

# Diabetes *mellitus* and physical exercise

Physical exercise is key to keeping type 1 and 2 diabetes *mellitus* under control, delaying the complications and improving your quality of life. It also helps you to take lower doses of certain medications, to get your weight, blood pressure and cholesterol back to normal, to improve your physical endurance and to feel better physically and psychologically.

## How much exercise should I do?

**Exercise regularly.** Adults should aim at getting at least **30 minutes' moderately intense aerobic exercise 5 days a week.** Try not to go 2 consecutive days without exercising.



## What type of exercise can I do?

Walking is a good option. Or try walking the dog, Nordic walking, cross-country skiing, keep fit classes, water aerobics, swimming, gardening, mushroom picking, *sardana* dancing or cycling.

If you're not in good shape physically it's better not to take part in races or activities that are very demanding, or in high-risk sports in case you lose consciousness (like mountaineering or diving), contact sports (like martial arts) or those involving explosive strength (like weightlifting). The **most suitable intensity** is when you can keep up a conversation without difficulty while doing the activity.

Don't forget to stretch before and after exercising to warm up your body beforehand and to cool down afterwards.

If you have **retinopathy**, avoid activities where there's a risk of falling. If you have **kidney failure**, you should exercise gently to avoid reducing the volume of blood that reaches your kidneys.

A pedometer or a step-counting app on your mobile phone will record the steps you make. They help motivate you and enable you to find out how long you need to walk to control your blood sugar levels. A pulsometer records your heartbeat and is useful if you've had heart complications.

## Advice and suggestions

- **Feet:** Wear seamless cotton socks and comfortable, shock-absorbing covered footwear. In changing rooms and at swimming pools wear flip-flops, to avoid catching fungal infections, and afterwards wash your feet carefully with soap and water, dry them thoroughly and apply moisturiser to the skin.
- **Never exercise on an empty stomach** or after a big meal. Carry glucose in your pocket.
- **Drink water** during and after exercising to balance the water loss from sweating.
- Always carry **identification** indicating that you are a diabetic, with your name, phone number and address. Let the instructor of the class or activity know. Avoid places without mobile phone coverage or where rescue would be difficult in case of an accident.
- If you inject yourself with insulin you should take a supplement before the session to avoid hypoglycaemia. Glucagon should also be available in the sports centre's fridge. Inject the insulin in parts of the body that are used little during the exercise, so as to avoid rapid absorption that may cause hypoglycaemia (e.g. if you're walking, don't inject it in your legs, but your belly).

## Don't exercise if...

- You're dizzy or have a fever.
- If your blood glucose level is not stabilised.
- If before exercising your blood sugar is over 250 mg/dl or under 130 mg/dl.
- If you have ketones in your urine.