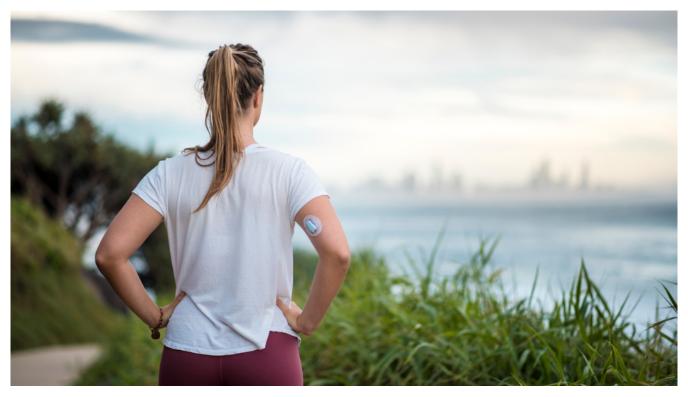


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# **Exercise & diabetes**



Everybody benefits from regular exercise. If you have <u>diabetes</u>, or are at risk of diabetes it plays an important role in keeping you healthy.

- How much exercise should I do?
- Benefits of exercise
- Exercising safely with diabetes
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- Steps to get started with exercise
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## How much exercise should I do?

For good health, Australian's should aim for at least **30 minutes of moderate intensity physical activity every day**. You may choose to do this all at once or you can split it up into shorter bouts of 10-15 minutes. Moderate intensity physical activity is being active enough that your heart is beating a little bit faster and you are "lightly puffing" but can



Keep in mind that the above recommendations are for general health – if your goal is to lose weight you may need to do more than 30 minutes.

Finding the motivation to exercise is often more challenging than exercising itself. It's important to find your own source of motivation, in order to achieve your exercise goals and keep you moving long term.

Our top five tips to keeping motivated:

- **Join a friend** You'll be more motivated to keep up your exercise schedule if you know someone else is relying on you.
- **Plan ahead** Dedicate time each day to exercise, it will be easier to keep to a schedule and you will start to form a routine.
- **Keep a diary** Track your progress and set goals, if you can see how well you're tracking you're more likely to keep up the good work.
- **Motivation** Surround yourself with positive role models to remind you why exercise is important and encourage you to continue.
- Reward yourself Treat yourself to new exercise gear or a massage to keep you
  motivated and celebrate your achievements.

## **Benefits of exercise**

Physical activity is one of the best things you can do for your overall health.

Being physically active every day is important for people of all ages and has a positive impact on physical and mental wellbeing.

For a person with diabetes, exercise can help:

- Insulin to work better, which will improve your diabetes management
- Reduce insulin resistance and reduce blood glucose levels
- Improve joint and muscle movement, and strengthen bones
- Maintain a healthy weight
- Lower your blood pressure
- Reduce your risk of heart disease
- Reduce stress and anxiety
- Improve your sleep.



ketones present in your blood or urine.

Exercise is important but before you start, make sure you assess safety first by considering the following:

## Where do you start?

See your GP for exercise clearance, especially if your <u>BGLs</u> are consistently out of your target range. Consider seeking advice from an Accredited Exercise Physiologist for an exercise program tailored to your individual needs.

### How are your feet?

You can get advice from your podiatrist or GP to choose appropriate footwear. It is a good idea to wear enclosed shoes and to check your feet before and after exercise for any changes or concerns.

## What about changes in BGLs?

Plan to do your physical activity at regular times on set days to reduce the chance of <a href="https://hypoglycaemia">hypoglycaemia</a>. Plan what exercise you'll do, how often, for how long and at what intensity. Talk to your diabetes educator particularly if you're balancing medication. Read more about BGLs and exercise.

### And don't forget about the essentials

If you wear medical alert identification, such as a bracelet or chain, ensure you have this on. Apply sunscreen and protect your head and body against the sun. Drink plenty of water before, during and after exercising to avoid dehydration.

#### Before an exercise session

## Ask yourself:

- Am I feeling well? It is not recommended that you exercise when you are feeling unwell. Take time out to rest and start exercising again when you are feeling better.
- Have I checked my BGL? When you are starting a new exercise routine or changing your current routine, it is important to check your BGLs more regularly. For people who require blood glucose lowering medication or insulin you should check your BGLs before, during and after exercise to avoid hypoglycaemia.

## **During an exercise session**

Check your BGLs every 20-30 minutes if the intensity, type or duration is new to you, or you experience symptoms of hypoglycaemia or hyperglycaemia.



- Have a carbohydrate snack or meal, if required.
- Be aware of overnight hypoglycaemia. Have a low GI snack before bed if you think your BGLs might drop during the night.
- If you require blood glucose lowering medication or insulin you may need to adjust your dose as your BGL reduces as a result of the exercise. This is particularly important if you are exercising at a high intensity or for longer than 30 minutes at a time. Speak to your health care team before making any changes to your medication dose.

# Exercise programs for people with diabetes

To find out more about our exercise programs, such as Beat It and Ready Set Go – Let's Move, visit our education and events section.

## A guide to BGLs and exercise

Discover the effects of your blood glucose levels and exercise.

## What should my BGLs be when I exercise?

< 4mmol/L: A BGL less than 4mmol/L is usually referred to as hypoglycaemia. Exercise should be postponed until you have treated your hypoglycaemia.

