

Why exercise is necessary

Exercise is important to us all for our health. If you have diabetes it is especially important, as it can help achieve control of blood glucose levels and weight.

Whether or not you have diabetes you will experience the same benefits of improved fitness with regular exercise: flexibility, muscle strength, and heart and lungs which work more efficiently. Exercise can make you feel better, reduce stress and help you lose weight if you are overweight.

As well as these benefits, if you have diabetes there are additional advantages:

1. Exercise improves the body's ability to use glucose.
2. Regular exercise lowers blood pressure and decreases the risk of developing heart disease which is a major threat to people with diabetes.
3. Regular exercise can make the action of insulin on fat and muscle cells more efficient.

Exercise safely

With a few precautions there is no reason why you should not enjoy the benefits of exercise.

1. Talk to a doctor or nurse before starting a new programme of exercise.
2. Always start slowly and gradually build up your endurance.



Remember

- **Exercise improves the blood glucose lowering effect of injected insulin. Be sure to eat enough carbohydrate to compensate for this.**
- **Muscle activity will force insulin from your injection site into your blood stream faster than usual. Avoid injecting insulin into your legs or arms if you will be exercising these (your stomach is a good alternative).**
- **Your muscles will use up more sugar and at a faster rate than normal when you are exercising. To avoid developing a hypo (very low blood glucose level) it is important to eat more carbohydrate before and after exercising.**

The amount of food needed varies from person to person so it is very important to monitor blood glucose levels and adopt the following general guidelines:

Increased carbohydrate intake is best achieved by taking complex carbohydrate before exercising, e.g. one thickish slice of bread for each 20 minutes of moderately vigorous activity.

OR

Quickly absorbing carbohydrate can be taken during activity, e.g. half a can of ordinary lemonade.

For prolonged or strenuous activity extra carbohydrate will be needed after an hour or so. If you are playing a football or hockey match, have some extra carbohydrate at half time and keep glucose sweets in your pockets for emergencies. You may need some extra carbohydrate after exercising.

Your blood glucose level will continue to fall after exercise so test your blood glucose level immediately after exercising, then again about an hour later.

Do not exercise without increasing your carbohydrate intake or reducing your insulin dose.

Never exercise if your blood glucose levels are above 15 mmol/l (270mg/dl) or if you have ketones in your urine.

Type 2 diabetes

Exercise will help you manage your diabetes if your body is still producing some insulin, in other words, you have Type 2 (non insulin dependent) diabetes.

Exercise increases the body's sensitivity to insulin so that the muscles are able to use glucose more efficiently. Regular exercise will increase your metabolic rate while you are exercising, and afterwards. It can therefore help weight loss.

What type of exercise

For general fitness and blood glucose control choose aerobic exercise (with oxygen). This usually means exercise you can continue for a long time without running out of breath, e.g. walking, tennis, aerobics, aquatone, cycling, swimming, etc.

Anaerobic exercise (without oxygen) refers to activities performed at a high intensity for a short time, e.g. sprinting. Anaerobic exercise does not have the same beneficial effects of increasing weight loss, or helping blood glucose control, so it is not usually recommended.

Ready Steady Go!



1. Get your doctor's approval, especially if you are over 30, have had diabetes for over 10 years or have other health problems.
2. Drink plenty of water before, during and after exercise.
3. Test your blood glucose frequently so that you know how exercise affects your blood glucose level.
4. Try to make your life more active – use the stairs not the lift and walk instead of driving for short trips.
5. Moderate exercise for 20-30 minutes is much better for you than short sharp bursts of activity.

Special Care

Special care is necessary in certain sports where the risk of hypoglycaemia could put you in danger, especially if you cannot take glucose because of the situation you are in, e.g. scuba diving, solo sailing, hang gliding or mountaineering.

If you are thinking of any of these "risky" activities ask expert advice on the risks involved and how these can be minimised.

**MAKE SURE THERE IS ALWAYS
SOMEONE WITH YOU WHO KNOWS
HOW TO COPE WITH A HYPO AND
THAT THEY HAVE GLUCOSE TO DO SO**

Leaflets available from Hypoguard

- 1 What is Type 2 diabetes
- 2 What is Type 1 diabetes
- 3 Long-term complications of diabetes
- 4 Hypos, hypers and all that
- 5 Monitoring diabetes
- 6 Diabetes and exercise
- 7 Work and driving with diabetes
- 8 Smoking and alcohol with diabetes
- 9 On holiday with diabetes
- 10 Men and Women with diabetes

Please call the **Hypoguard Freephone Information Line: 0800 371 957** for further copies of this leaflet or other leaflets in the series.

Diabetes management made simple

Hypoguard have a range of blood glucose monitoring systems specifically designed to help people with diabetes manage their glucose levels in their homes. If you would like any information about them, please call the Hypoguard Freephone Information Line: **0800 371 957** 8am and 6pm, Monday to Friday or visit our web site at www.hypoguard.com

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Diabetes and Exercise

MANAGING DIABETES



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