident are you that you could make this change?**

0 1 2 3 4 5 6 7 8 9 10

Not at all confident — Extremely confident

TIPS I LEARNED TODAY/FROM OTHERS

TOPIC 4

Finding your **balance**

How stress **affects you**

Recognize the symptoms and effects of stress on your mind and body so you can be prepared to manage it successfully.

Fight, flight, or freeze

Stress is a normal part of life – in moderation it can help you reach your goals – but getting sick from it is not. It can be positive (planning a wedding) or negative (losing a job). Too much stress for too long creates problems. When your body thinks it's under attack, your body creates energy for the "fight, flight, or freeze" response. With diabetes, insulin is not always able to let this extra energy into the cells, which causes high blood sugar.

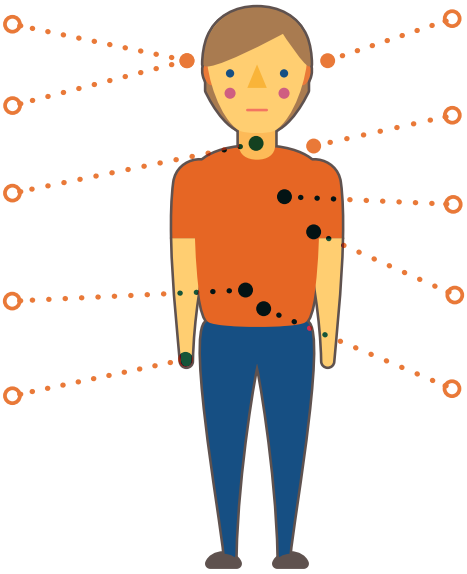
SYMPTOMS OF STRESS

Symptoms of stress in the mind:

- Anxiety or getting angry easily
- Sadness or feelings of helplessness
- Thinking about the same things again and again
- Moods that change quickly
- Poor concentration

Symptoms of stress in the body:

- Headaches
- Lightheaded
- Faster breathing
- Stomach in "knots"
- Sweaty and/or trembling hands
- Increased muscle tension



- Dizziness
- Stiffness across shoulders
- Rapid heartbeat
- Sweating
- Nausea
- Rise in blood pressure, blood sugar

Symptoms of stress in behavior:

- Reduced activity, no energy
- Overactivity and inability to rest (restlessness)
- Using drugs, tobacco, food, or alcohol to relieve tension
- Difficulty concentrating on one task
- Sleep problems (trouble falling asleep, staying asleep, or sleeping too much)

PERCEIVED STRESS SCALE

Rate your perceived stress (how stressed you feel) on a scale from 1 to 10 (1 = calm and 10 = very stressed) each evening. Record your blood sugar levels before breakfast and dinner and at bedtime. Look for blood sugar level patterns on days when your perceived stress is high, medium, and low.

THE PERCEIVED STRESS SCALE

1 2 3 4 5 6 7 8 9 10

Calm	A little stressed	Stressed	Very stressed
			
You easily cope with life's day-to-day pressures.	Most of the time you feel OK, but you struggle when stress does present itself.	You are regularly dealing with some stress in your life.	You feel so stressed out that it's having an effect on your life and relationships.
Keep up the good work by using meditation or mindfulness regularly.	Try to think encouraging, positive thoughts when stress starts to build.	Find someone you trust to talk to about your problems.	Get help from a behavioral health specialist.

DATE	BLOOD SUGAR LEVEL			PERCEIVED STRESS
	Before breakfast	Before dinner	At bedtime	
				1 2 3 4 5 6 7 8 9 10
				1 2 3 4 5 6 7 8 9 10
				1 2 3 4 5 6 7 8 9 10
				1 2 3 4 5 6 7 8 9 10
				1 2 3 4 5 6 7 8 9 10

You're not alone

Everyone has good days and bad days. It's normal to feel discouraged. But if you're feeling any of the following, it may be a good idea to reach out to someone who can help, like your doctor, diabetes educator, or someone in your support system.

- Lack of interest or pleasure in activities
- Not wanting to talk to family or friends about your diabetes or other stressors
- Trouble falling or staying asleep, or sleeping too much
- Not seeing the point of taking care of yourself
- Feeling as though diabetes is defeating you or that you can't take care of yourself

Depression is hard to put into words. We're here to help break the silence. Visit **findyourwords.org** or call the Kaiser Permanente Mental Health Department at **1-855-632-8280** for crisis intervention, guidance, and resources. Available 24 hours a day, 7 days a week.

FREQUENTLY ASKED QUESTIONS

"How does stress affect my blood sugar?"

Your body reacts to stress by becoming more insulin resistant and increasing sugar in your blood. If you have so much on your mind that you skip meals or forget to take medicine, that will also affect your blood sugar. Using tips from this section for managing stress can help you feel a sense of calm and balance.

Your body reacts to stress by becoming more insulin resistant and increasing blood sugar. It's normal to feel overwhelmed by diabetes, but you are not alone.

Managing **stress**

Learn skills you can practice to train your mind and build mental resilience to stress. Resilience is the ability to "bounce back."

Building resilience

The way you **think** about stress affecting your health can make a difference no matter how much stress you have in your life. You can view stress as something hurting your body (and it can) or as something that can give you strength and energy to overcome difficulties. Your mind and body are linked. If you train the mind, the body will follow.

Remember: You can attend the Kaiser Permanente "Diabetes Basics" class as many times as you need to get support from others who know what you're going through.

RESTORE AND RECOVER

Start with relaxing. Unplug from your phone or computer, get outside, or call a friend and do something you enjoy.

Get support, give support

Map out your social network. Who is the first person you call when you feel like talking? Make a list of your social network on the right and keep it handy when you need to call on someone for support.

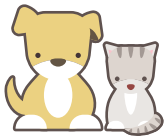
On the flip side, helping someone else can give meaning and purpose to your life. It can enhance your ability to manage stress and build resilience by giving social support.

Create a care package.

Tutor a child.

Donate something you don't use.

Take the time to teach someone a skill you know.



Volunteer at an animal shelter (spending time with animals lowers stress levels!).

Support a charity of your choice.

Write it down

Writing a list of positive events in a gratitude journal has been shown to create a sense of calm. Start with writing down 5 things you feel grateful for (big or small) on the right.

MY SOCIAL NETWORK

I can count on:

MY MINI GRATITUDE JOURNAL

I am grateful for these 5 things:

1.

2.

3.

4.

5.

Give your mind some rest

Try meditating for one minute a day to give your emotions, brain, and body time to recover from stress. If you can meditate first thing in the morning, it's a great way to start the day. Visit **kp.org/listen** for podcasts, or try the basic minute meditation below.

1.  Sit down.

2.  Plant your feet on the floor.

3.  Sit up.

4.  Start a timer for one minute.

5.  Put your hands in a balanced position.

6.  Close your eyes.

7.  Focus on your breathing, moment by moment.

   (If you get distracted, don't worry, this is normal. Just think, "Hmm," and enjoy the next breath as if it were the first one.)

8.  When the timer sounds, stop.

9.  Open your eyes gradually.

ACTIVITY

MIND-BODY CONNECTION

Situation: Boss asked how my project is going and seemed unhappy.

How your body reacts. ⟷ *What you may be thinking.*

PHYSICAL SYMPTOMS	THOUGHTS
Tense neck Tense shoulders Pounding headache	Oh no! I have too much work to do today! She gives more work to me than everyone else. It's not fair!

