



Exercising with Type 2 diabetes

Every move counts

Move more and reduce your sedentary time each day by incorporating different types of movement. It is never too late to start, some is always better than none!

How to get started

Regular exercise reduces the occurrence of Type 2 diabetes by 20–60% and combined with dietary changes significantly reduces the amount of sugar in the blood, risk of obesity and improves your heart function. It also helps to control type 2 diabetes by improving the body's use of insulin, burning excess body fat, which helps to decrease and maintain weight, improve muscle strength, increase bone density and strength (low bone strength is linked to a higher rate of fractures and osteoporosis in type 2 diabetes), and lower blood pressure (which lowers heart disease and stroke risks).

Exercise also helps to improve and maintain your health by reducing the risk of developing other diseases associated with type 2 diabetes, such as heart disease and stroke, and the increased risk of infections, blindness, damage to the nerves of the foot (which often lead to amputations), kidney disease and peripheral arterial disease. Undertaking an exercise plan will help prevent the complications of type 2 diabetes developing and maintain and improve your overall health. **Take all medicines as recommended by your doctor or pharmacist.**

Warm up and cool down

Always start your exercise session with a 10–15-minute warm up to loosen up the muscles and raise the heart rate safely. Warm-up exercises include dynamic stretches, range-of-motion activities and low intensity movements. This can be done standing up, walking around, marching on the spot or seated.

Always end your exercise session with a 10–15-minute cool-down to ensure your heart rate and breathing rate return to normal safely. Cool down exercises include slowly decreasing the intensity of your activity and simple stretches.

Be active

Some is good, more is better

How much:	Aim for at least 150-300 minutes a week of moderate intensity or at least 75-150 minutes a week of vigorous intensity physical activity. Start moving more each day increasing to regular movement every day and add sessions as your strength and stamina improve.
How hard:	Any movement helps. Aim for moderate to vigorous intensity—aim to get slightly breathless. Take frequent breaks, if necessary.
How long:	Aim to spread out sessions throughout the week. If your fitness level is low, start with 5–10 minute sessions and add 10-minute intervals until you can comfortably exercise for longer.
What type:	All physical activity counts. Try activities within your abilities: walking, cycling, jogging, dancing, swimming, water aerobics, hiking—choose something you enjoy! Recreational team sports such as soccer, tennis or volleyball are great social activities too! Household activities such as cleaning, vacuuming or walking your dog are great activities for your health.

What will it do for me?

Regular exercise raises the heart rate sufficiently to improve blood glucose control, increase insulin sensitivity and improve heart and lung function, which in turn reduces the risk of heart disease, stroke and other health-related complications.

Build strength

How much:	At least twice a week.
How hard:	Start with light weights or resistance exercises (especially if you have high blood pressure). Avoid over-gripping or raising weights above the shoulders as this will raise your blood pressure.
How long:	Choose 8–10 exercises targeting the upper and lower body and repeat each exercise 10–15 times. Try 1–3 sets of each exercise.
What type:	A variety of strength exercises using free weights, resistance machines or household items such as a can of beans or a weighted water bottle as a weight. Sprints, hill sprints, shuttle runs, punching bag training and other short interval activities are other fun ways to increase strength.

What will it do for me?

Regular strength exercises have been shown to significantly improve blood sugar control. It will also help you gain muscle, lose body fat, and reduce your risk for osteoporosis and painful fractures.

Improve balance

How much:	At least three days a week.
How hard:	Choose 2–3 balance exercises and repeat each exercise 10–15 times.
How long:	Hold each balance for 10-30 seconds.
What type:	Try yoga, Tai Chi, or simple home balance exercises. Balance exercise can be done standing up using a chair, against a wall or sitting down. Ensure the area you are exercising in and the type of balance exercise is safe.

What will it do for me?

Practicing balance exercises helps to train your body to react more quickly to a loss of balance and can help reduce the risk of falls, fractures and injuries.

Sedentary living

Reduce the amount of time being sedentary. Move more and break up sedentary time. Sedentary behavior is defined as time spent sitting or lying with low energy expenditure, while awake in the context of occupational, educational, home and community settings, and travel. Higher amounts of sedentary behavior can increase the risk of heart disease, type 2 diabetes and some cancers.

Replace sedentary behavior with more physical activity of any intensity (including light intensity). It is possible to avoid sedentary behaviour and be physically active while sitting or lying, through, for example, upper body led activities, inclusive and/or wheelchair-specific sport and activities. Try seated stretches for those with limited mobility; using active forms of transport; standing while working (within your abilities and environment), and other accessible active options to replace sedentary time.



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Your exercise, your way!

Choose activities that are easy to start with, and that you enjoy. Always exercise within your abilities. If mobility is difficult, adaptive cycling, swimming and chair-based exercises may be better alternatives. Exercise with friends and family or join a group class to improve your motivation levels and engage in social activities. Try exercising both indoors and outdoors and see which you prefer! Most importantly: **some physical activity is better than none.**

Exercise safety

Always take your medicine and severity of type 2 diabetes into account when planning exercise activities. If your type 2 diabetes is unstable, or you have any complications of type 2 diabetes, discuss how you can increase your physical activities to maximize health benefits with your specialist, doctor or diabetes nurse.

Food and diabetic medicines affect exercise benefits differently. Discuss with your doctor how to increase your physical activity given your lifestyle and medication to avoid hypoglycemia. Ensure you have carbohydrate sources available to avoid hypoglycemia.

Avoid exercising outdoors in extreme heat or high humidity. When the weather is bad, try exercising indoors at a gym or walking at a mall.

Avoid exercise when your blood glucose is high and you are feeling unwell. If blood glucose is high, and you feel well, ensure proper hydration and monitor for signs and symptoms of dehydration (e.g. increased thirst, nausea, severe fatigue, blurred vision or headache).

Avoid exercise if you have persistent or non-healing foot sores, as exercise may increase the risk of infection. Check your feet on daily basis, especially before and after exercise, as you may be unaware of blisters due to lack of sensory awareness.

Start with shorter sessions (e.g. 10-15 minutes) and slowly build up to the recommended level. Aim to get slightly out of breath, but exercise sensibly and stop the activity if you feel unwell, and always follow your diabetes management plan.

Always wear comfortable clothing and shoes that give good support. Take frequent breaks if necessary, and drink water before, during and after exercise. Monitor for signs and symptoms of dehydration (e.g. increased thirst, nausea, severe fatigue, blurred vision or headache).

Choose environments that you can access freely and safely. Please ask your healthcare provider or local leisure organization for advice on the best option for you.

Helpful resources

Physical activity and type 2 diabetes can be a complex issue. Contact Diabetes Canada (1-800-226-8464) to find out about different peer support groups or medically supervised programs that might be available to you. Their website has great information and specific guidelines related to diabetes and physical activity. <https://www.diabetes.ca/nutrition---fitness/exercise---activity>

Scan for more physical activity resources!

