

Diabetes

Taking charge of your diabetes

What is diabetes?

Diabetes occurs when a person's body doesn't make enough *insulin* or doesn't use insulin the right way. Insulin helps your cells use blood sugar for energy. Diabetes causes the sugar to build up in your blood.

What health problems can diabetes cause?

Over time, high blood sugar levels can damage your eyes, blood vessels, nerves and kidneys. Damage to your nerves can lead to foot sores, problems with digestion and impotence. Damage to your blood vessels increases your risk of heart attack and stroke.

Besides the long-term health risks of high blood sugar levels, diabetes can also cause episodes of *hypoglycemia*, *hyperglycemia* and *ketoacidosis*.

Hypoglycemia occurs when your blood sugar falls too low—when you have too much insulin in your blood or haven't eaten enough.

Hyperglycemia occurs when your blood sugar level is too high—when you don't have enough insulin in your blood.

Ketoacidosis occurs when you don't have enough insulin in your blood and your body starts breaking down fats for energy instead of using blood sugar. This process leaves behind wastes called *ketones*. Ketoacidosis can be life-threatening.

Call your doctor if

- You start feeling very thirsty and are urinating more.
- You feel sick to your stomach or vomit more than once.
- You start breathing deeper and faster.
- Your breath smells sweet.
- You start to tremble, feel weak and drowsy, and then feel confused or dizzy, or start seeing double.
- You feel uncoordinated.

How can I help myself stay healthy if I have diabetes?

One of the best ways to reduce how much damage diabetes does to your body is to control your blood sugar level. You can do this by eating right, by exercising and by taking your insulin or medicine the right way.

Regularly checking your blood sugar is a key to helping you control it. Blood sugar checks can help you see how eating raises your blood sugar level, how exercising can help lower your level and how your insulin or medicine affects your level. Checking your blood sugar also allows you and your doctor to change your treatment plan if needed.

How does food affect my blood sugar level?

Anytime you eat, you put sugar in your blood. Eating the right way can help control your blood sugar level. What you eat can also affect your overall health. Everyone has different health concerns that affect the way they should eat. For example, some people must watch their cholesterol levels very closely and so will need to watch how much fat and cholesterol they eat. Other people may need to lose weight and so must limit the overall calories in their diets.

It's important for you to learn how what you eat affects your blood sugar level, how you feel and your overall health. As a general rule, just following a healthy diet is wise. Your doctor may help you find a dietitian who can help you learn how what you eat affects you. See the box below for some tips on eating right.

Simple guidelines on what to eat and drink

- Eat at about the same time every day. This helps keep your insulin or medicine and sugar levels steady.
- Try to eat three times a day. Have a snack at bedtime if you're taking medicine or insulin. Avoid other snacking unless you're exercising or treating hypoglycemia.
- If you're overweight, losing just a little weight, such as 5 to 15 pounds, can lower your blood sugar and cholesterol levels.
- Eat plenty of fiber. Green leafy vegetables, grains and fruits are good choices. Fiber helps you feel full and also helps lower cholesterol levels.
- Eat fewer "empty" calories. Foods high in sugar, fat and alcohol are examples.

What about alcohol?

It's probably okay to drink some alcohol. But it's best not to have more than about one serving a day with a meal. A serving is 4 oz of wine, 12 oz of beer or 1.5 oz of hard liquor. If you drink on an empty stomach, you risk causing a drop in your blood sugar.

Will exercising really help my blood sugar level?

Yes. Exercising is especially good for people who have diabetes because it can help the body better use the insulin it has, resulting in a lower blood sugar level.

Exercise is also good for your heart, your cholesterol levels, your blood pressure and your weight—all factors that can affect your risk of heart attack and stroke.

Exercise also seems to make people feel better about themselves and feel less anxious. Talk with your doctor if you're interested in starting an exercise program. He or she can help you make a plan.

How do I check my blood sugar level?

To check your blood sugar level, you'll need to prick your finger to get one drop of blood for the test. Spring-loaded devices, which prick your finger when you press them against your skin, make this simple and less painful.

After you prick your finger, you place a drop of your blood onto a test strip. The test strip will change colors. The color shows how much sugar is in your blood.

You then either insert the strip into a blood sugar meter or you figure out your blood sugar level yourself by comparing the color of the strip with a color chart. Don't try the chart method if you're color blind or have poor eyesight.

Tips on blood sugar testing

- Wash your hands and dry them well before doing the test.
- Pay attention to expiration dates for test strips.
- Use a big enough drop of blood.
- Be sure your meter is set right.
- Keep your meter clean.
- Check the batteries of your meter.
- Follow the instructions for the test carefully. Be aware of the amount of time you should wait between steps.
- Write down the results and show them to your doctor.

How often should I check my blood sugar?

Check your blood sugar as often as your doctor suggests. You'll probably need to do it more often at first, and during times when you feel sick or stressed, during times when you're changing your medicine dose, or if you're pregnant. If you're taking insulin, you may need to check your levels more often than if you're not taking insulin.

What should my blood sugar level be?

Talk with your doctor about what range of blood sugar levels is best for you. A level of 115 to 140 before meals is often a good goal, but not everyone with diabetes can get their blood sugar levels this low.

Keep track of your blood sugar levels by writing them down. You can also keep track of what you've eaten and how active you've been during the day. This will help you see how eating and exercise affect your blood sugar. Be sure to talk with your doctor about what to do if your tests show that your blood sugar isn't within the range that's best for you.

What is a glycosylated hemoglobin test?

It's a blood test your doctor may do. One common type of glycosylated hemoglobin is hemoglobin A_{1c}. The hemoglobin A_{1c} level helps show how well your blood sugar has been controlled during the previous six to eight weeks. It helps your doctor work with you to see how effective your treatment is and to help decide what changes may need to be made.

Do urine tests for blood sugar work?

Urine tests for sugar aren't as accurate as blood tests. Your doctor may suggest you use urine tests if you have a problem with your veins that makes blood tests too hard to do.

Special urine tests can also be used to test for ketones in your urine, which can be a sign of ketoacidosis.

Urine tests use test strips, as do blood tests, or tablets that you drop into a sample of your urine. The test strips or tablets change color when they come into contact with sugar or ketones. The amount of color change shows the amount of sugar or ketones in your urine.



For more information about diabetes, call the American Diabetes Association at 800-232-3472.

This handout provides a general overview on this topic and may not apply to everyone. To find out if this handout applies to you and to get more information on this subject, talk to your family doctor.



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