How you may act or react. | *How you may be feeling.*

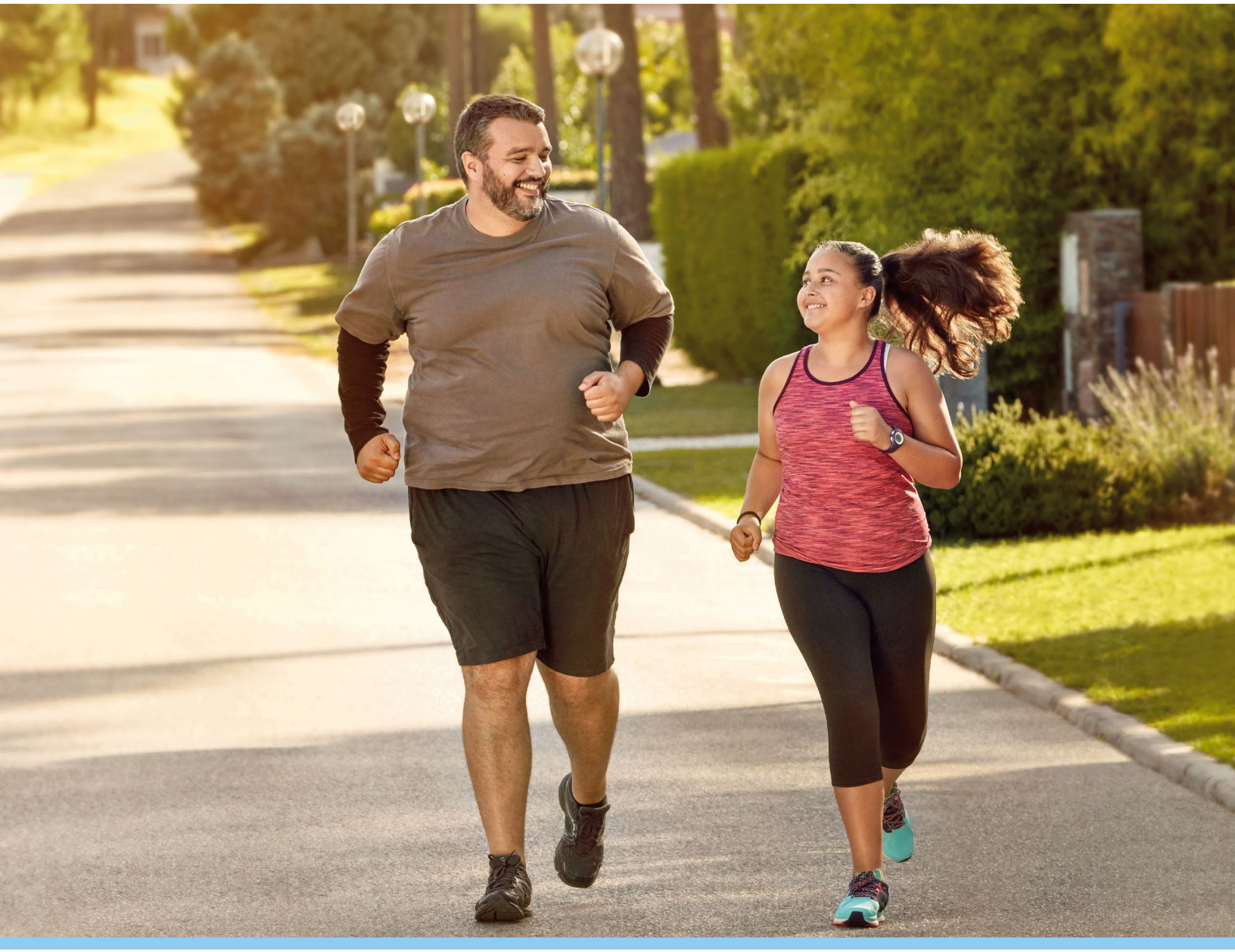
BEHAVIORS	FEELINGS
Snap at coworker Snack on chips and cookies	Anger Frustration Anxiety

Discuss a situation when you felt stressed this week.

- **What were your thoughts?**
- **How did you feel?**
- **What did you do about it?**
- **What would you do differently in the future?**

Getting **active**

Discover the countless benefits of physical activity that can help you control your blood sugar and feel your best every day.



Get active, feel calm

Did you know that exercise can create a pattern of calm in your brain? It can take the stress response and turn it into something helpful.

Benefits of physical activity

Gives you energy

Reduces stress

Improves sleep

Builds and tones muscles

Helps your body release and use insulin better

Lowers blood sugar, cholesterol, and blood pressure

Makes your heart and bones strong

Helps you lose weight or maintain a healthy weight

ACTIVITY

YOUR REASONS WHY

Physical activity can give you the conditioning you need to bounce back from stress. It's the ultimate resilience builder!

Write down 3 good reasons to stay active.

1.

2.

3.

What is your most important reason to be active?

What are your barriers to being active?

What can you control?

What can you not control?

Sneaking in activity

If you're just starting out or want to get back into the habit of being physically active on a regular basis, try sneaking in more steps this week. Here are a few ways you can begin:

Do you drive to run errands? ▸ Park in the farthest spot of the parking lot or walk around the mall!

Do you drive to work? ▸ Walk during your coffee or lunch break!

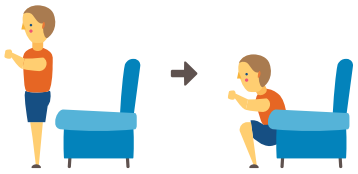
Do you sit at work? ▸ Set a timer on your watch or phone and stretch, stand, or walk in place at your desk every 30 minutes!

ACTIVITY

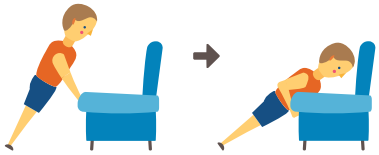
SOFASIZE

Is your favorite show on tonight? **Get moving** during commercials! Try these quick and easy "sofasize" moves right from your couch:

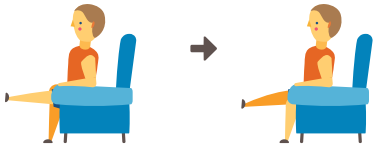
Squats



Press ups

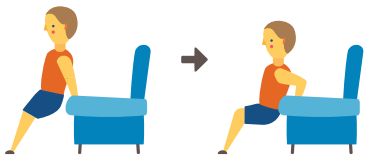


Air bike crunches

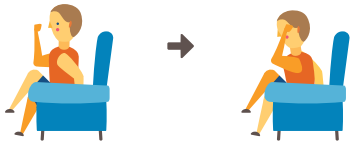


Sofa climbers

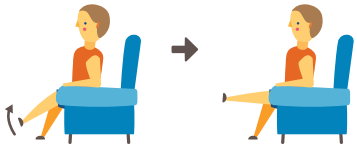
Tricep dips



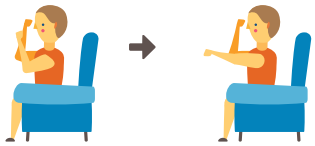
Knee to elbows



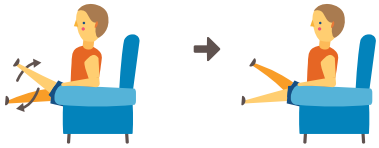
Leg swings



Punches



Scissors



GETTING ACTIVE

Ready to increase your level of physical activity but not sure how to do it? Start here.

STEP 1. Choose something fun you like to do

This could be salsa dancing, walking your dog, swimming, golfing, Zumba, or participating in a diabetes walk, run, or bike event to raise awareness and meet others with diabetes (for example, the American Diabetes Association Tour de Cure).

Instead of starting with what you think you "should" do, start with what feels **good.** Choose something that makes you breathe harder and your heart beat faster. If you want to be in an even better mood, take it outside! Nature is a great mood booster.

STEP 2. Make a plan for your activity

- **What** are you going to do?
- **How many** times are you going to do it?
- **When** are you going to do it?
- **How often** are you going to do it?
- **Who** will you talk to if you need encouragement?

STEP 3. Build it up!

Start with 5 to 10 minutes of moderate activity (like brisk walking) a day and work your way up to 150 minutes a week. You can get the same benefit by doing vigorous activity (like running) 75 minutes a week. Add in strength training with hand weights (you can use cans of soup or bags of rice at home, too), stretch bands, yoga, heavy gardening (digging and planting with tools), or push-ups/sit-ups 2 to 3 days a week. Don't forget to stretch!

