

Type 2 Diabetes

Take Control, Live Better

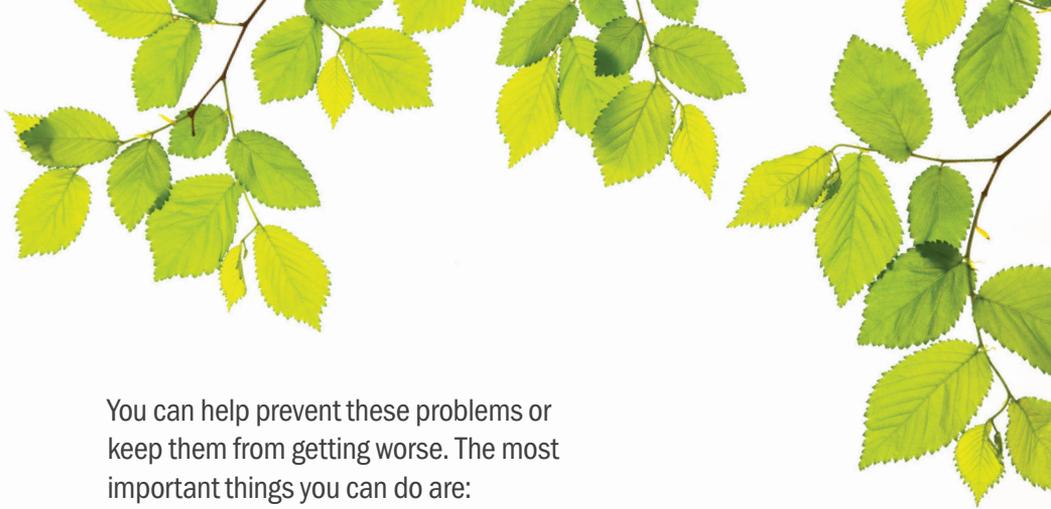


Type 2 diabetes

Whether you've been dealing with type 2 diabetes for years or have just found out that you have it, it's important to understand what happens and how to take care of yourself.

Having type 2 diabetes means that your body can't use a hormone called insulin properly. Insulin helps your body use sugar from your food as energy or store it for later use.





When your body can't use insulin properly, too much sugar stays in your blood. High blood sugar can lead to serious problems over time.

High blood sugar can:

- ▶ **Harm your eyes** (retinopathy), **kidneys** (nephropathy), **and nerves** (neuropathy)—especially in your feet.
- ▶ **Damage your blood vessels.** This can lead to heart disease, heart attack, and stroke.
- ▶ **Make it harder for wounds to heal.**
- ▶ **Make your immune system weak** and less able to fight infections.

You can help prevent these problems or keep them from getting worse. The most important things you can do are:

- ▶ **Take your diabetes medicines.**
- ▶ **Check your blood sugar** as often as your doctor recommends.
- ▶ **Eat healthy, balanced meals** and snacks.
- ▶ **Get some exercise** throughout the week.
- ▶ **See your doctor** for checkups and tests on a regular schedule.
- ▶ **Stay at a healthy weight.** Lose weight if you need to.
- ▶ **Keep your blood pressure and cholesterol under control.** Take medicines for this if your doctor has prescribed them.
- ▶ **If you smoke, quit.** This will reduce the risk of damage to your blood vessels.

Living with diabetes can be a struggle. Watching what you eat, checking your blood sugar, taking your medicine—there may be times when you just can't do it all. Don't be too hard on yourself.

Improving your blood sugar levels a little now can benefit your health in the years ahead. So take the next step to get back on track.

And if you're already doing what you need to, keep it up!

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Maybe you want to eat better, be more active, or lose weight. But it's not easy to change your habits. The key to success is being ready. And only you know when you're ready for a change.

To explore whether you're ready and learn about next steps, go to www.healthwise.net/patiented and enter **N047** into the search box.

Managing highs and lows

Even if you're careful and do all the right things, you can have problems with high or low blood sugar. It's important to know what signs to look for and what to do if this happens.

High blood sugar

High blood sugar (hyperglycemia) usually happens over a few days or weeks. Early symptoms may include:

- ▶ Feeling very thirsty.
- ▶ Urinating more often than usual.
- ▶ Feeling very hungry.
- ▶ Having blurred vision.