**4mmol/L – 5mmol/L**: Have a small amount of carbohydrate. I.e. piece of fruit or small glass of milk before you start exercising.

**5mmol/L - 10mmol/L**: This is the ideal BGL range to exercise. Let's get moving!

**10mmol/L** - **14mmol/L**: Caution needs to be taken with BGLs consistently over 10mmol/L, consider gentle exercise and see your GP to discuss ongoing treatment.

**15mmol/L**: If your BGL is more than 15mmol/L postpone strenuous exercise. This is considered 'hyperglycaemia' and can cause BGLs to rise further and lead to dehydration. Exercising when BGLs are above 15mmol/L can also lead to the production of ketones for people with type 1 diabetes.

## Know the warning signs to stop exercising

While exercise is generally a safe activity, there are some warning signs to look out for. These signs let you know that you may have overdone it, or your body is having an abnormal reaction to exercise.

If you experience any of the following during exercise, stop and rest.



- Feeling faint, light headed or dizzy
- Leg cramps or pain
- Symptoms of hypoglycaemia (stop immediately and treat!)

If the pain/symptom does not go away within five minutes, seek urgent medical attention – dial 000. If the symptom subsides see your GP before starting exercise again.

Remember to always discuss your exercise plans with your GP or an Accredited Exercise Physiologist especially if you have been inactive for a long time, have any medical conditions or injuries.

## Steps to get started with exercise

Being active can help you manage your diabetes by keeping your blood glucose levels (BGLs) within your target range and helping you to achieve and maintain a healthy weight. It also helps you to relieve stress, sleep better, feel fitter, have stronger bones and is an opportunity to interact with your family and friends and meet new people.

The National Physical Activity Guidelines for Australian Adults recommend:

- Think of movement as an opportunity, not an inconvenience.
- Be active every day in as many ways as you can.
- Engage in at least 30 minutes of moderate-intensity physical activity on most, preferably all, days of the week.
- Do muscle strengthening activities on at least 2 days per week
- Break up long periods of sitting as often as possible, and
- If possible, also enjoy some regular, vigorous activity for extra health and fitness.

### Step 1 – Start small

Doing any physical activity is better than doing none. If you are new to exercise, start off by doing small sessions of your chosen activity – just 10-minute bouts are enough to gain benefit. Gradually, as your fitness improves, increase this to 30-60 minutes.

#### Step 2 - Move more

Adults are recommended to be active on most, preferably all, days of the week. Exercise done consistently throughout the week helps to improve the body's ability to use glucose for energy. Research shows this effect only lasts for 24-72 hours though, so we need to do it regularly!



activity.

Which is your preferred exercise intensity level?

- Moderate intensity exercise If you are "lightly puffing" and you can hold a short conversation – you're exercising at a moderate intensity. The guidelines recommend you do between 150-300 minutes of moderate intensity exercise each week.
- Vigorous intensity exercise You would be short of breath but able to speak up to
  one sentence if you're doing vigorous intensity exercise, which is a little more difficult
  to sustain than moderate intensity exercise. The guidelines recommend you
  undertake between 75-150 minutes of vigorous intensity exercise each week, if you
  are able.

Why not mix it up? Try doing both moderate and vigorous activity each week to make up the recommended amount and to keep it interesting!

Remember, it's not just what exercise we do – but how we do it that will help improve our health. Exercise that is too light may not give you the recommended health benefits while exercise that is too hard can place you at risk of over-training and injury.

## Step 4 – Include resistance activities

Undertake muscle strengthening activities on at least 2 days each week. Strengthening activities include anything that requires your body to move against a weight or gravity. This would include activities such as lifting tins of food, repeated sitting and standing from a chair or seated leg raises.

## Step 5 – Stand, don't sit

Minimise the amount of time spent in prolonged sitting. Break up long periods of sitting as often as possible. Meet a friend for a walking date rather than a coffee, stand on public transport rather than sit or ask whether your workplace can provide standing workstations.

Here are some suggestions for you to discuss with your doctor:

- Walking
- Swimming
- Cycling/ exercise bike
- Dancing
- Gardening



- Tai Chi
- Water aerobics

Increasing your general physical activity is also helpful, e.g. taking the stairs instead of the lift, moving during the ad breaks of your favourite TV program, completing housework, and gardening. Avoid watching too much TV or sitting at the computer for a long time.

## Exercise advice for people with type I diabetes

Regular exercise is an important part of your diabetes management. It will help your insulin to work more efficiently and assist with your blood glucose management. However, if you have fluctuating or high blood glucose levels (i.e. fasting blood glucose levels greater than 14 mmol/L and urinary ketones), it is best to avoid exercise until your blood glucose has settled. Exercise in these circumstances can actually elevate blood glucose and increase ketone production.

It may be necessary to reduce your insulin dose prior to exercise, depending on the intensity and duration. Insulin adjustment will vary with each individual so it is important to discuss appropriate adjustments with your doctor or Credentialled Diabetes Educator.

You may also require extra <u>carbohydrate</u> before, during and after exercise. Discuss adjusting carbohydrate intake with your doctor or dietitian.





Diabetes Australia administers the National Diabetes Services Scheme (NDSS), an initiative of the Australian Government. Find out more about the NDSS at ndss.com.au

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We acknowledge the Traditional Custodians of the lands on which we work and live, and we pay our respects to all Elders past and present.

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