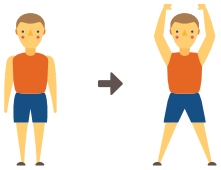
STEP 4. Hydrate, hydrate, hydrate

Drink plenty of water and avoid alcohol to keep your blood sugar levels normal.

THE 7-MINUTE WORKOUT

Try working all parts of your body with the 7-minute workout. You only need your body weight, a chair, and a wall! Do the exercises one after the other, allowing 30 seconds for each one with 10 seconds in between (choose the low-impact version if that's best for you).

#1 Jumping jacks

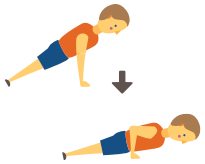


Low-impact version:
Instead of jumping out, just step out or try jumping jacks in a seated position.

#2 Wall sit

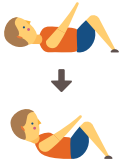
Low-impact version:
If you can't do this version of a modified squat, skip it.

#3 Push-up



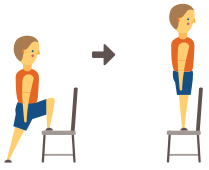
Low-impact version:
Try doing push-ups on your knees, off a wall, or off a high countertop.

#4 Abdominal crunch



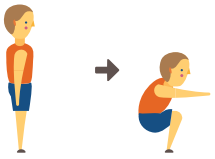
Low-impact version:
Try doing crunches in a standing or seated position.

#5 Step-up onto chair



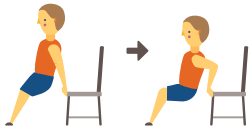
Low-impact version:
Try using a shorter surface like a curb or step, or try doing standing knee bends to work the hamstrings.

#6 Squat



Low-impact version:
Try standing up and sitting down on a chair, using armrests if needed.

#7 Triceps dips on chair

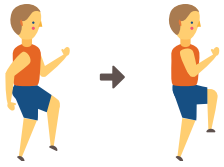


Low-impact version:
Try working your triceps in a different angle, such as overhead (with or without weights).

#8 Plank

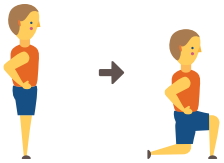
Low-impact version:
Try a plank on your knees, and try adjusting the angle to increase or decrease intensity.

#9 High knees running in place



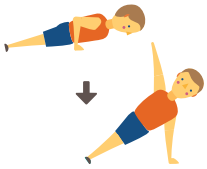
Low-impact version:
Try stepping in place instead of running.

#10 Lunge



Low-impact version:
Try using a sturdy chair, table, or countertop to hold onto while doing a lunge.

#11 Push-up and rotation



Low-impact version:
Try a push-up side bend on your knees.

#12 Side plank

Low-impact version:
Try a side plank on your knees.

GET LOW (IMPACT)

Looking for more low-impact activities to give your joints a break? Try these:

- Walking
- Stationary biking
- Elliptical machine
- Swimming
- Boxing (noncontact)
- Water aerobics
- Rowing machine
- Kayaking
- Yoga
- Hiking
- Tai chi
- Golf
- Ballroom dancing

Be active, be safe!

Talk to your doctor before you get moving. Ask:

- "What physical activities are safe for me?"
- "Are there special things I need to do to protect my feet?"
- "Do I need to make changes in my medicine before I get more physically active?"

Get active in a place that is familiar and safe for you. If you don't feel safe exercising outside, walk around a mall, use the stairs at work, or use a workout DVD or app at home.

Carry your meter and a snack with you in case your blood sugar is too low.

Check your blood sugar before physical activity.

Wear shoes that fit well and are made for the activity you do. Check your feet daily.

Carry an ID that says you have diabetes.

Remember: Every decision counts and every choice adds up. One bad decision doesn't ruin a day. One day off doesn't ruin a week. One week off doesn't ruin a month. Every single decision you make can take you closer or further away from your ultimate goal.

Aim to be moderately active (brisk walking) for 150 minutes a week, or vigorously active (running) for 75 minutes a week for the most benefit.

Preventing **burnout**

Changing how you look at diabetes can help you stay motivated to care for yourself without expecting to be perfect.

Changing your perspective

If you feel tired of managing your diabetes every day and stop taking care of yourself, you may be experiencing diabetes burnout. Remember, perfection is not the goal. Little changes over time can add up to taking care of your diabetes with many positive results.

FREQUENTLY ASKED QUESTIONS

"How do I fit diabetes care into my busy lifestyle?"

Eating healthy, being active, checking your blood sugar, and taking medication are all important parts of taking care of your diabetes. However, if your to-do list is overwhelming and a wave of stress hits, remind yourself that you do not have to be perfect and you are doing your best. Seek out support from others who have gone through this before for strategies you can make your own.

My +

Do you cook mostly healthy meals at home? That's a plus! Do you do some physical activity every week? That's a plus! Don't smoke? Another plus! Make a list of 5 things that you have going for you and share it with someone.

Put this list somewhere you can see it next time you start to think "diabetes is the worst thing that's happened to me." It will help you shift into a positive state of mind. Look at what you **have** and what you **can** do!

6 tips for preventing diabetes burnout

- Learn **the signs.** How do you know you're burned out? Your blood sugar numbers may be too high, you may not care about the things you used to, or you may start eating not-so-healthy foods.
- Identify **triggers.** When you have a lot going on in other areas of your life, take a step back and ask yourself what is causing your stress.
- Lean **on others.** Try the American Diabetes Association's message boards to get support from others who are also dealing with diabetes. Visit **diabetes.org/messageboards**.
- Work **with your team.** Kaiser Permanente has a team of people to support you: doctors, nurses, dietitians, social workers, health coaches, and diabetes educators who can help you find ways to get back on track.
- Nurture **yourself.** Create some "me" time to do something you love and mark it on your calendar. Make it as important as a doctor's appointment or a meeting with your boss.
- Get **support.** Let others know how they can support your new healthy lifestyle by encouraging, not criticizing. Setting healthy boundaries is important.

MY +

I have these 5 things going for me:

1.

2.

3.

4.

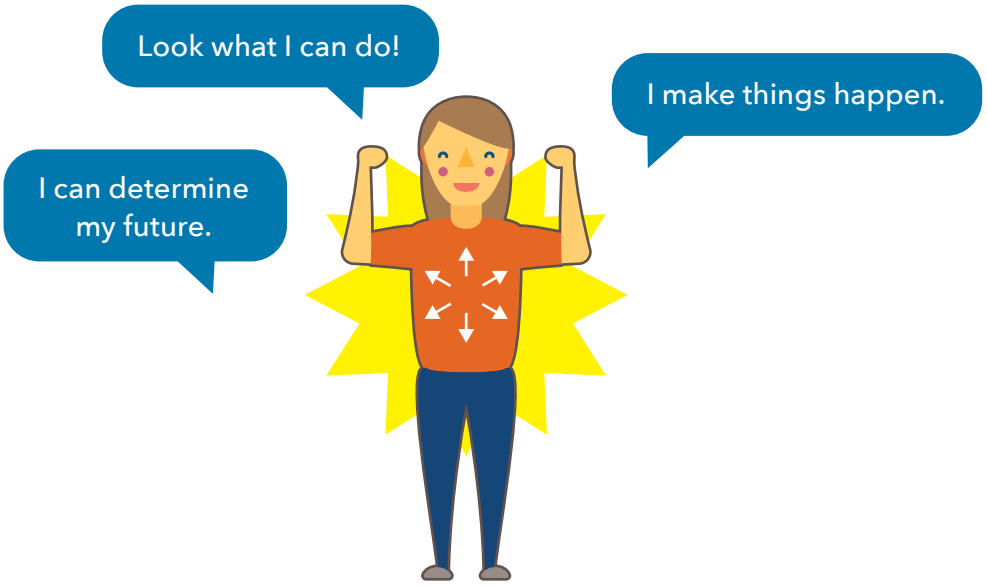
5.

