

Exercise and Physical Activity

How does exercise help in diabetes management?

- Improves blood sugar control
- Reduces insulin resistance
- Improves blood pressure
- Improves cholesterol levels
- Aids in weight loss and maintenance
- Lowers risk of heart disease and cancer

1. Start with Safety

- If you have retinopathy, cardiovascular disease, or neuropathy, **consult your doctor** before beginning any new exercise program.
- Check your feet for any injury, wounds or sores before and after activity. Buy supportive shoes to prevent sores and blisters.
- Carry your ID and wear your medic alert necklace or bracelet.
- Speak to your doctor if you have any shortness of breath or chest pains.
- Carry some fast acting sugar such as glucose tablets or candies, in case you need to treat a low blood sugar.

2. Monitor your Blood Sugar

Test and record your blood sugar levels before, during, and after activity to see how exercise affects your blood sugar. Follow these tips in helping plan your activity:

- If your BG is $<4.0\text{mmol/L}$ **do not exercise**. Follow guidelines for treating low blood sugar
- If your BG is $<5.5\text{mmol/L}$ consume 30g carbs 1 hour before activity, and 15g carbs 30 minutes before activity
- If your BG is >5.5 consume 15g carbs 1 hour before activity, and no carbs 30 minutes before activity
- Do not exercise if you are experiencing high blood sugars with ketones or a BG $>17\text{mmol/L}$

3. Stay Hydrated

Drink water before, during, and after exercising to avoid dehydration. If your blood sugars are poorly controlled you are at higher risk for dehydration.

4. Time your Exercise Right

The best time to exercise is 1-3 hours after a meal when your blood sugar levels are at their highest. However, exercising at anytime is better than not exercising at all.

Balance All 3 Types of Activity

Cardiovascular

Cardiovascular exercise uses your major muscle groups to increase your heart rate. Try to aim for 30 minutes per day, 5 times a week. Some examples include walking, biking, swimming, or dancing.

Resistance

Resistance exercises involve working against a resistance, either your body weight, water, or hand weights. Aim to do resistance exercises 3 times per week. Some examples include pilates, weight lifting, or doing push-ups and sit-ups.

Stretching

Stretching exercises are designed to improve your range of motion. Try to include stretching with all your exercise to improve flexibility, prevent injury, and reduce muscle soreness. A good stretching exercise is yoga.

Escape Excuses

- “I don’t have time to exercise.” – Even small amounts of exercise can be beneficial to your health. Exercise on a work break or after dinner
- “I’m too tired to exercise.” – Try light exercise like taking a short walk. Exercise can boost your energy levels and help you sleep better.
- “I don’t have money to pay for a gym membership.” – Walking, running, or swimming can be inexpensive activities. Try sit-ups and push-ups as an inexpensive form of resistance exercise.

Make Exercise Fun!

1. Make plans to exercise with a friend on a weekly basis.
2. Start a walking group in your neighborhood.
3. Participate in games with your kids or grandkids.
4. Sign up for a team sport you enjoy.
5. Walk, jog, or ride your bike in a neighborhood you like.
6. Don’t over do it.
7. Choose exercises that are sustainable.
8. Aim to “move more” every day.

Set Goals!

Set achievable goals to help increase your physical activity.

Example: I will go for a 25 minute walk after dinner every day

Goal #1: _____

Goal #2: _____

** Exercise can increase your risk of having a low blood sugar (<4.0mmol/L). If you feel shaky, light headed, or weak, test your blood sugar. If it is below 4.0mmol/L, follow guidelines for treating a low blood sugar.*