

Diabetes

What is diabetes?

Diabetes occurs when the mechanism for converting glucose to energy no longer functions properly. Insulin, a hormone produced by the pancreas, is needed to convert glucose into energy. If the pancreas does not produce enough insulin, or if the body cannot utilise the insulin, diabetes occurs. This causes an abnormally high level of glucose in the blood, giving rise to a variety of symptoms. High glucose levels over several years can damage various parts of the body.

There are two different types of diabetes, type 1 and type 2. In type 1, usually diagnosed before the age of 40, there is complete or near-complete absence of insulin due to destruction of the insulin-producing cells. Insulin treatment is essential for survival and treatment is by insulin injections and diet. In type 2, the body still produces insulin but either there is not enough of it or it is not working properly. Treatment is either by diet alone or by tablets and diet and sometimes with insulin. In the past, type 2 was assumed to affect only people over the age of 40, but it is now affecting ever younger people.

Dietary recommendations

The diet advocated for people with diabetes is a healthy diet which is recommended for everyone. Specific dietary requirements may vary with age, weight and activity level. Your GP can refer you to a state registered dietitian who will give advice relevant for your own case.

The main points to remember

- Eat regular meals and snacks as necessary
- Include some starchy food at each meal
- Choose high fibre foods
- Eat plenty of fruit and vegetables every day
- Avoid saturated and hydrogenated fats
- Limit added sugar and sugary foods
- Limit salt
- Watch your weight

The following are more detailed suggestions for a day to day eating pattern:

Starchy foods

These are important energy-providing foods and should be included at each meal. They provide B vitamins and iron and can be a good source of fibre. Choose from wholegrain breakfast cereals, bread, pasta, rice and potatoes.

How to eat more fibre

A high fibre diet is important for diabetes. The soluble fibre in pulses such as peas, beans and lentils and in vegetables, fruit and oats is particularly good at controlling blood sugar levels. There is no fibre in animal products, so a vegan diet has a distinct advantage. When eating more fibre it is important to drink plenty of fluids.

Fruit and vegetables

Aim for a minimum of five portions of fruit and vegetables every day – a small glass of fruit juice counts as one portion, but should be taken with a meal a lot of fruit juice can make blood sugar levels rise too high. If you choose tinned fruit, buy it in natural juice rather than syrup. Only eat small amounts of dried fruit as it is a concentrated form of sugar.

Fat

Recommendations are to cut down on saturated fats, which are mainly found in animal foods such as meat, butter, lard and dairy products. Cutting down on fats in general helps with weight control, which in turn helps to control diabetes. If you use oil or fat, choose an unsaturated one such as olive or rapeseed oil. Choose spreads made with non-hydrogenated fats. Use less oil in cooking – grill, poach or boil rather than fry. Beware of hidden fats in pastry, biscuits and pre-cooked foods such as onion bhajis and vegan convenience foods such as sausages, pies and burgers.

How to reduce your sugar intake

It is important to avoid large amounts of sugar and sugary foods, but it is not necessary to avoid sugar altogether. As part of a high fibre meal, an occasional small portion of a dessert containing sugar will not cause a quick rise in blood sugar. High sugar foods are often low in fibre and high in fat and calories, so they do not help blood sugar control or weight maintenance. There are many lower sugar products which would be healthier choices.

Choose plain biscuits, reduced sugar or no added sugar jams, and sugar free puddings and desserts. Use fresh fruit for snacks. So long as your day to day eating pattern is healthy, the occasional celebration meal or small amount of chocolate or cake will do no harm.

Salt

Too much salt in the diet may increase blood pressure, which can contribute to heart disease and stroke. Most of the salt that we consume is in processed foods. Limit salty foods such as yeast extract, crisps, peanuts and soy sauce. Try to use less salt in cooking and at the table or use a low sodium alternative.

Alcohol

Alcohol can cause low blood sugar (hypoglycaemia), so don't drink on an empty stomach. Keep to sensible limits - no more than 2-3 units per day for a woman and no more than 3-4 units per day for a man. One unit is equivalent to half a pint of beer, a small glass of wine or a measure of spirits. Use sugar-free or slimline mixers.

The glycaemic index

The glycaemic index (GI) is a measure of how quickly or slowly carbohydrate foods are absorbed. Many health practitioners advocate a diet containing foods with a low GI because they are more slowly absorbed into the bloodstream, causing a smaller rise in blood glucose levels, thus helping to keep blood glucose levels steady. The majority of foods with a low glycaemic index are healthy foods: for example, porridge, muesli, beans and pulses, pasta, noodles, nuts and seeds, wholegrains, pitta bread, yam and sweet potato.

Exercise

To obtain the benefits, exercise needs to be carried out regularly. It will then help to control both your blood sugar levels and your weight. It is recommended that you take at least 30 minutes of brisk exercise five times a week, but check with your doctor before starting any exercise programme.

Also see our article ['Diabetes and the vegan diet'](#) (pdf) by Sandra Hood, Dietitian.

For further information on diabetes contact Diabetes UK www.diabetes.org.uk.