

Diabetes - Type 1

This Food Fact Sheet will look at Type 1 diabetes only. There is also a Fact sheet on Type 2 diabetes available at www.bda.uk.com/foodfacts

What is diabetes?

Diabetes is a condition where the body cannot properly use glucose for energy. Type 1 diabetes occurs when the body has stopped producing insulin. In Type 1 diabetes, the insulin has to be replaced either by daily injections or with insulin pump therapy. The aim of these insulin treatments is to have the best possible glucose control around your current lifestyle and daily activities.

Referral to a dietitian

When they are diagnosed with Type 1 diabetes, all children will be referred to a specialist paediatric diabetes team. Adults and young people should be referred to a diabetes specialist dietitian who works with a team including a doctor and diabetes specialist nurse. You should be offered referral to a structured diabetes education programme soon after diagnosis to learn more about diabetes, carbohydrate counting and lifestyle management. eg DAFNE, SEREN. You may also be offered an ongoing education programme.

The importance of good blood glucose control

Achieving good blood glucose control reduces the risk of complications in later life which can affect your eyes, kidneys, heart, feet, and sexual function. Diabetes control is measured by a blood test called HbA1c. The target for good control is less than 48 mmol/mol which reduces your risk of developing complications. In the short-term, good control will mean you have more energy, more restful sleep, improved physical performance and concentration, more stable moods and emotions and healthier skin and gums. Good glucose control is achieved by a combination of diet, insulin adjustment and a healthy lifestyle.

What can you eat?

Adults and children with Type 1 diabetes should eat a healthy diet, just the same as somebody without diabetes e.g. including fruit and vegetables, foods with



a low glycaemic index eg pulses, wholegrains and the right kinds and amount of fat. A dietitian will help support you to make healthy food choices. Children and young people's food choices should provide sufficient energy, including carbohydrate and nutrients for normal growth and development.

How does food affect your blood glucose level?

Food and drinks containing carbohydrate are digested to provide glucose. You need glucose for energy. A dietitian will help you to balance your food intake and insulin doses so that your blood glucose is maintained as close as possible to the normal range and you have fewer high (hyperglycaemia) or low (hypoglycaemia) blood glucose levels.

Which foods contain carbohydrate?

Examples of food containing carbohydrate include bread, rice, pasta, breakfast cereals, potatoes, biscuits, sweets, chocolate, jams and sugary drinks. Fruit and milk also contain carbohydrate as natural sugar. All types of carbohydrate will increase your blood glucose level.

Blood glucose targets

A normal blood glucose is between 3.5-8 mmol/l. But for people with diabetes the following are recommended. Some people may be given different targets depending on their age and lifestyle.

	On waking	Before meals	1.5 – 2hrs after meals	Before driving
Adults	5-7mmol/l	4-7 mmol/l	Less than 8 mmol/l	5 mmol/l or higher
Children	4-7mmol/l	4-7 mmol/l	Less than 5-9 mmol/l	n/a

How much your blood glucose goes up will depend on;

- The amount and type of carbohydrate in the food you eat or drink
- Your insulin doses, the type of insulin you have and when you take it
- Your daily activity levels as well as the exercise or sport you do

There is no 'right' amount of carbohydrate to eat each day. However, children should not restrict their carbohydrate intake. Your dietitian will be able to guide you on the type and amount of carbohydrate you need and when you need to eat it depending on your age, insulin regimen and lifestyle.

Carbohydrate counting

You should be offered education on carbohydrate counting to keep your blood glucose levels in the target range. You need to be able to balance the amount of insulin with the carbohydrate you eat. You can either

- eat similar amounts of carbohydrate every day or
- learn to adjust your insulin dose to match the amount of carbohydrate you wish to eat

Your diabetes team will help you decide which approach is best for you.

Physical activity

Being active is an important part of a healthy lifestyle and can help prevent heart disease, maintain your weight and make you feel good. However, it can be challenging to balance your food, insulin and exercise to keep your blood glucose in the normal range. Your diabetes team will work with you help you to achieve this balance.

Diabetic foods

Foods labelled as 'diabetic' such as sweets, cakes and biscuits offer no special benefits and there is no need to have them. They are often high in calories, may increase your blood glucose level and have a laxative effect! Ordinary products, eaten as part of a healthy diet, are suitable.

Alcohol

There is no reason why people with diabetes cannot drink alcohol, unless you have been advised not to or you are under age. The safe limits for alcohol are 2-3 units/day (max 14 units/week). Alcohol can lower your blood glucose and hypoglycaemia may develop up to 16 hours after you have stopped drinking.

Therefore, don't drink on an empty stomach and if drinking in the evening, have a carbohydrate snack before you go to bed. Do not miss breakfast and make sure it contains carbohydrate e.g. cereal or toast.

Alcohol Units Guide

Alcohol	Serving size	Alcohol units
Wine	1 glass (175ml)	2
Beer/lager/ cider (normal strength 3-4 %)	1 pint	2
Spirits e.g. vodka, gin, whisky	35 ml	1.5
Alcopops	1 bottle	1.5

Summary

People with Type 1 diabetes should eat a healthy balanced diet. Speak to your diabetes team about learning how to balance your insulin with your food intake in order to achieve good diabetes control . It is important to be active; aim to do some physical activity every day. Good diabetes control will help you lead a full and active life and prevent other health complications.

Further information: Food Fact Sheets on other topics including Type 2 Diabetes, Healthy Eating, Healthy Eating for Children, Carbohydrates and Alcohol are available at www.bda.uk.com/foodfacts



Diabetes UK
0845 1202 960 diabetes.org.uk
Juvenile Diabetes Research Foundation
020 7713 2030 jdrf.org.uk

Structured diabetes education programmes
DAFNE www.dafne.uk.com
SEREN www.CYPdiabetesnetwork.nhs.uk

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This Food Fact Sheet and others are available to download free of charge at www.bda.uk.com/foodfacts

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The information sources used to develop this fact sheet are available at www.bda.uk.com/foodfacts

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