Where is your place of control?

Finding out you have diabetes can be a shock. You may feel a loss of control over your life and think, "There's nothing I can do about my future." You may not always get to decide what happens to you, but you do get to decide how you deal with it.

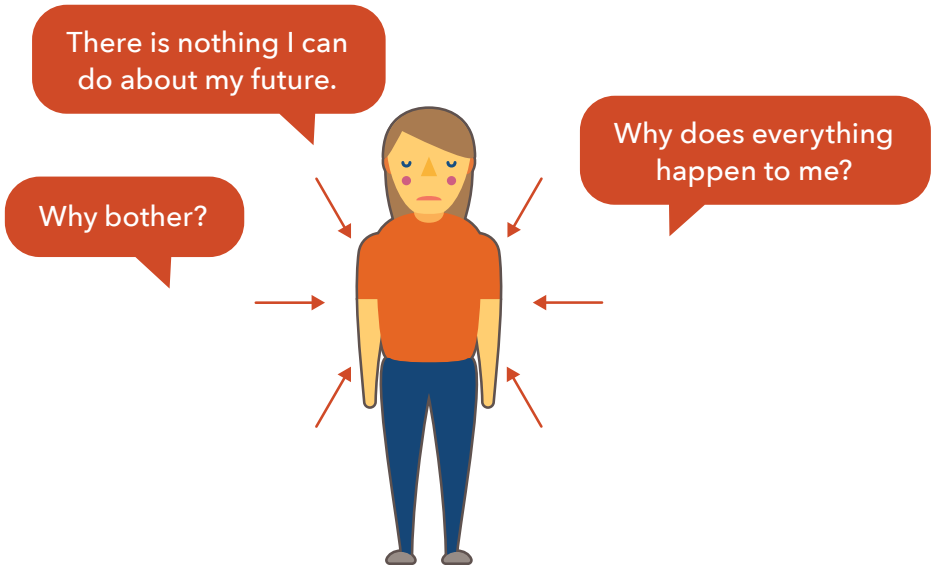
INTERNAL PLACE OF CONTROL

You **make** things happen.



EXTERNAL PLACE OF CONTROL

Things happen **to** you.



ACTIVITY

TAKING BACK CONTROL

Here are some statements that reflect an "internal place of control." This is someone who is making things happen rather than letting things happen to them.

Check off which of these are true for you:

- ○ I look for information about how I can avoid complications.
- ○ I am seeking knowledge about how I can best live with diabetes.
- ○ At appointments with my doctor, I bring questions I want the answers to.
- ○ I try to come up with a strategy about what to do.
- ○ I make a plan of action.
- ○ I think hard about what steps to take.
- ○ I think about how I might best handle the problem.
- ○ I talk to someone to find out more about the situation.
- ○ I ask people who have had similar experiences what they did.
- ○ I try to get emotional support from friends or relatives.
- ○ I get sympathy and understanding from someone.
- ○ I talk to someone about how I feel.
- ○ I discuss my feelings with someone.
- ○ I try to get advice from someone about what to do.

If none of these are true for you, try replacing the words "should" or "have to" with "choose to" when you think about doing something. For example, replace "I **should** go for a walk after dinner" with "I **choose to** go for a walk after dinner."

What are other examples you can think of?

Changing your perspective can help you avoid diabetes burnout by making things happen rather than letting things happen to you.

Mindfulness

Discover the power of being fully present and aware of where you are and what you're doing, and not overreacting to or overwhelmed by what's going on around you.

Be present

We've all had those moments: I'm here, but I'm not here. In a fast-paced world with technology that allows us to be present in so many moments, it can be easy to feel mentally overloaded. But if you begin to practice mindfulness and "tune in" to where you are right now, it can benefit you.

Benefits of living in the moment

- **You become more aware of your thoughts.** You can step back and not take them so literally. That way, your stress response is not started in the first place.
- **You don't immediately react to a situation.** Instead, you have a moment to pause and then come up with the best solution.
- **Mindfulness switches on your "being" mode of mind, which is linked with relaxation.** Your "doing" mode of mind is linked with action and the stress response.
- **You are more aware of and sensitive to the needs of your body.** You may notice pains earlier and take action.
- You are more **aware of the emotions of others** (emotional intelligence).
- Mindfulness reduces activity in the part of your brain that switches on your stress response, so **your background level of stress is reduced.**
- **You are better able to focus.** You are more likely to get into "the zone" or "flow," the state where you feel in command of what you do and perform at your best.
- **You can switch your attitude toward the stress.** Rather than just seeing the bad parts of feeling stressed, mindfulness gives you the space to think differently about the stress itself.

FREQUENTLY ASKED QUESTIONS

"Is mindfulness the same as meditation?"

Practicing mindfulness is actually a form of meditation! Meditation is the practice of reaching ultimate consciousness and concentration. Mindfulness is simply the act of focusing on being in the present, something you don't have to practice for 20 minutes at a time. You can be mindful anywhere, anytime.

TOPIC 5

Reducing **risks**

Benefits of **medication for diabetes**

Discover why medications can help you manage your diabetes.

Why take medications for diabetes?

Eating healthy and being active is the perfect starting point on your journey to controlling your diabetes. Like many people with diabetes, you may need to take medications for your diabetes and other conditions to stay healthy and prevent complications.

MEDICATIONS THAT KEEP YOU HEALTHY

- **Insulin:** a hormone that helps your body use or store the food you eat for energy

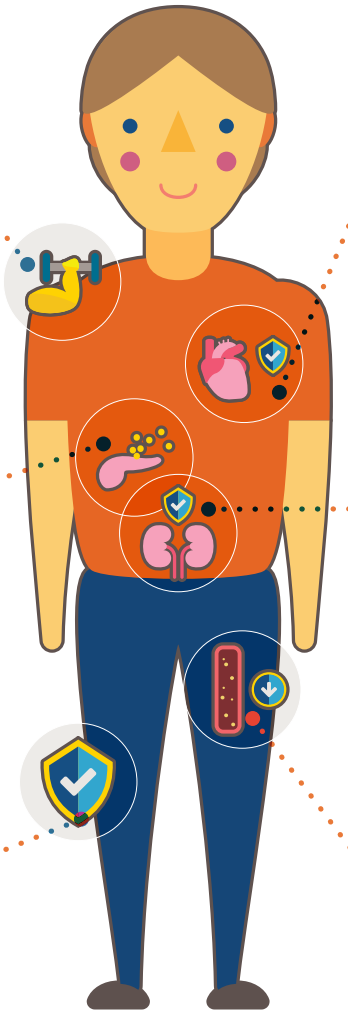
- **Aspirin:** lowers your risk of heart attack

- **Diabetes pills:** help your body release or use insulin better and keep your body from producing too much suga

- **ACE inhibitors:** lower blood pressure and protect kidneys

- **Vaccinations** (influenza, pneumonia, and hepatitis B): give your body the power to fight off disease

- **Statins:** lower cholesterol and reduce the risk of heart disease and stroke



Your medications can affect your body differently depending on when and how you take them. Talk with your doctor about the best time to take your medications. Pay attention to how you feel and how your body reacts to each new medication or treatment.

It's common to need medication for diabetes control so you can stay healthy.

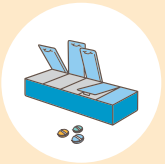
Medications that **treat diabetes**

Learn which medications can help you meet your target blood sugar goals and how to make a shared decision about your treatment with your doctor.

Make it a habit

Diabetes pills work best when you take them regularly. Make taking your medications a habit, like brushing your teeth. Ways to help you remember:

Set a timer on your smartphone or watch.



Use a pillbox.

Take medications before, with, or after meals.

Ask a family member to help remind you.