People with diabetes can get high blood sugar for many reasons. This can include not taking their diabetes medicines, eating more than usual (especially sweets), not exercising, or being sick or under a lot of stress.

If you have high blood sugar, follow your treatment plan for lowering it. This may mean taking missed doses of insulin or other diabetes medicine. Make sure to drink plenty of fluids so that you stay hydrated. Call your doctor if you don't know what to do.

Treating high blood sugar is important. Over time, high blood sugar can lead to serious problems or a medical emergency.

Low blood sugar

You can get low blood sugar (hypoglycemia) if you take insulin or diabetes medicines that help the body release insulin. Low blood sugar can happen suddenly.

Early symptoms of low blood sugar may include:

- ▶ Sweating.
- ▶ Feeling nervous, shaky, and weak.
- ▶ Feeling very hungry.
- ▶ Dizziness and headache.



You may also have these symptoms if you have a sudden big drop in blood sugar, even if the level doesn't drop below your target range. If you take insulin or other diabetes medicines and aren't able to tell when your blood sugar is too low, it's a good idea to test your blood sugar often.

If your blood sugar is low, eat a quick-sugar food. Wait 15 minutes, and then check your blood sugar. It's important to watch for and treat low blood sugar right away. If your blood sugar gets very low, you could pass out.

Be prepared for low blood sugar.

- ▶ **Keep some quick-sugar foods** with you at all times. The list on this page gives some good examples.
- ▶ **Wear medical identification**, such as a medical alert bracelet.
- ▶ **Teach others** how to check your blood sugar. Keep the instructions with your blood sugar meter. And teach others what to do if your blood sugar is very low.

Always keep some quick-sugar food with you.

Choose foods that contain about 15 grams of carbohydrate. For example:



3 or 4 **glucose tablets** (preferred)



1 tablespoon **white sugar** or 3 packets, dissolved in water



$\frac{3}{4}$ cup **fruit juice** or **regular** (not diet) **soda**



6 pieces **hard candy** such as Life Savers



1 tablespoon **honey** (don't give to children younger than 1 year old)

When to call a doctor

Call 911 if:

- ▶ You passed out (lost consciousness), or you suddenly become very sleepy or confused. These are symptoms of very low blood sugar.
- ▶ You have symptoms of very high blood sugar. These include blurred vision, trouble staying awake or waking up, fast breathing, breath that smells fruity, belly pain, lack of hunger, vomiting, and confusion.

Call a doctor if:

- ▶ You're sick and can't control your blood sugar.
- ▶ You've been vomiting or had diarrhea for more than 6 hours.
- ▶ Your blood sugar level stays higher or lower than the level your doctor has set for you for two or more readings.
- ▶ You have symptoms of low blood sugar.

Check with your doctor if:

- ▶ You often have problems with high or low blood sugar levels.
- ▶ You have trouble knowing when your blood sugar is low.



Checking your blood sugar

You have a better chance of keeping your blood sugar in your target range if you know what it is from day to day. Checking and keeping track of your blood sugar can really help you keep your diabetes under control.

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To do a good job of tracking your blood sugar, it helps to:

- ▶ Know how and when to check your blood sugar.
- ▶ Have the right supplies and know how to use them.
- ▶ Have an easy way to keep track of your results.

For help setting up a routine for checking your blood sugar, go to www.healthwise.net/patiented and enter **X985** into the search box.

- ▶ **Check how your blood sugar rises or falls** in response to certain foods, exercise, and other things. This can help you reduce symptoms and prevent blood sugar emergencies.
- ▶ **Keep a record of your blood sugar over time.** This can help you and your doctor know how well your treatment is working and whether you need to make any changes.

Talk with your doctor about whether (and if so, how often) you need to test your blood sugar. You can use the form on this page to remind you when to test and when to call your doctor about problems.

When to test my blood sugar

I need to test my blood sugar times a day.

The times to test each day are:

- | | | |
|---|--|-------------------------------------|
| <input type="checkbox"/> Before breakfast | <input type="checkbox"/> After breakfast | <input type="checkbox"/> At bedtime |
| <input type="checkbox"/> Before lunch | <input type="checkbox"/> After lunch | |
| <input type="checkbox"/> Before dinner | <input type="checkbox"/> After dinner | |

Other times: _____

When I'm ill, I need to test my blood sugar at these other times: _____

I need to call my health professional if my blood sugar is **below**:

I need to call my health professional if my blood sugar is **above**:

Other notes about blood sugar testing: _____

Medicines

Most people with type 2 diabetes need medicine to help their bodies make more insulin or use insulin properly. Medicine can help keep your blood sugar in your target range.

