Diabetes quick guides

PHYSICAL ACTIVITY

Physical activity and exercise with diabetes

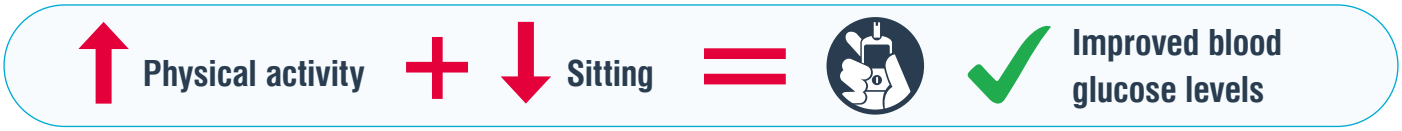
Physical activity and exercise

Physical activity includes all movement that increases energy use. Exercise is a specific type of physical activity that is structured and designed to improve fitness.

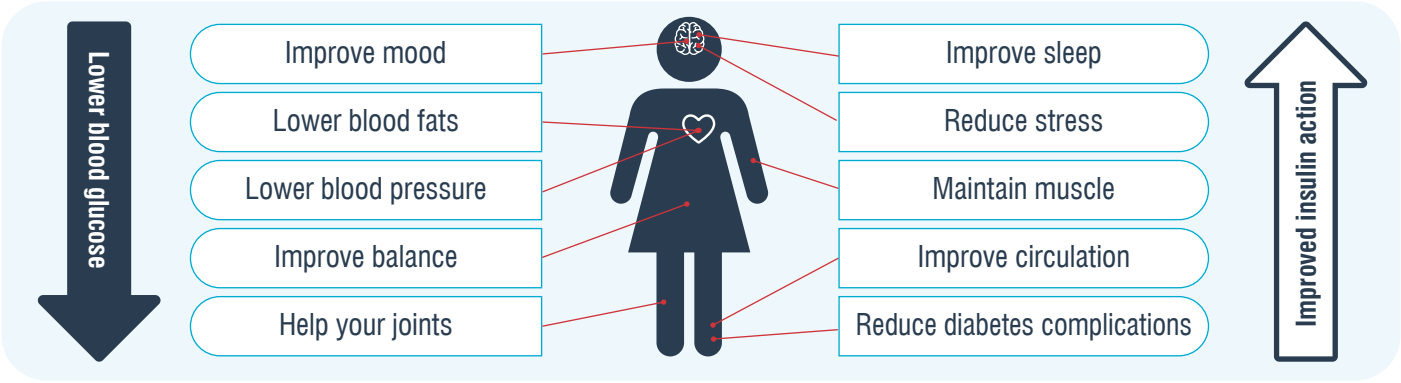
Diabetes and physical activity

Moving more *and* sitting less can lower your overall blood glucose levels and improve your health.

Benefits of regular activity



Regular physical activity or exercise, and spending less time sitting each day can:



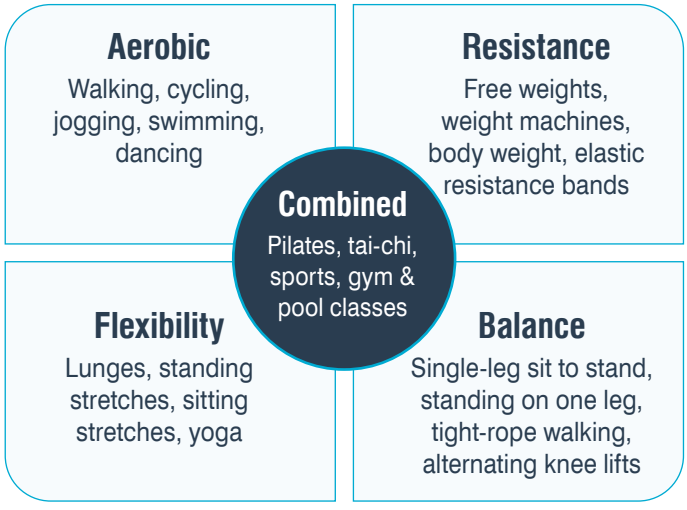
Types of physical activity

There is not one type of activity that is best for everyone with diabetes. Find what works for you.

Physical activity can be **planned** or **unplanned** (sometimes called *incidental activity*).

Planned activity includes **aerobic** ('cardio'), **resistance** (strength training), **flexibility**, and **balance** exercises.

Unplanned or incidental physical activity can include any extra movement in your day, such as gardening or household tasks, walking or cycling instead of driving, taking the stairs, lugging groceries into the house, washing the car, or splitting wood.



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How hard, how often and how long?

The **intensity** of physical activity is how hard you find it on a scale of 1 to 10.

Breathing:	Normal	Small increase	Increased	Heavy and rapid
Talking:	Normal	Talk, sing sentence	Talk, not sing	Only a few words

Any amount of activity each day is beneficial. Start slow and build up the amount you are active every day. Break up long periods of sitting and introduce unplanned or incidental activities. Then you can progress, if safe to do so, to planned exercises that you enjoy such as golf, swimming or a gym class.