ORAL MEDICATIONS

There are several medications that can help you manage your diabetes. The medications on this page are the ones most commonly used at Kaiser Permanente. If you have questions about your medications, please speak to your doctor or pharmacist.

Biguanides: metformin

Main site of action: liver

How they work: decrease liver's glucose production and make cells more sensitive to insulin

Potential for low blood sugar: low

Sulfonylureas: glipizide, glimepiride, glyburide

Main site of action: pancreas

How they work: stimulate the pancreas to produce and release more insulin

Potential for low blood sugar: yes

Thiazolidinediones (TZDs): pioglitazone

Main site of action: muscle cell

How they work: make muscle cells more sensitive to insulin

Potential for low blood sugar: low

SGLT2 inhibitors: canagliflozin, empagliflozin, dapagliflozin, ertugliflozin

Main site of action: kidney

How they work: help move extra glucose in the blood to the urine

Potential for low blood sugar: low

- **Metformin:** Usually taken twice a day, with breakfast and dinner. It can cause stomach problems like gas and diarrhea, so taking with food can help. It's also available as an extended release formulation. This medication will not be prescribed for people with kidney disease.
- **Glipizide:** Usually taken twice a day **15-30 minutes before breakfast and before dinner.** Glipizide stimulates your pancreas to produce more insulin. By taking it before you eat, you will have insulin in your blood stream before the glucose from your food gets there. If you take Glipizide without eating, you have an increased risk for low blood sugar.
- **Thiazolidinediones (TZDs):** Taken once or twice daily with or without food. TZDs help insulin work better in the muscle and fat. TZDs may cause or worsen congestive heart failure. There's an increased risk of arm and leg bone fractures in women.
- **SGLT2 inhibitors:** Taken once daily, usually in the morning. SGLT2 inhibitors help the kidneys flush some glucose from the blood into the urine. Side effects include low blood pressure, increased urine output, genital yeast and urinary tract infections, and ketoacidosis. People with severe kidney disease should not take this medication.

When life gives
you lemons,
make sugar-free
lemonade.

SHARING THE DECISION

We want to partner with you to get excellent control of your diabetes. Diabetes can cause complications that can be prevented with good control. Through **shared decision-making,** you and your doctor can weigh the pros and cons of treatment to help decide what's best for you. Think about these questions at your next appointment:

- Are there reasons that I might need medication to treat diabetes?
- Are there reasons that I might not want to take medication?
- When my doctor and I are thinking about starting or stopping a medicine, which treatment is best for me?

Once you have made a shared decision with your doctor, it is good to know the name of the medication, how/when to take your medication, what goals you hope to achieve while taking it, and the possible side effects.

My diabetes medications checklist

Get the answers you need to take your medications the best and safest way possible by following the checklist on the right. Bring it to every visit with your diabetes care team.

Know the name of your medication, how and when to take it, what goals you hope to achieve while taking it, and the possible side effects.

MY DIABETES MEDICATIONS CHECKLIST

- ○ **What is this medicine for?**
- ○ **How will it help me?**
- ○ **When and how often do I take it?**
- ○ **Should I take it with food or on an empty stomach?**
- ○ **What should I do if I forget to take it?**
- ○ **What side effects should I look for?**
- ○ **Does it contain anything I am allergic to?**
- ○ **How long do I need to take it?**
- ○ **How should this medicine be stored?**
- ○ **Do you have any written instructions I can have?**

The basics of insulin

Discover the importance of insulin and how it can keep you healthy.

FREQUENTLY ASKED QUESTIONS

"Is insulin medication different from what my body makes?"

Insulin medication and the insulin your body makes are similar. Your body needs insulin, whether you make it on your own or get it from an injection. It's not a foreign substance!

"What is the difference between using medications and using insulin?"

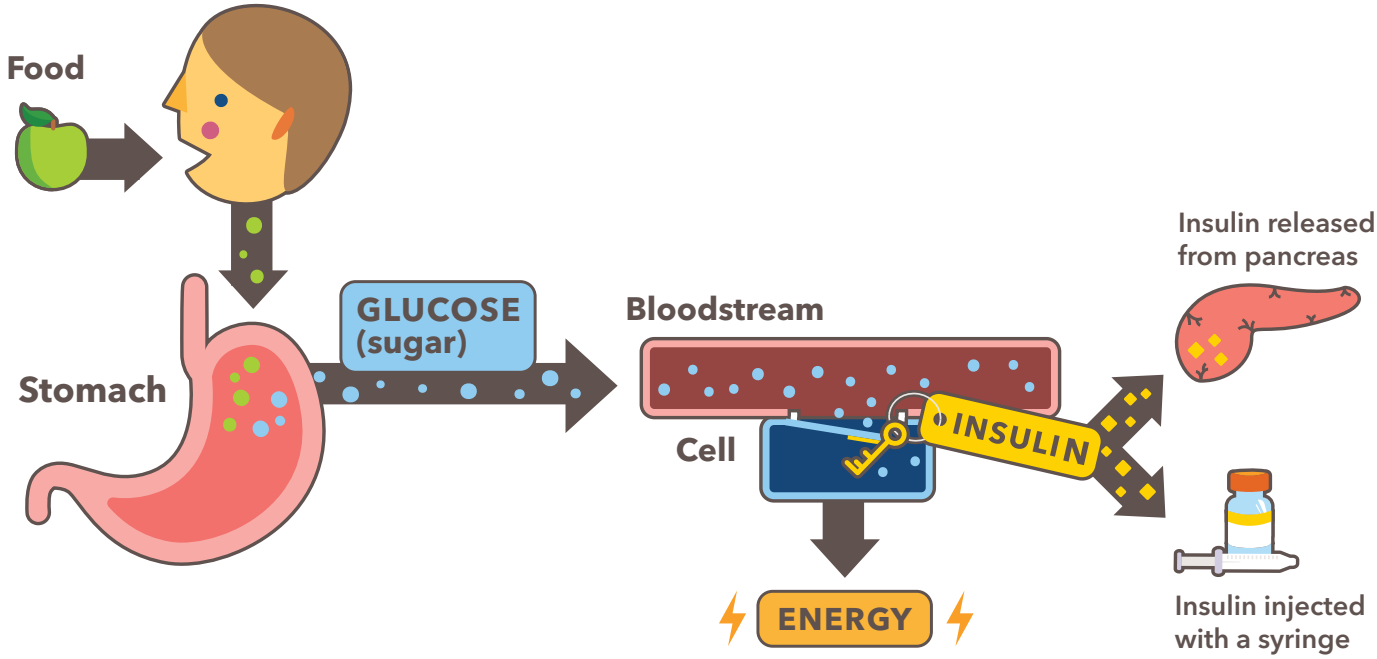
Over time, the pancreas may make less and less insulin. You may start out taking medications along with eating healthy and being active to keep your blood sugar normal. However, if your body doesn't have enough insulin, you may need to take insulin to keep your blood sugar normal.

WHAT YOU NEED TO KNOW

Eating healthy, being active, and taking diabetes pills are all important for controlling diabetes, but your needs can change over time. Insulin may be added to your plan for controlling your diabetes.

What is insulin?

Insulin is a hormone that allows your body to use sugar from the food that you eat for energy or to store for future use. Insulin helps keep your blood sugar level from getting too high or too low.



Why take insulin?

When your body can't make enough insulin, or you can't use the insulin your body makes, you'll need to inject insulin to make sure sugar gets into your cells to give you energy.

When should I take insulin?

You may need to inject one or more times a day. Your diabetes care team will work with you on the best plan for taking insulin. Insulin will lower your blood sugar whether or not you eat, so it is important to eat well-balanced meals and take insulin as prescribed around your meal times.

Other injectables

GLP-1 receptor agonists (Liraglutide, others): GLP-1s are injected once daily or once weekly. This hormone causes the pancreas to release insulin. It also slows digestion, may increase feeling of fullness, and decreases release of stored glucose from liver.

