

## 2 | Diet and lifestyle



Type 1 diabetes is treated with a combination of diet and insulin. In this chapter we describe the dietary and lifestyle advice you need to control your diabetes. The next chapter will address the question of how to use insulin to keep the blood glucose normal.

Most people with diabetes, and especially parents who have a child with diabetes, long for a miracle cure. This explains why we have been sent so many questions about unorthodox methods of treatment. We have tried to answer these questions in a sensitive manner but there is no escaping the fact that, for a child, insulin is the only ‘miracle cure’ and that is how it was regarded when it was discovered in 1921.

Whether you have Type 1 or Type 2 diabetes, the most important thing is to access good diabetes education. In the past, people were often given instructions about what to eat without any explanation as to why it was important. Not surprisingly, they did not always follow the advice. The importance of structured education has been

recognised in the Diabetes National Service Framework (NSF, see p. 124) and education programmes have been developed for both Type 1 and Type 2 diabetes. An example of structured education for Type 1 diabetes is the DAFNE programme (Dose Adjustment For Normal Eating) and you can read about this in the section *Why monitor?* in Chapter 4.

## DIABETES EDUCATION

*My doctor has just told me that I have Type 1 diabetes and I have started insulin with the help of the specialist nurse. I am very shocked and confused and feel that my life has been turned upside down. There seems to be such a lot to learn and I wonder how I am going to cope. My doctor has given me the phone number of Diabetes UK so I can get more information but I would really like to talk to someone with diabetes. Can you help me?*

Most people who are told they have diabetes feel very upset at the news. We agree that a phone call to Diabetes UK helpline is a good idea; it has gone to a lot of trouble to produce useful information for people with newly diagnosed diabetes. However, the most important thing they can do is put you in touch with the local voluntary group of Diabetes UK. Naturally these vary in their level of activity, but in some areas are very well organised to provide support and information to new members. This will give you the opportunity to speak to other people who are in the same boat.

In the first few days, the nurse who showed you how to take insulin will give you the basic information you need to keep safe. Depending on how you get on, you will gradually take on board more complex information so that in time, you will be able to cope with any situation which might arise. It is essential to spend time with a dietitian who is experienced in diabetes because understanding the relationship between food and insulin is a key to good

control. Once you have adjusted to life with diabetes, you should be offered an education programme, such as DAFNE (see p. 91).

## DIET

Knowing about the right type of food and the amount that you can eat is important. Most of the questions we have included help explain the general principles but people's diets are very individual, so do ask for help and further explanations from your own diabetes advisor or dietitian. It is particularly important to have an opportunity to review regularly what you are doing about diet. If you are looking for new ideas for meals, there are now many helpful recipe books written especially for people with diabetes, most of which are available from Diabetes UK. A list of current titles can be found in Appendix 1.

*I have had Type 1 diabetes for four years and am about to leave school. I don't eat a lot but cannot lose weight. Why is this?*

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**O**ur bodies need energy from food and drink in order to function. Extra energy is required for any additional activity, such as walking, housework, climbing stairs or gardening. This energy is measured in calories or joules (see below).

To maintain a stable weight our energy intake (from food and drink) has to equal our energy output (for our daily activities.)

If your weight is increasing, your energy intake is exceeding your energy output, and the extra energy is stored as body fat. Even small differences in this balance will, in time, make a difference. An extra 100 calories (e.g. two small plain biscuits or one chocolate digestive) a day will amount to over 4.5 kg (over 10 lbs) weight gain in a year. Keeping a record of your food and drink intake can help you identify where you can make gradual changes, as your aim would be to reduce your food intake or increase your activity level, or ideally both.

In the UK we normally refer to calories, but some countries refer to joules: 1 calorie is equal to 4.2 joules. Strictly speaking, the proper term is kilocalories (often abbreviated to kCal) and kilojoules (abbreviated to kjoules or kJ). These are the units on the nutritional information labels on food packaging. Most people use the familiar term 'calorie' when they mean kilocalories, so this is what we have chosen to use in this book.

When you are taking insulin, it can be difficult to lose weight because unless you reduce your insulin at the same time as you cut back on food, you may be at risk of a hypo. The only way of correcting a hypo is to take extra carbohydrate, which defeats the object. You may need advice from your dietitian or specialist nurse on how to cut back on food and insulin.

*There seem to be many foods offered in the supermarkets now labelled 'diabetic foods'. Should I be eating these rather than the ordinary types?*

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'Diabetic foods' do not offer any health benefits. They are expensive and are often no lower in fats or calories than ordinary food. They can still affect your blood glucose and can cause bowel upset.

In place of ordinary sugar these foods are sweetened with a substitute, often fructose or sorbitol, both of which provide calories and can have a laxative effect.