You may need to take one or more medicines. Some people need medicine for only a short time. Some take it for the rest of their lives.

What you need will depend on how well your blood sugar stays in your target range. Staying at a healthy weight, exercising, and eating healthy foods can sometimes bring blood sugar down and reduce the need for medicine.

People with type 1 diabetes have to take insulin throughout their lives to control their blood sugar. With type 2 diabetes, you may be able to avoid or delay the need for insulin with careful eating, regular exercise, and the right use of other diabetes medicines. Many people with type 2 diabetes do end up needing to take insulin at some point.

You may also need to take medicines to help control cholesterol, high blood pressure, or other problems.



Taking control of your medicines

Problem

Solutions

I can't keep my medicines straight.

Make a list of every medicine you take. Write down what each medicine is for. Keep the list up to date.

I get busy and forget to take my medicine on time.

Make a schedule of when you should take each of your medicines. Put it where you can easily see it every day—on the door of your medicine cabinet, for example. Take it when you travel.

Use alarms. Set a device to remind you when it's time to take your medicine.

I can't keep track of whether I've taken my medicine or not.

Use a pillbox. A pillbox can help you keep track of your pills. Some hold a week's worth, with separate compartments for morning, noon, evening, and bedtime.

Simplify. Ask your doctor if you can make your medicine schedule simpler. For example, maybe you could take one longer-acting pill every day instead of several shorter-acting ones.

The medicine costs too much.

Control costs. Compare prices between several drugstores, and consider a mail-order pharmacy. Check for coupons, and ask your doctor if there is a generic brand you can take to save money.

Healthy eating

Eating right helps keep your blood sugar in your target range. For some people, healthy eating and regular exercise are enough to keep their diabetes under control without medicines. If you take medicine, eating right can help the medicine work better.

Healthy eating doesn't have to be complicated.

- ▶ **Eat a balanced diet** that includes whole grains, lean protein, and vegetables.
- ▶ **Limit saturated fats.** Avoid trans fat.
- ▶ **Cut down on foods that are high in calories** and low in nutrition.
- ▶ **Limit sweets.**

Plan your meals

Meal planning for diabetes includes eating certain amounts and kinds of foods at regular meals and snacks. For example, you may have heard about counting carbohydrate grams.

It may seem hard to have to watch what you eat. But there's an easy way to get started: the **plate format**.

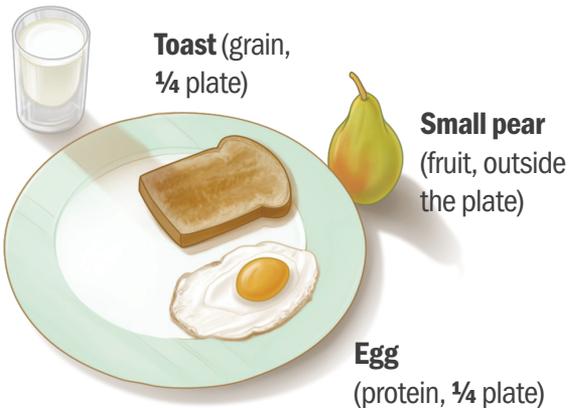
The plate format shows what a meal should look like and how much space each food should take up on your plate. This can help you eat balanced meals. It also can keep you from eating too much carbohydrate at once.

For example, a typical healthy plate for lunch or dinner will have:

- ▶ Bread, starchy foods, or grain on one-fourth of the plate.
- ▶ Meat or another form of protein (like beans or an egg) on one-fourth of the plate.
- ▶ Non-starchy vegetables on half the plate.
- ▶ 1 small piece of fruit outside the plate.
- ▶ 1 cup of low-fat or fat-free milk or yogurt or $\frac{1}{2}$ cup of no-sugar-added pudding or ice cream outside the plate.