How to treat **low and high blood sugar**

Keeping blood sugar within healthy ranges is important with diabetes. Here's how to watch for and manage both low and high blood sugar levels.

LOW BLOOD SUGAR

Low blood sugar is also called hypoglycemia (hi-po-gly-see-mee-uh). It can happen if your body has too much insulin or not enough sugar, if you exercised too hard, or drank alcohol. Blood sugar **below 70 mg/dl** is low blood sugar. It can happen if you are taking insulin or certain diabetes pills. If you have low blood sugar, follow the steps under *What can you do?*

Causes: Too little food or skipped a meal; too much insulin or diabetes medication; more active than usual.

Onset: Often sudden. May pass out if untreated.

HIGH BLOOD SUGAR

High blood sugar, or hyperglycemia (hi-per-gly-see-mee-uh), can happen if your body does not have enough insulin or has too much sugar. Blood sugar **above 200 mg/dl** is too high. If you have high blood sugar, follow the steps under *What can you do?*

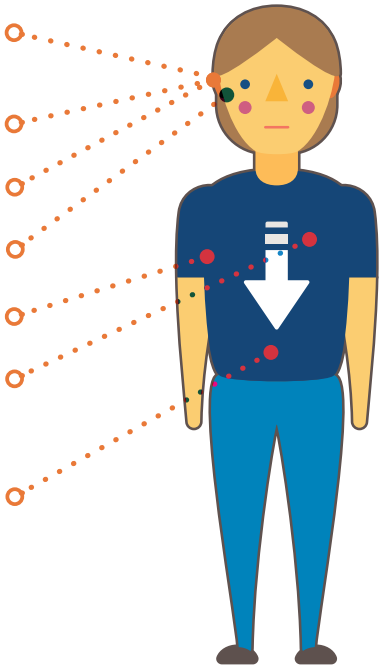
Causes: Too much food, too little insulin or diabetes medication, illness, inactivity, or stress.

Onset: Often starts slowly. May lead to a medical emergency if not treated.

Blood sugar below 70 mg/dl is too low.
Blood sugar above 200 mg/dl is too high.

Symptoms

- Weakness or fatigue
- Dizzy
- Headache
- Blurry vision
- Sweating
- Fast heartbeat
- Anxious
- Hungry
- Irritable
- Shaky



What can you do?

Check blood sugar. If below 70, follow the 15/15 rule to avoid serious problems:

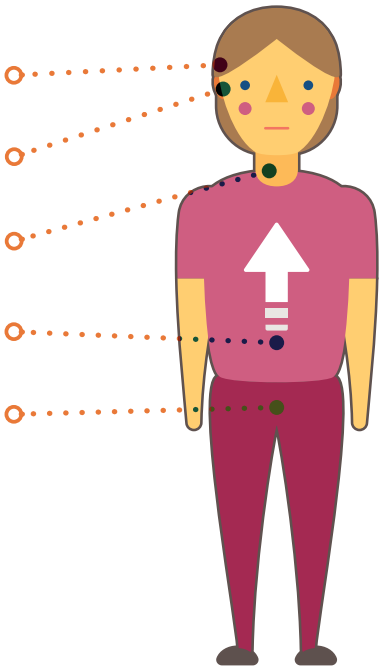
Eat 15 grams of carbohydrate (such as 3–4 glucose tablets or ½ cup juice).

Wait 15 minutes.

Check blood sugar. If still below 70, repeat. Once your blood sugar gets back above 70, follow up with a healthy snack.

Symptoms

- Drowsy
- Blurry vision
- Extreme thirst
- Hungry
- Need to urinate often
- Dry skin
- Slow-healing wounds



What can you do?

Check blood sugar every 4 hours.

Drink 1–2 cups of water, caffeine-free/calorie-free liquid, diet gelatin, or clear broth.

If your blood sugar is above 300 mg/dl for 8 hours, call your doctor.

Go to the Emergency Department if you are nauseous, vomiting, or have stomach pain.

Talk with your doctor about your diabetes medication and whether you need to make changes.

Call 911 for a blood sugar less than 70 that is not responding to treatment.

TAKING CARE OF YOURSELF **WHEN YOU'RE SICK**

You'll need to take special care of yourself when you're sick. These tips can help.

If you need help or have questions, call for advice day or night, 1-800-813-2000.

Check for changes

- Check your blood sugar at least every 4 hours.
- Weigh yourself every day. Losing weight without trying is a sign of high blood sugar.
- Check your temperature every morning and evening. A fever may be a sign of infection.
- Every 4 to 6 hours, check how you're breathing and decide how alert you feel. Having trouble breathing, feeling more sleepy than usual, or not thinking clearly can be danger signs.

Keep eating at regular times

Try to eat the same amount of carbohydrates as usual. Spread them out equally throughout the day. If you're having trouble eating regularly, eat enough soft foods or drink enough liquids to take the place of the carbs you usually eat.

Check the label of your medicine

If you are taking over-the-counter medications, such as cough medicine for a cold, ask the pharmacist about sugar-free medicines.

Keep taking diabetes medicine

Be sure to keep taking your diabetes pills or insulin. Don't stop taking them even if you can't eat. Your doctor may tell you to take more insulin when you're sick or stop taking metformin if you are dehydrated.

Keep records

- Use your blood glucose diary or glucose meter app to record your food, medication, and blood sugar levels. Ask a family member or friend to help if you need it.
- Make a telephone appointment with your doctor, call the advice line, or go to Urgent Care if needed.

Sick day reminder:
DRINK FLUIDS!

If you are **able** to eat:

- Follow your usual food and medication plan.
- Drink 1/2 to 3/4 cup of calorie-free liquid every hour (water, herbal tea, diet soda).

If you are **unable** to eat your usual meals **and** your blood glucose is in target range:

- Drink calorie-free liquids (water, herbal tea, diet soda) as tolerated.
- It's OK to drink some fluids with sugar (ginger ale, Gatorade, juice) or eat a popsicle.

Staying healthy with **regular care**

Take charge of your health on a regular basis and be prepared to get the most out of your medical visits.

KNOW YOUR NUMBERS

It's not just your blood sugar numbers that are important! Knowing your blood pressure and cholesterol numbers can give you the freedom to make choices without worry. You'll get confidence to learn from your actions, and motivation to keep up actions that are working.

ABCS of diabetes

A **is for the A1C ("A-One-C") test**

High blood sugar levels can harm your heart, blood vessels, kidneys, feet, and eyes. For most people, the A1C goal is less than 7%. Talk to your doctor about your goal, because it may be different.

B **is for blood pressure**

High blood pressure can cause a heart attack, stroke, and kidney disease. Aim for blood pressure below 140/90. Talk with your doctor about your goal, as it may be different.

C **is for cholesterol**

LDL ("bad") cholesterol can clog your blood vessels and cause a heart attack or stroke. Aim for LDL below 100 mg/dl. Talk to your doctor about your goal, as it may be different. You may be able to lower your risk of heart attack and stroke with cholesterol-lowering medication even if your actual cholesterol level is normal.

S **Stop smoking**

Increase your chances of quitting tobacco by calling a health coach at 503-286-6816 or 1-866-301-3866, option 2. Visit **kp.org/healthengagement** for more information.

Reducing your A1C by **just 1 point** can reduce your risk of heart attack, stroke, and diabetes-related complications.

TAKING CARE OF YOUR **HEART AND BRAIN**

People with diabetes are at greater risk for developing heart and blood vessel disease. They can be 2–4 times more likely to have a heart attack, stroke, or sudden death.