Today the recommended food plan for people with diabetes includes some sweetened foods, especially if you choose products with a higher fibre and lower fat content. Depending on your glucose control and your weight, you should be able to eat small amounts of ordinary sweet foods, such as biscuits, cakes or sweets but you may need to take extra insulin. These should form part of your food plan and should preferably be eaten at the end of a meal. There is no need for you to buy so-called diabetic foods to give yourself a treat.

The only 'special' foods we recommend for people with diabetes are the ones labelled as 'diet' or 'low calorie', e.g. sugar-free soft drinks, reduced sugar preserves, diet yoghurts and sugar-free jellies.

These are not marketed specifically at people with diabetes, but for anyone who wants to keep their weight under control or avoid eating too much sugar. They are usually sweetened with intense sweeteners such as saccharin or aspartame which are virtually calorie-free. These artificial sweeteners can also be used to replace sugar in your tea or coffee, and are available in granular form to sprinkle on breakfast cereal, or for use in baking.

*Where or how do I find out about the carbohydrate or calorie content of foods?*

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There are many publications giving this information which are available in newsagents and bookshops. If you have access to the internet then a search will give you a great number of options. If you do not have access to the internet, your local library or Diabetes UK Careline may be able to help.

Another source of information is the nutritional labels on the foods you buy. If you find food labels difficult to understand then your dietitian will be able to explain how to use this information. The following tables give some examples of what you may see on labels.

People often ask for figures of how much to look for on a label and Table 2.3 can provide some *guidelines*. It must be noted that the figures are per 100 g of a food and each food choice should be taken in context of how much of it you eat and how often you eat it. No food needs to be excluded from an eating plan, but you should try to make sensible choices.

*How does a person with diabetes get an appointment with a dietitian? Will there be one at my doctor's?*

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As diet plays a crucial part in the management of diabetes, it is important that you get sound expert dietary advice from a State Registered Dietitian. This is part of the recommended standard of care as detailed in the Diabetes UK booklet *What Diabetes Care to Expect* (see Appendix 1).

**Table 2.1** General nutritional information on food labels

TYPICAL VALUES			
	Per 100 g	Per serving 200 g	What this means
<b>Energy</b>	232 kJ 55 kCal	464 kJ 110 kCal	Energy or calories from this food. Limiting total calories will help you lose weight
<b>Protein</b>	4.5 g	9 g	For body growth and repair. Most adults get more than they need
<b>Carbohydrate</b> <i>of which sugars</i>	8.9 g 7.8 g	17.8 g 15.6 g	Total carbohydrate includes both starch and sugar. Both will affect blood glucose. Sugars include natural (fruit and milk) sugars and added sugar
<b>Fat</b> <i>of which saturates</i>	0.1 g 0.1 g	0.2 g 0.2 g	Three main types: monounsaturates, polyunsaturates, saturates; all contribute high energy. Aim to eat fewer fats – especially saturates
<b>Fibre</b>	0.1 g	0.2 g	Important for good bowel function
<b>Sodium</b>	0.1 g	0.2 g	High levels associated with high blood pressure

The availability of dietitians varies across the country but most diabetes centres have a dietitian as part of their diabetes team. If you attend a hospital diabetes centre then you should be able to make an appointment with the dietitian. There are an increasing number of GP practices running local diabetes clinics and they should be able to arrange an appointment with a dietitian as part of your diabetes care.

**Table 2.2** Guideline Daily Amounts

Each day	Women	Men
Calories	Up to 2000	Up to 2500
Fat	Up to 70 g	Up to 95 g
Sugars	Up to 50 g	Up to 70 g
Salt	No more than 6 g	No more than 6 g

**Table 2.3** Further guidance on food labels

This is <b>HIGH</b>	This is <b>LOW</b>
Per 100 g	Per 100 g
20 g fat or more	3 g fat or less
5 g saturated fat or more	1 g saturated fat or less
0.5 g sodium or more (multiply by 2.5 = salt)	0.1 g sodium (multiply by 2.5 = salt)
10 g sugar or more	2 g sugar or less

*I have a number of queries about my diet. Can you tell me how I can get advice about it?*

If you have access to the internet you might try the Diabetes UK website which provides a huge amount of information which may help answer your dietary queries ([www.diabetes.org.uk](http://www.diabetes.org.uk)). It also provides a telephone service called Diabetes Careline UK: 0845 120 2960.

Good advice on diet is essential in the proper care of diabetes and it should be tailored to individual requirements. You may therefore prefer to arrange to see a State Registered Dietitian through your hospital or your GP. Most hospitals have a State Registered Dietitian attached to the diabetes clinic, and you could arrange to see them at