



## Exercise and Type 2 Diabetes


Did you know that aerobic activity, strength training, and stretching all have unique benefits? One of the greatest benefits of exercise is that it can help prevent diabetes or it can help you manage diabetes if you have it. You can start by being more active every day. Get up and move as often as possible. Mix it up! Try walking, swimming, dancing, cycling, boxing, weight-lifting, or any variety of activities to find the ones you enjoy.

### Benefits of Exercise:



- Helps prevent or delay the onset of type 2 diabetes.
- If you have diabetes, exercise helps with:
  - Weight loss and maintenance 
  - Stronger, healthier heart 
  - Improved sleep
  - Improved mood, decreased stress, increased energy
  - Improved blood pressure, cholesterol, triglycerides, and blood glucose levels
  - Increased lean muscle mass and strength
  - Injury prevention

### Exercise and Blood Glucose:

- Exercise helps lower blood glucose by increasing the muscle's ability to take up and use glucose.
- Exercise can help lower the amount of medication needed to keep blood glucose levels within your goal range.
- Monitor blood glucose before and after you exercise to learn how your glucose level changes with activity.
  - If you take a glucose lowering medication that contributes to hypoglycemia, such as insulin, sulfonylureas (SFUs) or glinides, you may need extra carbohydrate for exercise. If your glucose is less than 100 mg/dL before you start an activity, consume 15 grams of carbohydrate to keep your glucose from going too low.

- After exercise, if your glucose is less than 100 mg/dL, follow your meal plan. If it is not time for your next meal you may need to add a snack. 
- Stop exercising and test your blood glucose if you feel symptoms of hypoglycemia, including excessive sweating, anxiousness, shakiness, confusion, and/or low energy.
- A change of heart rate is normal when exercising.

### Guidelines:

- Talk with your doctor before starting a new exercise routine, especially if it is more vigorous than your comfortable walking pace.
- Challenge yourself by gradually increasing effort and exercise time as you become more fit.
- Wear comfortable, well-fitting shoes and socks to prevent sores or blisters on your feet. Check your feet regularly! 
- Carry a treatment for hypoglycemia, such as glucose tablets, gels, juice, or a piece of fruit. 
- Work toward exercising at least 150 minutes per week at a moderate intensity (i.e., brisk walking, water aerobics). Try 30 minutes a day for 5 days a week.
- If you exercise at a vigorous intensity (i.e., jogging, running, swimming laps), aim for at least 75 minutes per week. Try 25 minutes, 3 days a week.

- You can also "mix and match" your activity by combining moderate- and vigorous-intensity activities within a week or even accumulate your time over multiple short sessions in a day (i.e., 10 minutes of brisk walking 3 times a day).

### Resources

1. American Diabetes Association. Blood Glucose Control and Exercise. <http://www.diabetes.org/food-and-fitness/fitness/get-started-safely/blood-glucose-control-and-exercise.html>.
2. Rosenbloom C, Coleman, E. Sports Nutrition: Practice Manual for Professionals. 5th ed. Academy of Nutrition and Dietetics.
3. U.S. Department of Health and Human Services. National Diabetes Education Program: Diabetes Health Sense. <http://ndep.nih.gov/resources/diabetes-healthsense/>.
4. U.S. Department of Health and Human Services. Physical Activity Guidelines for Americans. <http://www.health.gov/paguidelines/>.

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Written by SCAN and DCE registered dietitians (RDs) to provide nutrition guidance. The key to optimal meal planning is individualization. Contact a SCAN or DCE RD for personalized nutrition plans. Access "Find a SCAN RD" at [www.scandpg.org](http://www.scandpg.org) or by phone at **800.249.2875**. Find a DCE RD at [www.dce.org](http://www.dce.org)