

Eating well with Type 2 diabetes



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Diabetes UK recommends that everyone with diabetes should see a registered dietitian at diagnosis, and then have regular reviews for specific advice on their eating habits.

Introduction

This booklet provides general guidance about food choices if you have Type 2 diabetes. Balancing your diet when you have Type 2 diabetes can be challenging but it is important. Making sensible food choices and adapting your eating habits will help you manage your diabetes and help protect your long-term health. Whether you have the condition, or know or care for somebody with Type 2 diabetes, we hope this information will be helpful.

Taking steps to balance your diet, as outlined in this booklet, will help you control your blood glucose levels, blood fats including cholesterol, and blood pressure. This booklet is also a good starting point if you need to think about losing weight.

You're likely to have lots of questions about your diet and we've tried to answer those most commonly asked in this leaflet. A registered dietitian will be able to answer any further questions.

Your diet and diabetes

What is Type 2 diabetes?

Diabetes is a common, life-long condition where the amount of glucose (sugar) in the blood is too high as it cannot be used properly. Glucose comes from the digestion of foods containing carbohydrate and from the liver which makes glucose.

Insulin is vital for life. It is a hormone produced by the pancreas, that helps the glucose to enter the cells where it is used as fuel by the body. Type 2 diabetes develops when the body can still make some insulin, but not enough, or when the insulin that is produced does not work properly (known as insulin resistance).

Good blood glucose control is important in the management of diabetes. Because of the link between eating carbohydrate and blood glucose levels, we have answered some common questions about carbohydrate on the following pages.

What is carbohydrate?

Carbohydrate can be classified in a number of different ways but essentially there are two main types, starchy carbohydrates and sugars.

Starchy carbohydrates include foods like bread, pasta, chapatis, potatoes, yam, noodles, rice and cereals.

Sugars include table sugar (eg, caster, white, brown), and can also be found in fruit (fructose), and some dairy foods (lactose).

They can often be identified on food labels as those ingredients ending with -ose.

Why is carbohydrate important?

All carbohydrate is converted into glucose and will have an impact on blood glucose levels. As this is the case, some people with diabetes wonder if it would be better not to have any carbohydrate in their diet to keep their glucose levels under control. This is not recommended as:

- glucose from carbohydrate is essential to the body, especially the brain
- high fibre carbohydrates, such as wholegrains and fruit, also play an important role in the health of the gut
- some carbohydrates may help you to feel fuller for longer after eating.

How much do I need?

The actual amount of carbohydrate that the body needs varies depending on your age, weight and activity levels, but it should make up about half of what you eat and drink. For good health most of this should be from starchy carbohydrate, fruits and some dairy foods, with no more than one fifth of your total carbohydrate to come from added sugar or table sugar.

(See pages 11–13 for a clearer guide.)

Ten steps to eating well

1 Eat three meals a day. Avoid skipping meals and space out your breakfast, lunch and evening meal over the day. This will not only help control your appetite but will also help control your blood glucose levels.

2 At each meal include starchy carbohydrate foods such as bread, pasta, chapatis, potatoes, yam, noodles, rice and cereals. The amount of carbohydrate you eat is important to control your blood glucose levels. Especially try to include those that are more slowly absorbed (have a lower glycaemic index) as these won't affect your blood glucose levels as much. Better choices include: pasta, basmati or easy cook rice, grainy breads such as granary, pumpernickel and rye, new potatoes, sweet potato and yam, porridge oats, All-Bran and natural muesli. The high fibre varieties of starchy foods will also help to maintain the health of your digestive system and prevent problems such as constipation.



3 Cut down on the fat you eat, particularly saturated fats, as a low fat diet benefits health. Choose unsaturated fats or oils, especially monounsaturated fat (eg olive oil and rapeseed oil) as these types of fats are better for your heart. As fat is the greatest source of calories, eating less fat will help you to lose weight if you need to. To cut down on the fat you eat, here are some tips:

- Use less saturated fat by having less butter, margarine and cheese.
- Choose lean meat and fish as low fat alternatives to fatty meats.
- Choose lower fat dairy foods such as skimmed or semi-skimmed milk, low fat or diet yogurts, reduced fat cheese and lower fat spreads.

- Grill, steam or oven bake instead of frying or cooking with oil or other fats.
- Watch out for creamy sauces and dressings and use tomato-based sauces instead.

4 Eat more fruit and vegetables. Aim for at least five portions a day to provide you with vitamins, minerals and fibre to help you to balance your overall diet. One portion is, for example, a banana or apple, a handful of grapes, a tablespoon of dried fruit, a small glass of fruit juice or fruit smoothie, three heaped tablespoons of vegetables or a cereal bowl of salad.



