

Regular physical activity is one of the most important things you can do to improve your health and help manage your diabetes.

The more physically active you are, the greater the health benefits will be. However, any activity, even at a slow pace, can have health benefits, and some activity is better than none at all.

## Benefits of physical activity

Physical activity plays a vital role in helping the body use glucose as fuel for the working muscles, which in turn lowers blood glucose levels.

When the body starts to exercise, the muscles need energy to move. This energy comes from glucose in the blood as well as glucose stored in the muscles and, occasionally, from stores in the liver.

There are plenty of other benefits of regular physical activity, including:

- reducing the risk of heart disease and stroke
- lowering cholesterol levels
- helping to lower blood pressure
- assisting with weight loss and maintaining a healthy weight
- slowing age-related loss of muscle mass
- preventing osteoporosis and risk of falls
- increasing strength, power and balance
- improving mood
- helping circulation in lower limbs.

## Types of physical activity

Doing a combination of different types of physical activity has proven benefits for managing diabetes. There are two main types of physical activity: aerobic exercise and resistance exercise.

### Aerobic exercise

Aerobic exercise is any activity that involves large muscle groups working at a pace that can be sustained for more than a few minutes. It gets your heart and lungs working harder. Examples include walking, dancing, aerobic exercise classes, cycling and swimming. For some people, moderate or intense aerobic exercise is not suitable. Light aerobic exercise may be a good alternative. Examples include yoga, lawn bowls, and choosing to walk up the stairs rather than take the lift.

### Resistance exercise

Resistance exercise involves working your muscles against a load or resistance. This can be your own body weight (such as moving from sitting to standing or doing squats or wall push-ups) or using equipment to provide resistance (such as machine weights, dumbbells, cans of food or resistance bands). Talk to a qualified exercise professional about a resistance program to suit your needs.

## How often should you exercise?

Ideally, aim to do some aerobic exercise on most—preferably all—days of the week, and resistance exercise two or three times a week.

## How hard do I need to exercise?

It's important to think about exercise intensity—or how much effort you put in—during physical activity. You need to exercise at a moderate level of intensity to get the most benefit from being active.

A good way to work out your level of intensity is to use a scale between 0–10:

- **Moderate Intensity (3–4 out of 10)**  
Requires some effort and causes an increase in your breathing but you can still hold a conversation (for example brisk walking, cycling).
- **Vigorous intensity (5+ out of 10)**  
Involves activities that make you breathe harder, puff and pant (for example jogging, circuit classes).

## How long do I exercise for?

The target amount of exercise will vary according to your goals and your initial level of fitness. If you currently do no physical activity, start by doing some activity and then gradually build up. You could start by joining together short blocks of exercise, such as combining a 15 minute walk with 15 minutes of cycling to make 30 minutes of moderate exercise.

Put together:

- at least 30 minutes of moderate intensity aerobic activity every day of the week (that is, 210 minutes a week) OR
- 40–45 minutes of vigorous intensity aerobic activity on at least three days of the week (that is, 125 minutes a week) OR
- a combination of moderate and vigorous aerobic activity PLUS
- 2–3 sessions of resistance training each week.

Spending too much time sitting down can have a negative effect on your health, regardless of whether you are meeting the recommended physical activity guidelines. It's important to minimise the amount of time spent sitting. Break up long periods of sitting as often as possible to reduce your health risks.

## Tips to help you be more active

- Plan the times and set the days to do your exercise, like an appointment.
- Exercise with a friend, family member or in a group.
- Increase your day to day activity such as walking all or part of the way to work or the shops.
- Set yourself an exercise goal and keep an exercise diary to track your progress.
- Use an activity tracker (step-counting device) to record your steps each day.
- Stand and move about while talking on the phone or during TV ad breaks.
- Look for opportunities to stand rather than sit (for example at work meetings).

## Starting a new exercise program

Before starting any new exercise or activity program, check with your doctor to make sure it's suitable for you.

If you are on insulin or other glucose lowering medications, you may need to take special precautions when exercising, to prevent your blood glucose level from dropping too low (hypoglycaemia or a hypo). Make sure you discuss this with your doctor, endocrinologist (diabetes specialist) or diabetes educator.

If you have peripheral neuropathy (damage to the nerves, usually hands and feet), it is important to talk to your diabetes health care team before beginning or increasing exercise, to make sure you minimise the risk of ulcers and other complications.

If you experience any of the following symptoms, stop exercising and consult your doctor immediately:

- chest pain
- unusual breathlessness
- nausea
- dizziness
- severe muscular or joint pain.

If you experience leg pain while exercising, stop and rest until the pain settles, and then resume the activity. Leg pain can be a sign of reduced blood flow to the lower limbs (also known as peripheral vascular disease). Talk to your doctor for more information.

## Exercise and diabetes

When you have diabetes, there are some extra things to consider before, during and after exercise.

### Blood glucose monitoring

If your doctor has asked you to self-monitor your blood glucose levels:

- Check your blood glucose levels before and after exercise, and during exercise if it's for longer than 30 minutes. Your blood glucose levels may be lower for up to 48 hours after exercise.
- Don't be worried if you see your blood glucose levels rise during brief, vigorous intensity exercise. This may persist for 1–2 hours after the activity.

## Adjusting insulin doses

If you are using insulin, you may need to adjust your insulin doses for physical activity. Insulin adjustment varies from person to person, so discuss your exercise routine and insulin adjustments with your doctor or diabetes educator.

## High blood glucose levels

If your blood glucose level is higher than 15mmol/L, and you are unwell, it is recommended that you avoid exercise.

If you have type 1 diabetes and your blood glucose levels are higher than 15mmol/L, make sure you check for ketones before you exercise. It can be dangerous to exercise when blood glucose levels are high and/or ketones are present. Follow the advice of your diabetes health professionals about extra insulin doses to help bring your blood glucose levels back into the target range.

## Hypoglycaemia

If you are using insulin or other blood glucose lowering medications you may be at risk of a hypo. This occurs when your blood glucose level drops below 4mmol/L.

- If you have a hypo, it is important to treat the hypo and delay exercise until your blood glucose level is in the target range.
- If your blood glucose levels before exercise are between 4 and 6mmol/L, you may need to have extra carbohydrate foods before you exercise. You may also need extra carbohydrate during and after physical activity (depending on how long you are exercising for) to reduce your risk of hypos. Ask your diabetes educator or dietitian for advice.
- Make sure you have some easily absorbed carbohydrate available (such as jelly beans, glucose tablets or gels) so you can treat a hypo if necessary.

## Remember

It's important to stay well hydrated before, during and after exercise.

Make sure you have appropriate footwear and check your feet at least once a day. A podiatrist can provide you with more information.

If you are exercising alone, stay safe by carrying a mobile phone with you.

Everyday activities such as gardening, washing the car and housework are great ways to keep active.

