

## 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 ID and wear a 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 fast-acting carbs; e.g., 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 & record your blood sugar before, during and after activity to learn how exercise affects your blood sugar. 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 of 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
- Mall walking
- 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 mins of resistance training 3 days a week in addition to my current routine.
- 6 | My 1<sup>st</sup> goal is: \_\_\_\_\_
- 7 | My 2<sup>nd</sup> 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:

# 15 Rule

1. Check your blood sugar. If you are less than 4mmol/L, follow the "15 Rule."
2. **TREAT** low by having 15g of fast acting carbs (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.