



Exercise & Physical Activity

How does exercise help diabetes management?

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

1 | Start with safety!

- a | If you have retinopathy, cardiovascular disease or neuropathy, TALK TO YOUR DOCTOR before starting a new activity program.
- b | Take care of your feet. Check for cuts, bruises, blisters and sores before and after exercise. Buy supportive shoes and do not wear over-the-counter insoles which can cause blisters.
- c | Carry your ID and wear your MedicAlert™ bracelet or necklace.
- d | Listen to your body. Speak to your doctor if you are very short of breath or have chest pains.
- e | Carry some fast-acting carbs like glucose tablets or Life Savers® in case you need to treat a low blood sugar.

3 | Drink water

Drink water before, during and after exercise to keep hydrated. If your blood glucose is poorly controlled, you are at increased risk for dehydration.

2 | Monitor your blood sugar

Measure and record your blood sugar before, during and after activity to learn how exercise affects your blood sugar. Prior to exercise, use this chart to guide your routine:

| Blood Glucose | 30 min pre-exercise | 60 min pre-exercise |
|--|--|---------------------|
| < 4 mmol/L | Do not exercise. Follow the "15 rule" to increase blood sugar. | |
| < 5.5 mmol/L | 15g carbs | 30g carbs |
| ≥5.5 mmol/L | No carbs needed | 15g carbs |
| Do not exercise if: >14mmol/L with ketones OR >17mmol/L without ketones | | |

4 | Time your exercise right

The best time to exercise is 1-3 hours after your meal when blood glucose is usually highest. However, exercising any time is better than no exercise at all!

balance all 3 types of activity

1 | Cardiovascular

- Exercise that uses your major muscle groups to increase your heart rate
- Aim for 150 minutes per week (30 minutes a day, 5 days per week)



- Walking
- Hiking
- Biking
- Swimming
- Running
- Soccer
- Tennis
- Dancing

2 | Resistance

- Exercise that involves working against a resistance – either your body weight, water or hand weights
- Aim for 3 days per week



- Weight lifting
- Resistance bands
- Pilates
- Push-ups & sit-ups

3 | Stretching

- Exercise that improves your range of motion
- Aim to incorporate stretching into your regular exercise routine to improve flexibility, prevent injury, and reduce muscle soreness



- Stretches
- Yoga

escape excuses!

| Common excuses for not exercising: | Overcome the excuse by: |
|---|---|
| I have pain in my joints or old injuries that make exercise difficult | Try swimming, gentle walking, biking, rowing or pilates. |
| It's too hot or cold outside | Try walking inside a shopping mall or at a time of day when the weather is milder, or do an exercise video at home. |
| I'm too tired to exercise | Try light exercise like a short walk. Exercise can boost your energy levels and help you sleep better. |
| I don't have time to exercise | Even small amounts of exercise can make a difference. Exercise on a work break or after dinner. Schedule time for exercise in advance. |
| I don't have money to pay for a gym membership | Walking, running, skipping, and swimming are inexpensive. Try sit-ups or push-ups or an inexpensive resistance band. |
| I don't think exercise will actually benefit me | Try testing your blood sugar before and after exercise to track your improvements. Seeing your progress will help motivate you to continue! |

make exercise fun!

- 1 | Make plans with a friend to exercise together on a weekly basis
- 2 | Start a walking group in your neighbourhood
- 3 | Participate in games with your kids or grandkids
- 4 | Sign up for a team sport
- 5 | Walk, jog or ride your bike in neighbourhoods you like
- 6 | Don't overdo it! Choose exercises that are sustainable



exercise in every season

- Skating
- Skiing
- Tobogganing
- Walking in a mall
- Fitness classes
- Swimming
- Biking
- Running
- Skipping
- Group sports

set goals!

- 1 | I will go for a 20 minute walk after dinner on Monday, Tuesday and Thursday.
- 2 | I will participate in outdoor activities with the kids for 2 hours each day on the weekend.
- 3 | I will do a 45 minute Pilates DVD in my living room while watching TV on Monday nights.
- 4 | I will take the stairs to my apartment, at the subway, and at work every day.
- 5 | I will add 25 minutes of resistance training 3 days a week in addition to my current exercise.
- 6 | My 1st goal is: _____
- 7 | My 2nd goal is: _____

what about low blood sugars?

- Exercise can increase your risk of having a low blood sugar of less than 4mmol/L.
- You may feel shaky, light headed, nervous, hungry, sweaty or weak. If you have any of these symptoms,
 1. Check your blood sugar. If you are less than 4mmol/L, follow the "15 Rule."
 2. **TREAT** the low by having 15g of fast acting carbohydrate (3 packs of sugar, ½ cup juice or pop).
 3. Wait 15 minutes. If you are still <4mmol/L, **TREAT** again.
 4. If you are above 4mmol/L and your next meal is more than 1 hour away, **EAT** a snack of starch and protein. For example: 1 oz cheese & 6 soda crackers.

15
Rule