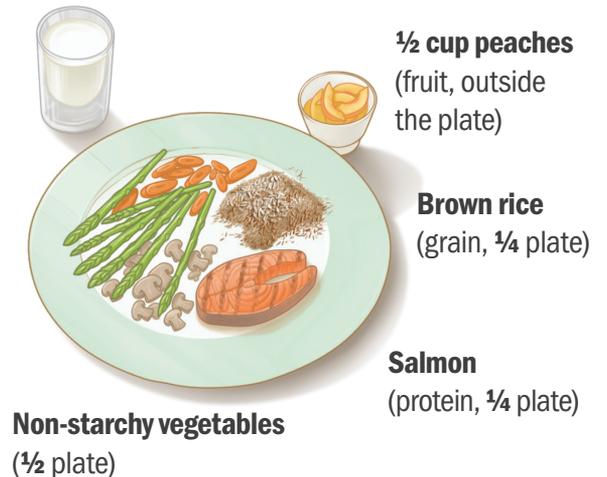
Sample plate for breakfast

8 oz milk (dairy, outside the plate)



Sample plate for dinner

8 oz milk (dairy, outside the plate)



What about carbohydrate?

Carbohydrate is an important nutrient you get from food. It's a great source of energy for your body and helps your brain and nervous system work their best.

But when you have type 2 diabetes, you have to be careful about how much carbohydrate you eat at one time. If you eat too much at once, your blood sugar will rise quickly.

Carbohydrate is found in:

- ▶ Sugar and sweets.
- ▶ Grains, such as bread, rice, and pasta.
- ▶ Fruit.
- ▶ Starchy vegetables, such as potatoes and corn.
- ▶ Dairy, such as milk and yogurt.

The goal is to keep your blood sugar steady and avoid high blood sugar after meals. You can help by spreading your carbohydrate throughout the day, rather than eating a lot at once. This will also keep you from getting too hungry.

Snack smart

Good snack choices are ones that are nutritious and help your blood sugar stay in your target range. Follow the signals your body sends that tell you when you are hungry or full.

Some snack ideas:

- ▶ **Make healthy choices.** Eat a piece of fresh fruit. Or combine fruit with protein, such as a small apple with a tablespoon of peanut butter or some fat-free yogurt.

- ▶ **Be prepared.** Keep cut-up raw vegetables in your refrigerator. You're more likely to grab them if they're ready to eat.
- ▶ **Choose foods that can fill you up** without a lot of calories. Try a hard-boiled egg, an ounce of reduced-fat cheese, or a handful of almonds or walnuts.
- ▶ **Skip high-fat dips.** Instead, mix plain yogurt, fat-free mayonnaise, or fat-free sour cream with a small amount of dry soup mix. Or try a low-fat bean dip topped with salsa.
- ▶ **Get more fiber.** Choose whole-grain breads, cereals, and crackers. Sprinkle wheat germ on yogurt or salads.
- ▶ **Try something new.** Make a pizza with whole wheat pita bread, tomato sauce, and reduced-fat cheese. Top with sliced veggies.

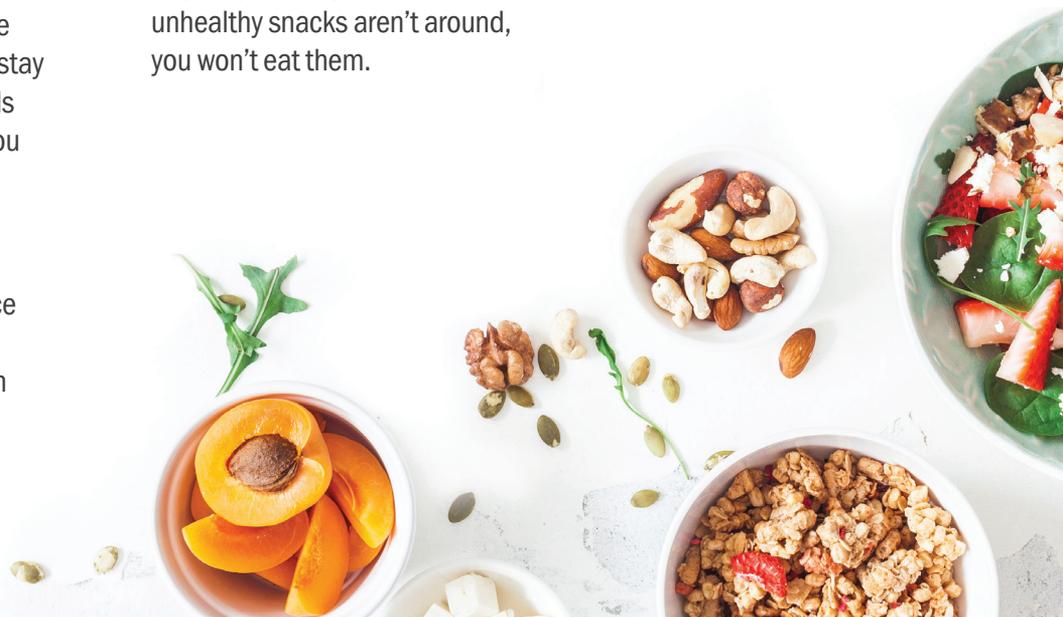
And remember:

- ▶ **Don't eat out of the bag or box.** Take a single serving, and eat from a plate or bowl. It's easy to eat more than you need or want when the bag is open in front of you.
- ▶ **Buy only healthy snacks.** If unhealthy snacks aren't around, you won't eat them.

Go to web

To learn how to use the plate format for your meals and snacks, go to www.healthwise.net/patiented and enter **W418** into the search box.

And when you're ready to learn more about meal planning, talk with a registered dietitian or diabetes educator about other methods.



Getting active

Exercise helps control your blood sugar. It also helps you stay at a healthy weight and helps lower high blood pressure. These benefits help prevent heart disease, the main cause of death in people who have diabetes.

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Not sure how to start being more active? For some ideas that might work for you, go to www.healthwise.net/patiented and enter **A939** or **P985** into the search box.

And you don't have to join a gym to get the activity you need. Even everyday activities can make a difference.

Try to get 2½ hours of exercise each week. For example, doing 30 minutes of exercise on most days of the week can help you reach this goal.

The important thing is to get some exercise on most days of the week.

Even a little exercise can help if you haven't been active at all.

Walking is a great, easy way to get exercise. If your doctor says it's safe, start out with some short walks, and then gradually make the walks a little longer. You might also try swimming, biking, or water aerobics.

If your doctor says it's okay, do muscle-strengthening exercises at least 2 times a week. Your doctor can help you make a plan. Use the form on the next page to record your goals and other details.

Be safe when you exercise

- ▶ **Check your blood sugar before and after exercise.** And be careful about what you eat, especially if you take insulin or other medicines.
- ▶ **Avoid blood sugar problems.** If you take insulin or medicine that lowers blood sugar, check your blood sugar before you exercise. If your blood sugar is less than 100 mg/dL, eat a carbohydrate snack first.
- ▶ **Be careful if your blood sugar is too high.** Ask your doctor what blood sugar range is safe when you exercise.
- ▶ **Try to exercise at about the same time each day** to keep your blood sugar steady. If you want to exercise more, slowly increase how hard or long you exercise.
- ▶ **Keep quick-sugar food handy.** You may get symptoms of low blood sugar during exercise or up to 24 hours later.
- ▶ **Use proper footwear** and the right equipment.
- ▶ **Pay attention to your body.** If you're used to exercise and notice that you can't do as much as usual, talk to your doctor.

Exercise planning form

Special tests I need before I begin an exercise program (if any):

Exercises to help with my chronic health conditions:

Should I change the time I take my medicines?

Exercises I should not do:

Should I take my pulse when I exercise? If so, what range (target heart rate) is best for me?

Warning signs I need to watch for:

In the beginning, my exercise program will be (what, how often, how long):

Short-term goals:
In the next few weeks I will:

1

2

3

Long-term goals:
In the next 6 months I will:

1

2

3

As you reach your short-term goals, add new ones.

Tests and screenings

Diabetes can damage many different parts of your body, but you may not have symptoms of the damage until it's too late to do much about it. Having tests on a regular schedule can help you avoid many of the problems caused by diabetes. Tests give you and your doctor a chance to find problems early, when they're easier to treat.

