



## FACT SHEET:

# Physical activity

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

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

## Benefits of physical activity

Physical activity can lower your blood glucose levels. This is because movement helps the body use glucose as fuel for the working muscles.

Your muscles need energy to move. This energy comes from glucose in the blood as well as glucose stored in the muscles. Sometimes, this energy also comes from stores in the liver.

There are many other benefits of regular physical activity. These include:

- reducing the risk of heart disease and stroke
- lowering blood fats (cholesterol and triglyceride) levels
- helping to lower blood pressure
- assisting with weight loss and maintaining a healthy weight
- slowing age-related loss of muscle mass

- preventing osteoporosis (also known as weak or brittle bones)
- reducing the risk of falls
- increasing strength, power and balance
- improving mood
- helping circulation in lower limbs.

## Types of physical activity

Physical activity is any movement you do that leads to your muscles needing to use glucose for energy. Exercise is any physical activity you do to improve or maintain your physical fitness. Doing a combination of different types of exercise can help you manage your diabetes. There are 2 main types of exercise: **aerobic exercise** and **resistance exercise**.

### Aerobic exercise

Aerobic exercise is any activity that involves large muscle groups working at a pace that lasts 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, so light aerobic exercise may be a good alternative. Examples include yoga, lawn bowls, and walking up the stairs rather than taking the lift.

### Resistance exercise

Resistance exercise involves working your muscles against a load or resistance. You can use your own body weight as resistance. Examples include moving from sitting to standing or doing squats or wall push-ups. It can also include using equipment to provide resistance such as machine weights, dumbbells, resistance bands, or household items such as cans of food or bottles of water. Talk to a qualified exercise professional such as an exercise physiologist or physiotherapist about a resistance program to suit your needs.

### How hard do I exercise?

It is 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. It causes an increase in your breathing, but you can still hold a conversation. Examples include brisk walking and cycling.

**Vigorous intensity** (5+ out of 10) involves activities that make you breathe harder, puff and pant. Examples include jogging and circuit classes.

### How long do I exercise?

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. Examples include combining a 15-minute walk with 15 minutes of cycling to make 30 minutes of moderate intensity exercise.

Put together:

- at least 30 minutes of moderate intensity aerobic activity every day of the week (that is, 210 minutes, or 3 hours and 20 minutes, a week) **OR**
- 40–45 minutes of vigorous intensity aerobic activity on at least 3 days of the week (that is, 125 minutes, 2 hours and 5 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 harm health, regardless of whether you are meeting the recommended physical activity guidelines. It is important to minimise the amount of time spent sitting. Break up long periods of sitting as often as possible to reduce your health risks.





### How often do I exercise?

Aim to do at least 30 minutes of moderate intensity aerobic exercise every day and resistance exercise at least 2-3 times a week.

### How do I get 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 by 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, or 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, in work meetings.

### How do I start a new exercise program?

Before starting any new exercise or activity program, check with your doctor to make sure it is 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 (also known as hypoglycaemia or a hypo).



Make sure you discuss this with your doctor, diabetes nurse practitioner or diabetes educator.

If you have peripheral neuropathy, or nerve damage usually in hands and feet, it is important to talk to your diabetes health professionals such as a podiatrist before beginning or increasing exercise. This reduces the risk of ulcers and other diabetes-related 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 is for longer than 30 minutes. Your blood glucose levels may be lower for up to 48 hours after exercise.
- Do not worry 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 taking insulin, you may need to adjust your insulin doses for physical activity. Insulin adjustment varies from person to person. Discuss your exercise routine and insulin adjustments with your doctor, diabetes nurse practitioner or diabetes educator.

### High blood glucose levels

- If your blood glucose level is higher than 15 mmol/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 15 mmol/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. This means you do not have enough insulin in your bloodstream for your muscles to use glucose for energy. It can lead to rising blood glucose levels, a build-up of ketones and diabetic ketoacidosis (DKA). Ask your doctor or diabetes nurse practitioner about extra insulin doses to help bring your blood glucose levels back into the target range.

### Hypoglycaemia

- If you are taking insulin or other blood glucose lowering medications, you may be at risk of a hypo. This occurs when your blood glucose level drops below 4 mmol/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 7 mmol/L, you may need to have extra carbohydrate (carb) foods before you exercise. Depending on how long you exercise for, you may also need extra carbs during and after physical activity. This will reduce your risk of hypos. Ask your diabetes educator or dietitian for advice.
- Make sure you carry some easily absorbed carbs with you such as jelly beans, glucose tablets or gels so you can treat a hypo if necessary.



### More information and support

- Go to [ndss.com.au](https://ndss.com.au) to find more resources such as the 'Managing hypoglycaemia', 'Looking after your feet', 'Blood glucose monitoring' and other fact sheets.
- Go to [ndss.com.au](https://ndss.com.au) to access the Ready, Set, Go-Let's Move online program and to search for other NDSS programs and services in your state or territory, or online.
- Go to [ndss.com.au/annual-cycle-of-care-podcasts](https://ndss.com.au/annual-cycle-of-care-podcasts) and listen to Episode 5 Foot health » Seeing a podiatrist, and other episodes in the Annual Cycle of Care podcast series.
- Go to [footforward.org.au](https://footforward.org.au) to find out more about looking after your feet.
- Go to [healthdirect.gov.au](https://healthdirect.gov.au) to find diabetes health professionals near you or search for:
  - » a diabetes educator at [adea.com.au](https://adea.com.au)
  - » a podiatrist at [podiatry.org.au](https://podiatry.org.au)
  - » a dietitian at [dietitiansaustralia.org.au](https://dietitiansaustralia.org.au)
  - » an exercise physiologist at [essa.org.au/find-aep](https://essa.org.au/find-aep).
- Ask your general practitioner (GP) if you are eligible for a rebate from Medicare to see an exercise physiologist or physiotherapist. Check with your private health fund provider to see if they offer rebates for exercise physiologists, physiotherapists, and exercise programs.



## Top tips

- Check with your doctor before starting any new exercise or activity program. It is important to make sure it is suitable for you.
- Aim to do at least 30 minutes of moderate intensity aerobic exercise every day and resistance exercise at least two or three times a week.
- Ask your diabetes health professionals about looking after your feet when exercising.
- If you are exercising alone, stay safe by carrying a mobile phone with you.



## Notes

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## The NDSS and you

Whether you have just been diagnosed with diabetes, or have been living with diabetes for a while, the NDSS provides a range of support services, information, and subsidised products to help you manage your diabetes, stay healthy and live well. For access to more resources (including translated versions), or to find out more about support services, go to **ndss.com.au** or call the NDSS Helpline on **1800 637 700**.