



## GETTING STARTED ON THE ROAD TO INCREASING PHYSICAL ACTIVITY

Once you have planned to start exercising more and have talked with your doctor about how much exercise would be appropriate for you, it's time to get going. Listed below are some steps you can take to determine what type of physical activity interests you the most and how to stay motivated to continue:

- Talk with a physical activity expert such as a recreation counsellor or personal trainer.
- Call the Parks and Recreation Department and the YM/YWCA in your community and ask about organized programs.
- Talk with friends who have built physical activity into their daily routines and ask them how they did it.
- Buy a pair of walking or running shoes.
- Find out if a nearby mall has a walking route posted or a regular walking program.

- Start a walking group and get your friends interested in walking with you. Exercise is a lot more fun when you have someone to talk to!
- Make sure your physical activity involves something you enjoy. For example, if you like swimming, find out when the local pool is open to the public.
- To help keep you motivated, make a list of the health problems you already have that physical activity might help to improve.



### It's not as difficult as you think!

Improving your level of physical activity does not always have to include an organized venture. For example, stretching exercises might simply include rolling your shoulders and stretching your neck at a certain time of the day. You could always walk to the bank instead of driving the car. It's that easy!



## WHERE TO FIND MORE INFORMATION

### The Canadian Diabetes Association

National Office:  
15 Toronto St., Suite 800  
Toronto, Ontario M5C 2E3  
Phone: 1-800-226-8464 for the regional office nearest you or visit their website.  
e-mail: [info@diabetes.ca](mailto:info@diabetes.ca)  
[www.diabetes.ca](http://www.diabetes.ca)

### American Diabetes Association

ATTN: National Call Center  
1701 North Beauregard St.  
Alexandria, Virginia USA 22311  
Phone: 1-800-342-2383  
e-mail: [AskADA@diabetes.org](mailto:AskADA@diabetes.org)  
[www.diabetes.org](http://www.diabetes.org)

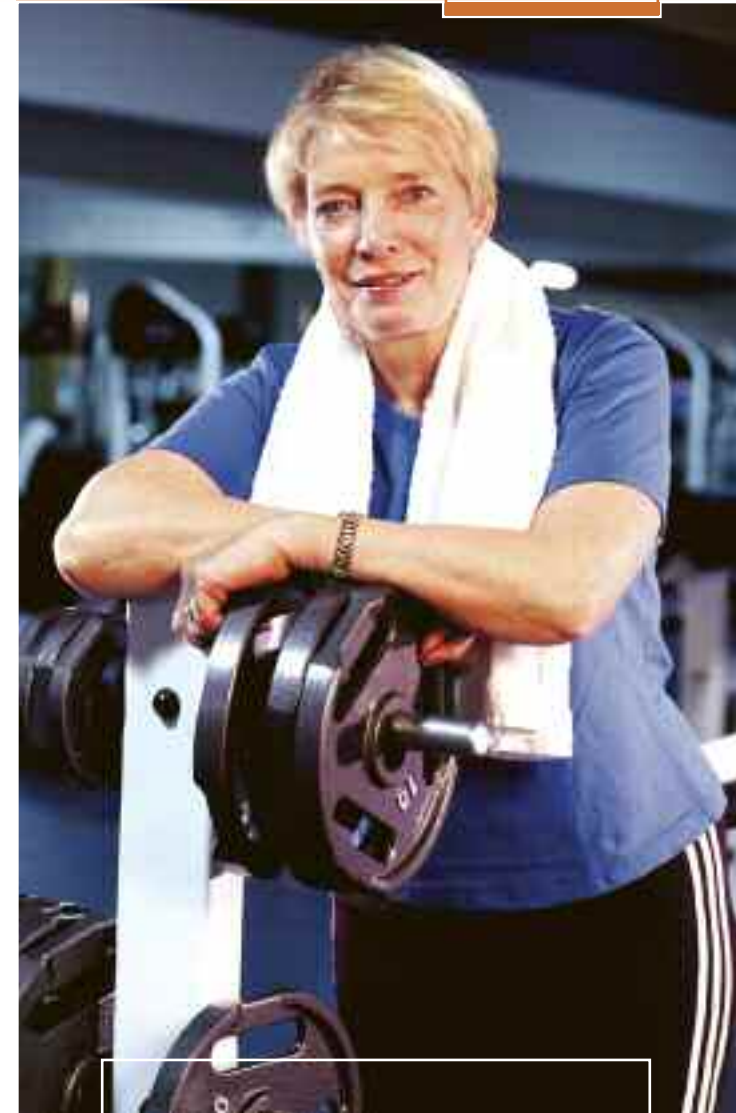
### Juvenile Diabetes Research Foundation International

Phone: 1-800-533-CURE  
e-mail: [info@jdrf.org](mailto:info@jdrf.org)  
[www.jdrf.org](http://www.jdrf.org)

### Canada's Physical Activity Guide

Phone: 1-888-334-9769  
[www.paguide.com](http://www.paguide.com)

The information found in this PROfile health brochure is of a general nature only. It is not intended to replace the advice of your pharmacist, physician, or other healthcare provider. If you have questions relating to your specific health concerns, please contact your personal healthcare provider.



