

# DIABETES: ACTIVELY STAYING HEALTHY



## Why is Exercise Important for Someone with Diabetes?

- Exercise can lower blood glucose levels and improve your body's ability to use glucose. Working muscles use glucose more effectively than resting muscles. Studies show that regular exercise improves the ability of cells to use insulin. And that means you may be able to decrease the amount of medication you take to help control your blood glucose level. Physical fitness also can help reverse the resistance to insulin that occurs with obesity.
- Exercise can help reduce risk factors that can lead to heart disease—a major threat to people with type 2 diabetes. That is, exercise reduces the amount of fats (cholesterol and triglycerides) in the blood. It's also the best way to increase the amount of high-density lipoprotein (HDL) cholesterol, the type of cholesterol that protects against heart disease.
- Exercise helps lower blood pressure. High blood pressure (hypertension) contributes to many problems that can occur with diabetes, such as kidney and eye complications.

Additional benefits of a regular exercise program for people with diabetes include:

- Improved cardiovascular fitness.
- Improved flexibility.
- Improved muscle strength.
- Help with weight loss and weight maintenance.
- The same benefits and enjoyment that people without diabetes gain from a regular exercise program!

## Is Exercise Risky?

While you hear much about the physical and psychological benefits of exercise, you usually don't hear about the risks. And there can be risks, especially if you have a chronic disease such as diabetes. Discuss this with your healthcare provider before beginning any exercise program or if you have any restrictions with any type of exercise.

The following are specific risks associated with exercise when you have diabetes:

### Foot Injury

While walking is a safe exercise for most people, if you have any foot deformities, nerve damage, or circulatory changes, walking may cause additional problems. Always look at your feet before and after exercise, paying attention to any areas that are red, hot, blistered, swollen, or tender. Seek medical advice immediately if such problems persist. Wearing proper shoes can help prevent foot injuries.

### Hypoglycemia

Since exercise enhances the glucose-lowering effects of diabetes medicines (pills and insulin), you may need to monitor your blood glucose levels before, during, and after exercise, especially if you're still taking these medicines. Carry a source of carbohydrate, such as glucose tablets, and use it if you have symptoms of hypoglycemia such as shakiness, sweating, blurred vision, dizziness, or headaches.

## Silent Heart Attacks

People with diabetes who have impaired nerve sensations sometimes don't experience the typical signs or symptoms of a heart attack (such as chest pain). If these people over-exercise, they can risk having a heart attack without any feelings or symptoms.

## Worsening of Diabetes Complications

This risk is of particular concern if you have eye damage. If you've been told you have active retinopathy, you may need to avoid strenuous, jarring exercises such as jogging and weight lifting.

For most people, exercise is safe. However, it's a good idea to check with the Numetra Medical Director or your primary care provider before beginning an exercise program: He or she can probably tell you which activities are safe for you or refer you to an exercise specialist, who can custom-tailor a program for you. If any of the following statements are true for you, discuss them with the doctor before exercising.

- You have a history of heart trouble, heart murmur, or heart attack.
- You often have pains or pressure in your chest area, neck, shoulder, or arm during or right after activity.
- You often have shortness of breath with light activity.
- You often experience shakiness, dizziness, sweating, faintness, blurry vision, or headaches.
- Your blood glucose level has been higher than your target range for the last few months.
- You have low glucose levels with exercise.

Your custom-tailored exercise program can help you “fashion” a healthier you. Keep these tips in mind when you are exercising:

- Monitor your blood glucose level before and after exercise to see how exercise affects it.
- Be alert for any signs of low blood glucose level (weakness, dizziness, increased sweating, excessive hunger, nausea, shakiness, or mental confusion).
- Carry some fast-acting sugar, such as glucose tablets.
- Drink extra liquids before, during, and after exercise, especially in hot weather. Water is usually the best choice.

Developed in cooperation with the International Diabetes Center, Minneapolis, Minnesota.