Keep your blood sugar controlled		Eat a variety of healthy foods, exercise regularly, take your medicines as prescribed, and check your blood sugar often to help keep levels in your target range.
Manage your blood pressure		Losing weight (if needed), exercising regularly, and reducing salt in your diet are some of the most effective ways to lower your blood pressure. Take medication if needed.
Quit tobacco		Tobacco and diabetes both narrow your blood vessels, making it important to quit.
Get regular checkups		Tell your care team about any changes in your health.
Make good food choices		Spread your carbs out throughout the day and make sure to get the right amount of protein, salt, and fluid. A registered dietitian can help you create a plan that's right for you.
Exercise regularly		Aim to get 150 minutes of moderate physical activity or 75 minutes of vigorous activity a week. Physical activity helps you control your blood sugar, stay at a healthy weight, and lower cholesterol and blood pressure.

Recognize the symptoms of heart attack: discomfort in your chest and upper body, shortness of breath, cold sweat, nausea, or lightheadedness. Act **FAST** if you see symptoms of a stroke:

- **F** ace drooping
- **A** rm weakness or numbness
- **S** peech difficulty
- **T** ime to call **9-1-1** for any of these symptoms (even if they go away)

TAKING CARE OF YOUR **NERVES**

Nerve damage can happen over time with diabetes, lowering your ability to feel pain. Complications can include:

- Hearing loss
- Digestion issues
- Urinary infections
- High blood pressure
- Damage to joints
- Eye issues
- Dizziness or feeling faint
- Not being able to feel heart attack symptoms

You can prevent these problems from happening by following these tips:

Keep your blood sugar controlled		Eat a variety of healthy foods, exercise regularly, take your medicines as prescribed, and check your blood sugar often to help keep levels in your target range.
Manage your blood pressure		Losing weight (if needed), exercising regularly, and reducing salt in your diet are some of the most effective ways to lower your blood pressure.
Quit tobacco		Tobacco and diabetes both narrow your blood vessels, making it important to quit.
Limit alcohol		If you need to, cut back gradually (2 drinks a day for men and 1 drink a day for women). See pages 35-36 for more information.
Take care of your feet		Check your feet for sores, cuts, and blisters, and clean them every day. Wear shoes that fit well.

Talk to your health care team if you have any health changes, including:

- Symptoms of an infection like pain, swelling, and redness; red streaks or pus draining from the area; or a fever
- New or worse numbness, pain, or tingling in any part of your body
- Problems with your feet like a new sore, cut, ingrown toenail, or bleeding

TAKING CARE OF YOUR **KIDNEYS**

Kidney disease happens to some people with diabetes. It means that your kidneys are not doing their job as well as they once did to remove waste from your body. Complications can include:

- High blood pressure
- Swelling in arms and legs
- Heart and blood vessel disease leading to stroke
- Damage to eyes
- Foot sores
- Sexual issues
- Damage to kidneys requiring transplant or dialysis

You can prevent these problems from happening by following these tips:

Keep your blood sugar controlled		Eat a variety of healthy foods, exercise regularly, take your medicines as prescribed, and check your blood sugar often to help keep levels in your target range.
Manage your blood pressure		Losing weight (if needed), exercising regularly, and reducing salt in your diet are some of the most effective ways to lower your blood pressure.
Quit tobacco		Tobacco and diabetes both narrow your blood vessels, making it important to quit.
Get regular checkups		Avoid complications by getting a microalbumin urine test once a year.
Make good food choices		Spread your carbs out throughout the day and make sure to get the right amount of protein, salt, and fluid. A registered dietitian can help you create a plan that's right for you.
Exercise regularly		Aim to get 150 minutes of moderate physical activity or 75 minutes of vigorous activity a week. Physical activity helps you control your blood sugar, stay at a healthy weight, and lower cholesterol and blood pressure.

Talk to your health care team if you have any health changes, including:

- New or worsening vomiting
- Less urine than normal, no urine, or blood in your urine
- New swelling

TAKING CARE OF YOUR **EYES**

High blood sugar can put pressure on your eyes and damage the tiny blood vessels, which can lead to retinopathy, cataracts, or glaucoma if it's not under control. You can prevent these problems from happening by following these tips:

Get a dilated eye exam or retinal screening photo		Get regular eye screenings. A screening may include a retinal exam and/or a retinal photo. Keep track of and tell your doctor about any changes in how you see.
Keep your blood sugar controlled		Eat a variety of healthy foods, exercise regularly, take your medicines as prescribed, and check your blood sugar often to help keep levels in your target range.
Manage your blood pressure		Losing weight (if needed), exercising regularly, and reducing salt in your diet are some of the most effective ways to lower your blood pressure.
Quit tobacco		Tobacco and diabetes both narrow your blood vessels, making it important to quit.

Talk to your health care team if you have any health changes, including:

- Seeing little black lines or spots that don't go away
- Seeing red spots or a red fog
- A sudden change in how clearly you see
- Taking longer than usual to adjust to darkness

GETTING QUALITY **SLEEP**

Poor quality sleep can make it harder to manage your blood sugar. Over time, not getting enough sleep can increase your risk for heart disease, diabetes complications, high blood pressure, stroke, and obesity.

To get a better night's sleep:

- Set up a regular bedtime routine.
- Be sure your room is cool and well-ventilated.
- Keep your bedroom dark and free from noise.
- Avoid large amounts of alcohol before bedtime.
- Talk to your doctor if you snore, gasp, or feel tired on most days.

People who sleep less than 6 hours per night have more diabetes complications.

TAKING CARE OF YOUR **FEET**

Diabetes can damage your nerves and slow blood flow to your feet, making it hard to know if you have a cut or sore (which can turn into something worse). You can prevent serious problems from happening by following these tips:

Check your feet every day		Look at your feet closely every day to check for blisters, sores, cracks, nail problems, redness, swelling, or any changes in color. If you get a callus, corn, bunion, or wart, see your doctor to have it removed.
Keep your feet clean and dry		Wash your feet every day with mild soap and water. Dry well, especially between your toes.
Moisturize		A thin coat of lotion on the tops and bottoms of your feet can help reduce cracks and injuries. Avoid lotion between your toes to reduce infection.
Trim your toenails		Trim your toenails straight across and use a nail file to smooth the corners.
Protect your feet with shoes and socks		Always wear good-fitting shoes with enclosed toes and inner cushioning. The best shoes are made of leather, cloth, or canvas. Always wear shoes with socks. The best socks are made with well-padded cotton or microfiber. Change socks daily. Avoid going barefoot, even inside.
Quit tobacco		Tobacco and diabetes both narrow your blood vessels, making it important to quit.
Limit alcohol		If you need to, cut back gradually (2 drinks a day for men and 1 drink a day for women). See pages 35-36 for more information.

Talk to your health care team if you have any of these changes to your feet:

- Color changes
- Temperature changes (hot or cold)
- Swelling
- Pain, tingling, burning, or numbness
- Ingrown toenails
- Calluses or corns
- Cracks or sores
- Smell or drainage (blood or pus)

TAKING CARE OF YOUR **TEETH AND GUMS**

Elevated blood sugars can put people with diabetes at increased risk for teeth and gum problems. You can prevent that from happening by following these tips:

Brush and floss your teeth regularly		Brush your teeth after each meal, or at least twice a day. Floss daily to remove plaque from your teeth. Change to a new toothbrush every 3 months.
Keep your blood sugar managed		Eat a variety of healthy foods, get regular physical activity, take your medications as prescribed, and check your blood sugar often to help keep levels in your target range.
Have your teeth cleaned and checked every 6 months		Remind the dentist that you have diabetes at and every visit.
Quit tobacco		Tobacco and diabetes both narrow your blood vessels. This limits the amount of oxygen an nutrients your body receives.

Talk to your health care team if you have any health changes, including:

- Sore, swollen red gums that bleed when you brush your teeth.
- Loose teeth
- Gums that shrink and pull away from the teeth
- Mouth rashes or sores
- Dry mouth

HAVING HEALTHY **SEXUAL FUNCTION**

A number of factors – physical and emotional – affect your sexual response and enjoyment. It is normal to feel embarrassed, angry, or upset. While diabetes can affect the sexual function of both men and women, it doesn't have to stop you from having a healthy sex life.