Typical schedule for exams and tests

Test	Why you need it	How often to get it
Hemoglobin A1c blood test	Checks average blood sugar over past 2 or 3 months. (This can help your doctor see how well treatment is working.)	Every 3 to 6 months
Blood pressure test	High blood pressure increases risk of heart disease, stroke, and eye and kidney damage.	Every 3 to 6 months
Foot exam	Reduced feeling in feet can be a sign of nerve damage.	At least every year
Dilated eye exam	Diabetes can damage vision.	Every year (may be more or less often depending on the results)
Cholesterol test	Cholesterol problems put you at risk for heart disease. Untreated diabetes also can affect cholesterol.	Talk to your doctor.
Urine test for protein	Protein in urine may be the only sign of early kidney damage.	Every year
Dental exam and cleaning	Diabetes increases risk of gum problems and infection.	Every 6 months
Vaccinations (flu, pneumococcal, hepatitis B)	Avoiding flu and other problems can help you stay healthy and manage your diabetes.	Get a flu shot every year. Talk to your doctor about when to get other vaccinations.

Caring for your feet

When you have diabetes, your feet need extra care and attention. Diabetes can damage the nerve endings and blood vessels in your feet, making you less likely to notice when they're injured.

Diabetes also makes it harder for your body to fight infection. So a minor injury could turn into an ulcer or a serious infection.

With good foot care, you can prevent most of these problems.

To help keep your feet healthy:

- ▶ **Examine your feet every day.** If you can't see well, have someone help you.
- ▶ **Wear shoes and socks that fit well** to protect your feet from injury.

- ▶ **Check your shoes for any loose objects** or rough edges before you put them on.
- ▶ **Ask your doctor to check your feet during each visit.** Your doctor may notice a foot problem you've missed.
- ▶ **Get early treatment for any foot problem,** even a minor one. Don't try to treat a foot problem on your own. Home remedies or treatments you can buy without a prescription (such as corn removers) can be harmful.

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Minor foot problems can become big ones if you don't notice and take care of them.

To learn how to take good care of your feet, go to www.healthwise.net/patiented and enter **C720** into the search box.



Coping and support



Trying to manage diabetes isn't easy. Some days it may feel like too much work to do everything you need to do. There may be times when you just don't feel like testing and tracking your blood sugar.

It's normal to sometimes feel sad or angry when you have a health problem. Even if you've had diabetes for a while, you may still have trouble adjusting. It may be hard to stay motivated.

When you feel sad, give yourself time to grieve. If you feel overwhelmed, focus on one day at a time. Do the best you can. You don't have to be perfect.

Get support

If you're having trouble coping with your feelings, try talking with a counselor. You may be able to say things that you wouldn't share with family or friends.

It might also help to:

- ▶ **Talk to your doctor.** This is especially important if you have symptoms of depression, such as a lack of interest in things you used to enjoy, low energy, or trouble sleeping.
- ▶ **Talk with friends and family** about how you feel and any help you need.
- ▶ **Join a support group.** You can find one through your doctor, your local hospital, or the American Diabetes Association.

Gloria's story

About a year ago while doing some work for her husband's tax business, Gloria had trouble reading the numbers on the checks she was filing.

"My vision was blurry. It was really scary," Gloria says. "My doctor tested me for diabetes. He said that the blurriness meant my blood sugar was too high."

Gloria started taking pills to help lower her blood sugar. And she took a diabetes education class where she learned how diet and activity can help her manage her blood sugar.

"I got motivated to take care of myself. I don't want anything to happen to my eyes," she says.

She expected quick results, but it took time to get her blood sugar in her target range.

"It took me about 6 months to get into my range. And I was doing everything right. So my advice is, keep trying and be patient."

When Gloria was first diagnosed, she started taking short walks after she ate lunch. These days she and her husband take a 30-minute walk after dinner almost every evening.

"Exercise changed everything—the way I feel, my blood sugar, everything," she says. "I'm 70 years old, and I've never felt stronger or healthier in my life."

This story is based on information gathered from many people living with type 2 diabetes.



When you have diabetes, it's important to plan ahead for what to do if your symptoms get worse. Work with your doctor to make a plan.

Symptom action plan

Name:

Doctor's name:

.....
Doctor's phone number:

.....
Other emergency contact numbers:

.....
Next doctor visit date:

.....
Questions for my doctor:

.....
When should I call my doctor:

.....
Call 911 if:

.....
List of my medicines:

.....
When to take my medicines:

.....
What do I do if my symptoms get worse?

.....
What do I need to check or keep track of? (such as blood sugar or weight)

.....
Do I need to change my diet or activities? If so, what changes do I need to make?