Over time, aim to incorporate a range of activities, building up to the following recommendations:

Day	Time per week	Type of activity	Example activity
30 minutes every day	210 minutes	Moderate aerobic	Walking
40-45 minutes 3 days/week	125 minutes	Vigorous aerobic	Jogging, cycling, swimming
2-3 sessions per week	Variable - up to 90 minutes	Resistance training	Gym program or class, body weight exercises, resistance bands
2 sessions per week	Variable	Flexibility and balance	Yoga, Pilates, stretching

Try to have no more than two days in a row without physical activity. Always break up long periods of sitting by standing and moving and stretching.

Who can help?

If you have not exercised for a while, it is important to **check with your GP before you start**.

If you are taking insulin, see a **diabetes educator** or your **endocrinologist** (if you see one) to make a plan to avoid hypos or low blood glucose levels during and after exercise. An **accredited exercise physiologist** (AEP) or **physiotherapist** can assess your current level of ability, help you set goals, and tailor a program to suit your needs.

Find an Accredited Exercise Professional in your area **here**

Monitoring blood glucose levels and exercise

If you are at risk of hypoglycaemia (**hypo**) or a low blood glucose level (BGL), especially if you are injecting **insulin** or taking a **sulphonylurea** (e.g. Diamicron®, Amaryl® ***see*** ■ ***Medications for type 2 diabetes***) do extra BGL checks with any extra physical activity or exercise.

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Exercise plan

Fill in this plan with your GP, exercise physiologist, physiotherapist, or diabetes health professional.

Name: _____

Date: _____ Review date: _____

Set two or more SMART goals

	Unplanned activity	Specific & Measurable	Attainable & Relevant	Time-bound
	e.g. take the stairs at work	2 flights 3 days	Safe for me, will improve my fitness	Achieve by December
1.				
2.				
3.				
4.				
	Planned exercise			
	e.g. Sign up for Beat It program/join a gym class	2 x 30 minute sessions per week	Local, working in a group, tailored to my needs	8-week program
1.				
2.				
3.				
4.				

When you exercise

- Keep hydrated before and after activity.
- Wear supportive shoes and well-fitted socks as well as comfy clothes that you can move in.
- Ensure you are doing something that you feel safe and enjoy doing.
- It might help to exercise with a partner or support person.

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When is it not safe to exercise?

Do not exercise if:	☐ You are unwell or injured ☐ Your BGLs have been higher than 15 mmol/L for 6 hours or longer ☐ You have been advised not to do so by your GP	☐ You have had a recent hypo, or are at risk of a hypo (e.g. your sensor glucose level is trending down) ☐ You have positive (>0.6mmol/L) blood ketones, or positive urinary ketones

Guide to monitoring and insulin management for moderate or vigorous exercise

To be completed by diabetes health professional (keep copy or take photo on your phone)

- Have a target BGL range prior to starting exercise (e.g. 7 – 10mmol/L).
- Have a plan to reduce your insulin dose prior to exercise, and sometimes after exercise.
- Make sure you have healthy carbohydrate snacks and hypo treatment available.
- Know when it is not safe to exercise.

Date: _____ Review date: _____

	Before exercise	During exercise	After exercise
Blood glucose or sensor glucose check	Target: _____ Treat if less than: Treatment (type and grams):	Target: _____ Treat if less than: Treatment:	Target: _____ Treat if less than: Treatment:
Premix or basal insulin dose Type:	Morning dose:		Evening dose:
Bolus dose Type:			

For people with **type 1 diabetes**, see the Baker IDI factsheet Managing physical activity and type 1 diabetes **here**, or visit baker.edu.au/health-hub/fact-sheets

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Hypoglycaemia (low blood glucose levels)

If you are taking a sulphonylurea tablet or insulin, your risk of a low glucose or 'hypo' is greater during and after extra physical activity.

Some resistance exercise, such sprinting or weights and other strengthening, can increase blood glucose levels. If you are at risk of hypo try to break up aerobic (cardio) exercise with some resistance exercises. High intensity interval training, for example, may reduce your risk of hypo.

Keep your glucose monitor and hypo treatment with you at all times.

Treat a hypo immediately according to your hypo management plan.

(*see* ■ *Hypo*)

Hyperglycaemia (high blood glucose levels)

It may be unsafe to exercise if your BGLs are high (above 15mmol/L for 6 hours or longer). Hyperglycaemia can lead to dehydration and other serious complications if not treated.

If you have type 1 diabetes, or are taking a medication called an SGLT2 inhibitor (Jardiance®, Forxiga®, Steglatro®), check for blood ketones if your BGL is above 15mmol/L. Do not exercise if you have positive blood or urinary ketones.

(*see* ■ *Sick day management*)

Summary

- Move more, sit less
- Set SMART goals
- Start slow, get support
- Be safe (manage or avoid hypos)
- Have fun

Further resources

NDSS (National Diabetes Services Scheme)

Contact the NDSS on **1800 637 700** to order printed copies, or visit **ndss.com.au/about-diabetes/resources**

- Physical activity (fact sheet)
- Beat it group exercise program

To find program near you visit:

- Home – Custom Portal (ndss.com.au)

Heart Foundation

- Physical activity action plan
- Exercises to do at home
- Personal walking plan

Next steps

- ■ Hyperglycaemia & sick day management
- ■ Hypoglycaemia management
- ■ Insulin – Parts 1 & 2

Need help?
Phone 6215 9000
or visit diabetestas.org.au

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