If you experience diabetes-related sexual difficulties, work with your health care team to address this. They can determine if it is due to poor blood glucose control, decreased blood flow, nerve damage, or other causes. Together, you can work with tools and treatments.

Living well with diabetes means taking care of yourself between your regular medical visits.

TAKING CARE OF YOURSELF WHEN YOU ARE **TRAVELING**

We want you to enjoy your life. For many people, enjoying life includes travel!

Before you leave:

- Check your supplies.
- Make sure all your immunizations are up to date.
- Have a list of your current medications.

Carry the medication list and all your supplies with you. Be sure to take more than enough for your entire trip.

Supplies:


Meter and checking supplies


Oral medications


Insulin (if needed) and syringes


Sharps container


Snacks and at least one meal


Fast-acting carbohydrate


Water

While you travel:

- Be sure to drink plenty of water. Travel is dehydrating.
- Try to move every 2 hours to prevent blood clots.

Call the Kaiser Permanente Away From Home Travel Line at 951-268-3900 before you travel for more useful information.

Setting **priorities**

Making a plan to prioritize your diabetes care means taking good care of yourself so you can take good care of others.

Putting first things first

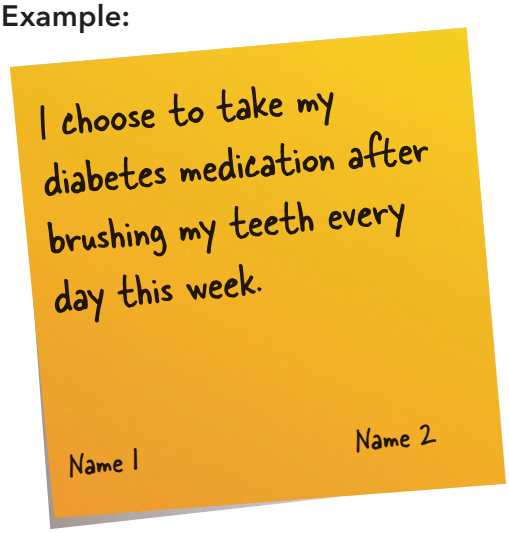
It may seem hard to put your diabetes care first before taking care of others, but think of it like being on an airplane. The flight attendant tells you to put on your own oxygen mask before helping others. The same goes for taking care of your diabetes.

Make it personal

Use a sticky note to write a small commitment toward a goal. This will be your "personal action plan." Use proactive words like "I choose to." Make it specific, realistic, and something you can do this week. Put it where you will see it every day.

Under your personal action plan, write the names of 2 people who can help you reach your goal – one from your health care team (doctor, educator, dietitian) and one from your social circle (partner, friend, child).

Example:



- **On a scale of 0 to 10, how important is it for you to change right now?**

0 1 2 3 4 5 6 7 8 9 10

Not at all important — Extremely important

- **On a scale of 0 to 10, how confident are you that you could make this change?**

0 1 2 3 4 5 6 7 8 9 10

Not at all confident — Extremely confident

You don't have to manage diabetes alone. Using a forum like **diabeties.org/community** is a great way to connect with others who can understand what you're going through. Remember to choose reliable online sources about diabetes. When in doubt, call your doctor.

TIPS I LEARNED TODAY/FROM OTHERS

ACTIVITY

MY GOAL IS:

Reason this goal is important to me:

MY ACTION PLAN

This week I will:

(*what*)	(*how much*)
	(*when*)
	(*how many*)

How **confident** are you that you will succeed with your plan?

0 1 2 3 4 5 6 7 8 9 10

0 = not at all confident

10 = totally confident

You are more likely to carry out your plan with a confidence of 7 or higher.

Things that could make it difficult to fulfill my action plan:

My plan for overcoming these challenges:

Support and resources I will need to fulfill my action plan:

My reward:

Review date:	**With:**

My signature:

Discuss your health goals and options for next steps with a health coach.
Call 503-286-6816 or 1-866-301-3866 and select option 2.


You can't stop the
waves, **but you can**
learn to surf.

APPENDIX

Resources

There are many resources that address physical activity, nutrition, stress management, and other topics that can help support you in managing your diabetes. In fact, there are far too many to list!

They include print materials, such as books and magazines, and electronic resources, such as CDs and DVDs. You can find many at your favorite bookstore or library.

There are also online resources. Websites, social media, and mobile apps are ways to learn, share ideas, and network with other users, and be entertained.

In addition to apps, there are devices you can use to monitor your health. They can help you track your blood sugar, food, activity, sleep, and more.

Group support or a class is another good option. In addition to diabetes management, you might benefit from one that focuses on exercise, weight management, depression, or a different wellness issue. A health coach can also help you explore different options.

Whatever offerings you explore, be sure to do some research to ensure the source or its sponsor is reputable. Before making a purchase, check user reviews and ratings.

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Food diary

Day of the week: Date:

Time	Type of food and beverage *(complete description including amounts)*

You may want to make additional copies of this page before you fill in the blanks.

Food diary

Day of the week: Date:

Time	Type of food and beverage *(complete description including amounts)*

You may want to make additional copies of this page before you fill in the blanks.

Visit schedule and health record

Use this record to help you organize and monitor your diabetes care.

At each visit	Date	Date	Date	Date	Date	Date	Date	Date
Discuss exercise and food plan								
Set treatment goals								
Undergo visual foot exam								
Check blood pressure								
Check weight								
Recommended yearly tests	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**
HbA1c (every 3 to 6 months)								
Urine microalbumin								
Potassium								
Creatinine								
Total cholesterol								
LDL cholesterol								
HDL cholesterol								
Triglycerides								
ALT (alanine aminotransferase)								
Retinal eye exam								
Complete dental exam								
LOPS foot exam								
Recommended immunizations	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**
Influenza (yearly)								
Tetanus (every 10 years)								
Pneumovax/Prevnar								

Tips

- Use this form to record health care visits and lab results.
- Share the information on this card with your doctor at each visit.
- Always wear medical-alert identification.

You may want to make additional copies of this page before you fill in the blanks.

Tests for diabetes

The following tests are recommended annually, or as indicated by your primary care doctor.

Name of test	Test results
HbA1c	Less than 5.7% . . . . . nondiabetic 5.7–6.4%. . . . . prediabetes 6.5% or higher . . . . . diabetes, if confirmed with a second HbA1c Potential for chronic complications: < 7.0%. . . . . low risk 7.0–7.9% . . . . . medium risk >7.9% . . . . . .high risk
Total cholesterol	< 200 mg/dl . . . . . optimal 200–239 mg/dl . . . . . borderline high > 239 mg/dl. . . . . high
HDL (good cholesterol)	Women: >49 mg/dl . . . . . optimal Men: >39 mg/dl . . . . . optimal
LDL (bad cholesterol)	< 100 mg/dl. . . . . optimal 100–129 mg/dl . . . . . .near optimal 130–159 mg/dl . . . . . borderline high 160–189 mg/dl . . . . . high > 189 mg/dl. . . . . .very high
Triglycerides (fats)	Fasting: < 150 mg/dl . . . . . .normal Nonfasting: <499 mg/dl . . . . . .normal
Creatinine (kidney test)	0.6–1.2 mg/dl . . . . . normal (female) 0.6–1.3 mg/dl . . . . . .normal (male)
Urine protein	Negative . . . . . .normal
Urine protein micro albumin screen	< 21 mg/L . . . . . .normal
Micro albumin/creatinine ratio	< 31 mg/L . . . . . .normal
Alanine aminotransferase (ALT)	10-58 U/L. . . . . .normal

Please note: > = greater than < = less than

Cultivating Health® Managing Diabetes

This book provides you with tools and information proven to be effective in helping people change their behaviors and better manage their diabetes.

With these materials, you can develop a program that will work for you – because you design it yourself!

You can build your program with interactive exercises and sample food diary, meal planning, action plan, and medical-visit forms.

You'll also find tips, tools, and strategies to help you determine where you are and where you want to be – and how to get there.

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