

## Physical Activity and Diabetes

### *Benefits and guidelines*

*This handout describes some of the benefits of physical activity. It also gives tips for starting an exercise program.*

Getting regular physical activity is very important if you have diabetes. Physical activity, a healthy food plan, and diabetes medicines (if needed) can help you keep your blood glucose under control.

### **How does physical activity benefit people with diabetes?**

- Regular physical activity can lower your blood glucose levels and improve your body's ability to use glucose. Physical activity can:
  - Help you become more sensitive to the insulin your body makes, if you have pre-diabetes or type 2 diabetes
  - Reduce your insulin needs if you have type 1 diabetes, or type 2 diabetes that requires insulin
- If you are overweight, regular physical activity can increase the number of insulin receptors in your body. This improves your ability to use insulin and lowers your insulin resistance.
- Physical activity can lower your risk for heart disease and other heart problems. These goals are very important for people who have diabetes.
- Regular physical activity can:
  - Lower your blood pressure
  - Increase your HDL ("good") cholesterol, which protects against heart disease
  - Lower your LDL ("bad") cholesterol, which forms plaque that can block blood vessels



*Regular physical activity has many health benefits.*

- If you have type 2 diabetes, physical activity and a healthful food plan can help you control your blood glucose levels. This may reduce your need for diabetes medicines.
- Physical activity, along with a lower-calorie food plan, may help you reach your weight-loss goals. And, after you lose weight, regular physical activity may also help you maintain your lower weight.
- If you have pre-diabetes, being active almost every day is one of the best ways to delay or prevent type 2 diabetes.
- Physical activity reduces stress and can help ease mild depression.

## How do I start a physical activity program?

Let your healthcare provider know you are starting a new exercise program. This is especially important if you:

- Have been diagnosed with heart disease or have high blood pressure. It is rare, but your provider may want you to have an exercise test with *electrocardiogram* (ECG) monitoring.
- Have any serious kidney, eye, or nerve problems from diabetes. Your provider may want to assess your condition and recommend certain types of exercise.

## Planning Your Activity

When planning your physical activity program, think about:

- **What type of activity you will do:** The type of activity you choose is up to you. It is best to choose something you enjoy doing. *Aerobic*, or “cardio” exercise, is best. This type of movement raises your heart and breathing rate. Aerobic exercise is best because it improves your body’s sensitivity to insulin. It can also increase your endurance.
- **How long should you be active:** A good goal is 150 minutes of activity a week. This can be done 30 minutes or more at a time, or it can be done in 10-minute sessions. If weight loss is your goal, getting close to 60 minutes of activity at a time is most helpful.
- **How often should you be active:** Spread your exercise over at least 3 days a week. Try not to go more than 2 days in a row without being active. If weight loss is your goal, being active every day will help you reach your goals faster.
- **How much effort to exert:** To improve your blood glucose control and heart health, try to do some type of *moderate-intensity* physical activity. You should be able to talk during moderate-intensity activity. If you are too out of breath to pass the “talk test,” slow down.

### How intense is your physical activity?

- A person doing a **moderate-intensity** activity can talk, but not sing, during the activity.
- A person doing **vigorous activity** cannot say more than a few words without pausing to breathe.

When you plan your activities for the day, also remember to:

### What types of exercise are aerobic?

- Bicycling
- Cross-country skiing
- Dancing
- Hiking
- Jogging/running
- Rowing
- Skating
- Swimming
- Walking
- Water exercise

### Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

Endocrine and Diabetes Care Center: 206.598.4882

UW Medicine Neighborhood Clinics: 206.520.5000

Other patients, please call your healthcare provider:

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- **Include time for warm-up and cool-down:** Start your activity session slowly. When you are done, cool down to allow your heart to return to a normal state. For example, walk slowly for 5 minutes or do some extra stretching after your movement.
- **Spend less time sitting:** Break up the time you spend sitting while watching TV or working on the computer. If you have been sitting for longer than 90 minutes, stand up and walk for a few minutes.
- **Try resistance training, if you have type 2 diabetes:** We recommend doing *resistance training* (such as lifting light weights) at least 2 times a week, unless your healthcare provider has told you not to do this type of activity.

**Remember, any physical activity is better than no activity.**

### More Tips

- Wear comfortable shoes that fit well and support your feet.
  - Always carry a card that states that you have diabetes. Include your name, address, phone number, and your healthcare provider's name and phone number on the card.
  - Wear a medical alert necklace or bracelet.
  - Always check your feet for any injuries after physical activity, at least once a day.
  - Drink lots of fluids before, during, and after physical activity, especially in hot weather. Water is best!
  - Remember that physical activity can lower your blood glucose level. Insulin and other types of diabetes medicine can also lower blood glucose levels. This is why people who use insulin or take glyburide, glipizide, or glimepiride should have glucose tablets or another quick-acting carbohydrate with them at all times. Talk with your healthcare provider about your diabetes medicines and ask if you should carry a carbohydrate source when you exercise.
- If you take these types of diabetes medicine:
- Check your blood glucose before you start your activity.
  - If your blood glucose level is less than 100 mg/dL, eat a small carbohydrate snack before starting your activity.
  - For activities that will last an hour or more, check your glucose level during your activity. You may need to eat a carbohydrate snack every 30 minutes or so.
- The effect of physical activity on blood glucose levels is different for everyone. Always pay attention to your body. If you have concerns, talk with your healthcare provider.