

Diabetes & Exercise

What is diabetes?

Your body changes most of the food you eat into glucose (a form of sugar). Insulin is a hormone produced by the pancreas that allows glucose to enter all the cells of your body and be used as energy. Diabetes is a disease that occurs when a person's body doesn't make enough insulin or can't use insulin properly. When you have diabetes, the sugar builds up in your blood instead of moving into the cells. Too much sugar in the blood can lead to serious health problems, including heart disease and damage to the nerves and kidneys.

There are 2 types of diabetes. Type 1 diabetes occurs when the body doesn't produce any insulin. In type 2 diabetes, the body either doesn't produce enough insulin or the cells ignore the insulin. Nearly 95% of people who are diagnosed with diabetes have type 2 diabetes.

How can exercise help my diabetes?

Exercise can help control your weight and lower your blood sugar level. It also lowers your risk of heart disease; a condition that is common in people who have diabetes. Exercise can also help you feel better about yourself and improve your overall health.

What kind of exercise should I do?

Talk to your doctor about what kind of exercise is right for you. The type of exercise you can do will mainly depend on whether you have any other health problems. Most doctors recommend aerobic exercise, which makes you breathe more deeply and makes your heart work harder. Examples of aerobic exercise include walking, jogging, aerobic dance or bicycling. If you have problems with the nerves in your feet or legs, your doctor may want you to do a type of exercise that won't put too much stress on your feet. These exercises include swimming, bicycling, rowing or chair exercises. No matter what kind of exercise you do, you should warm up before you start and cool down when you're done. To warm up, spend 5 to 10 minutes doing a low-intensity exercise such as walking. Then gently stretch for another 5 to 10 minutes. Repeat these steps after exercising to cool down.

When you start an exercise program, go slowly. Gradually increase the intensity and length of your workout as you get more fit. Talk to your doctor for specific advice.

Are there any risks to exercising for people who have diabetes?

Yes, but the benefits far outweigh the risks. Exercise changes the way your body reacts to insulin. Regular exercise makes your body more sensitive to insulin, and your blood sugar level may get too low (called hypoglycemia) after exercising. You may need to check your blood sugar level before and after exercising. Your doctor can tell you what your blood sugar level should be before and after exercise.

If your blood sugar level is too low or too high right before you plan to exercise, it's better to wait until the level improves. It is especially important to watch your blood sugar level if you exercise in really hot or cold conditions, because the temperature changes how your body absorbs insulin.

How will I know if my blood sugar is too low while I'm exercising?

Hypoglycemia usually occurs gradually, so you need to pay attention to how you're feeling during exercise. You may feel a change in your heartbeat, feel shaky or anxious, or suddenly begin to sweat more than normal. When you feel this way, you should stop exercising and follow your doctor's advice about how to treat hypoglycemia.

People who have diabetes should carry at least 15 grams of a fast-acting carbohydrate with them at all times in case of hypoglycemia. The following are examples of quick sources of energy that can relieve the symptoms:

- Non-diet soda- ½ to ¾ cup
- Fruit juice- ½ cup
- Fruit- 2 tablespoons of raisins
- Milk- 1 cup
- Candy- 5 Lifesavers
- Glucose tablets- 3 tablets (5 grams each)

If you don't feel better 15 minutes after having a fast-acting carbohydrate, or if monitoring shows that your blood sugar level is still too low, have another 15 grams of a fast-acting carbohydrate.

What else should I do to exercise properly?

Many people who have diabetes have problems with the nerves in their feet and legs, sometimes without even knowing it. This is called [diabetic neuropathy](#). So it's important that you wear shoes that fit well and have plenty of room when you exercise. Otherwise you could develop blisters or other sores on your feet that can lead to infection and other problems. You should check your feet before and after you exercise to make sure there are no blisters or other sores.

Should I drink more fluids during exercise?

Yes. When you're exercising, your body uses more fluid to keep you cool. By the time you feel thirsty, you may already be getting dehydrated. Dehydration (not enough fluid in your body) can affect your blood sugar level. Drink plenty of fluid before, during and after exercise.

Exercise checklist for people who have diabetes

- Talk to your doctor about the right exercise for you.
- Check your blood sugar level before and after exercising.
- Check your feet for blisters or sores before and after exercising.
- Wear the proper shoes and socks.
- Drink plenty of fluid before, during and after exercising.
- Warm up before exercising and cool down afterward.
- Have a snack handy in case your blood sugar level drops too low.