Your PROfile Pharmacist has many resources for diabetes education and is always available to discuss your health concerns!

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# Diabetes & Exercise





## WHY IS EXERCISE IMPORTANT FOR PEOPLE WITH TYPE 2 DIABETES?

People with diabetes have too much sugar (glucose) in their blood. This situation can lead to harmful short-term and long-term consequences. Blood glucose acts as a “fuel” for the body, giving the cells of the body enough energy to do their job. Muscles require energy in a hurry when they are put into action.

In type 2 diabetes (90% of the people who have diabetes), the tissues become resistant to using insulin properly. Insulin is needed to draw glucose from blood into the cells. This condition is called “insulin resistance”. This is what initially causes excess glucose to be left behind in the blood, ultimately leading to type 2 diabetes.

Studies have shown that when people with diabetes exercise, blood glucose is drawn into the muscle tissue more easily, allowing insulin to do its work more effectively. Studies have also shown that the effect lasts longer than just the period of exercise, lowering the level of insulin resistance over a period of time, and aiding in the overall control of blood glucose.

## EXERCISE AND PREVENTION OF DIABETES

The long-term effects of exercise are a factor in the prevention of diabetes as well. A large study was conducted in people who had higher than normal blood glucose levels but were not classified as having type 2 diabetes. Over a six-year period, the group that exercised on a regular basis had a 46% lower rate of developing diabetes.



## HEART HEALTH AND WEIGHT CONTROL

Regular exercise has additional benefits with respect to heart health as well. People with type 2 diabetes are 2 to 4 times more likely to develop coronary artery disease than people who do not have diabetes. Important risk factors for this heart condition are abnormal cholesterol levels and high blood pressure. Regular exercise lowers these risk factors significantly. Approximately 80% of people with type 2 diabetes in Canada are overweight. Excess weight is a contributing factor to both the onset and severity of diabetes, and the risk for heart disease. Regular exercise and healthy diet are the best activities for weight management. It is important to discuss plans for any type of new diet plan or exercise regimen with your doctor and/or dietitian or diabetes educator.

## WHAT IF I TAKE INSULIN, WON'T MY BLOOD SUGAR GO TOO LOW WITH EXERCISE?

It is important for people with type 1 diabetes to tailor insulin use to their lifestyle. The main concern with increasing levels of exercise or activity too quickly is the potential onset of **hypoglycemia** (low blood glucose of less than 4 mmol/L). It is important to be able to quickly identify the symptoms of hypoglycemia so that action can be taken quickly. **Symptoms may include feeling hungry, shaky or lightheaded, nervous or irritable, sweaty, weak, a racing heartbeat, confused and/or numbness or tingling in the tongue or lips.** A fast-acting source of glucose, such as pre-packaged glucose tablets, or juice, should be available at all times for such an occurrence. Sometimes vigorous exercise will cause the blood glucose levels of a person with type 1 diabetes to rise rapidly because insulin is used up and the body calls excess stores of glucose into action.

**Create an exercise plan** - If you use insulin, it is important to create a plan for exercise with your doctor and diabetes educator. Monitor your blood glucose regularly before, during and after exercise and act according to your plan. Many people with type 1 diabetes have become elite athletes with the aid of careful monitoring and control.



## WHAT TYPES OF EXERCISE SHOULD I ENGAGE IN?

If you have been relatively inactive over the years it is important to “ease into” an exercise program. This should include a discussion with your doctor and diabetes educator about how much and what type of activity is appropriate for your circumstances.

Once you have decided on what type of exercise you will do, it is important to get right to it! Try to engage in activities that you will enjoy so that you will stick to your exercise plan. For example, if you enjoy walking and looking at nature, why not go to a nearby park or nature trail? Start slowly and increase the length of time you are active, and the intensity of the exercise, as you feel more comfortable.

Canada’s Physical Activity Guide recommends engaging in a range of activities that include:

- **Endurance, or aerobic** (e.g. walking, golfing, cycling, skating)
- **Flexibility** (e.g. gardening, stretching, T'ai Chi, curling)
- **Strength or resistance** (e.g. climbing stairs, lifting and carrying groceries, lifting weights/using weight machines)



The Canadian Diabetes Association (CDA) recommends that people with diabetes aim to accumulate at least 150 minutes of moderate-intensity aerobic activity (such as brisk walking) each week, spread over at least 3 nonconsecutive days. In addition, the CDA indicates that people with diabetes can benefit from performing strength exercises 3 times a week.

Your daily quota of activity doesn’t need to be performed all in one stretch. You can achieve the same benefits by breaking your activity into increments as small as 10 minutes. For instance, if you have a goal of being active for 30 minutes a day, you might want to do three 10-minute activities to make up your half hour. Don’t forget to build up your daily quota of exercise at your own speed!