5 Include more beans and lentils such as kidney beans, butter beans, chickpeas or red and green lentils. These have less of an effect on your blood glucose levels and may help to control your blood fats. Try adding them to stews, casseroles and soups, or to a salad.



6 Aim for at least two portions of oily fish a week. Examples include mackerel, sardines, salmon and pilchards. Oily fish contains a type of polyunsaturated fat called omega 3 which helps protect against heart disease.



7 Limit sugar and sugary foods. This does not mean you need to eat a sugar-free diet. Sugar can be used in foods and in baking as part of a healthy diet. Using sugar-free, no added sugar or diet fizzy drinks/squashes, instead of sugary versions can be an easy way to reduce the sugar in your diet.

8 Reduce salt in your diet to 6g or less a day – more than this can raise your blood pressure, which can lead to stroke and heart disease. Limit the amount of processed foods you eat (as these are usually high in salt) and try flavouring foods with herbs and spices instead of salt.

9 Drink alcohol in moderation only – that's a maximum of 2 units of alcohol per day for a woman and 3 units per day for a man. For example, a single pub measure (25ml) of spirit is about 1 unit or half a pint of lager, ale, bitter or cider has 1-1 ½ units. Over the years the alcohol content of most drinks has gone up. A drink can now contain more units than you think – a small glass of wine (175ml) could contain as much as 2 units. Remember, alcohol contains empty calories so think about cutting back further if you are trying to lose weight. Never drink on an empty stomach, as alcohol can make hypoglycaemia (low blood glucose levels) more likely to occur when taking certain diabetes medication.

10 Don't use diabetic foods or drinks. They offer no benefit to people with diabetes. They will still affect your blood glucose levels, contain just as much fat and calories as the ordinary versions, can have a laxative effect and are expensive.



Your questions answered

Q Can I still have some sugar in my diet?

A Yes. Eating sugar doesn't cause diabetes and people with diabetes do not need to have a sugar-free diet. It's okay to have foods like chocolate and cakes occasionally alongside a healthy diet. Remember sugary foods provide empty calories.

Q I'd like to use a sweetener instead of sugar in my tea but I've heard that they aren't safe. Is this true?

A All sweeteners have to undergo rigorous safety tests before they can be sold in the UK. The government sets safe limits and surveys groups of individuals to see whether they are exceeding these limits. At the moment there is no evidence to suggest that the general public is exceeding these safe limits, but if you are at all concerned then you can minimise this risk by using a variety of sweeteners.

Q Is it true that I shouldn't eat bananas or grapes?

A No. All fruit is good for you. Eating more fruit can reduce the risk of heart disease, some cancers and some gut problems. Eat a variety of different fruit and vegetables for maximum benefit.

Q Does a smoothie count towards my fruit and veg target?

A Yes, a smoothie can be an easy way to notch up a portion of fruit. The good news is that if, for example, you put two whole pieces of fruit into a homemade smoothie then it can count as two portions. Remember that some smoothies contain added sugar, honey, yogurt or milk that can bump up the calories, fat or sugar content so check the ingredients label.

Q Can people with diabetes follow a vegetarian diet?

A Yes. Although, following a vegetarian diet does not necessarily mean a healthier diet. You still need to have a good balance of different foods. To make sure you are following a healthy balanced vegetarian diet contact The Vegetarian Society (details on page 22).

Q Is it ok for me to take a vitamin supplement now that I have diabetes?

A Diabetes UK does not recommend that people with diabetes take a supplement. If your diet is deficient in some nutrients then you may benefit from taking one, but this should be decided in conjunction with your doctor and/or dietitian. **(Note: Women with diabetes should take a supplement of 5mg of folic acid when planning pregnancy and continue to take it until the end of the 12th week of pregnancy. This dose of folic acid is only available on prescription.)**

Q I have several food allergies – how can I manage them now that I have diabetes?

A Diabetes UK recommends that everyone with diabetes sees a registered dietitian. This is particularly important since you have additional nutritional considerations. Your doctor can refer you to one who can give you specific personalised advice.

Q Does having diabetes mean I have to miss out on eating out?

A On special occasions, when eating out, you should be able to enjoy foods that may be higher in fat or sugar than your usual choices. The odd one or two high glucose readings shouldn't affect your long-term diabetes control or health. Talk to your healthcare team for guidance on how to adjust your medication.

Q What is a structured education course and how do I get on one?

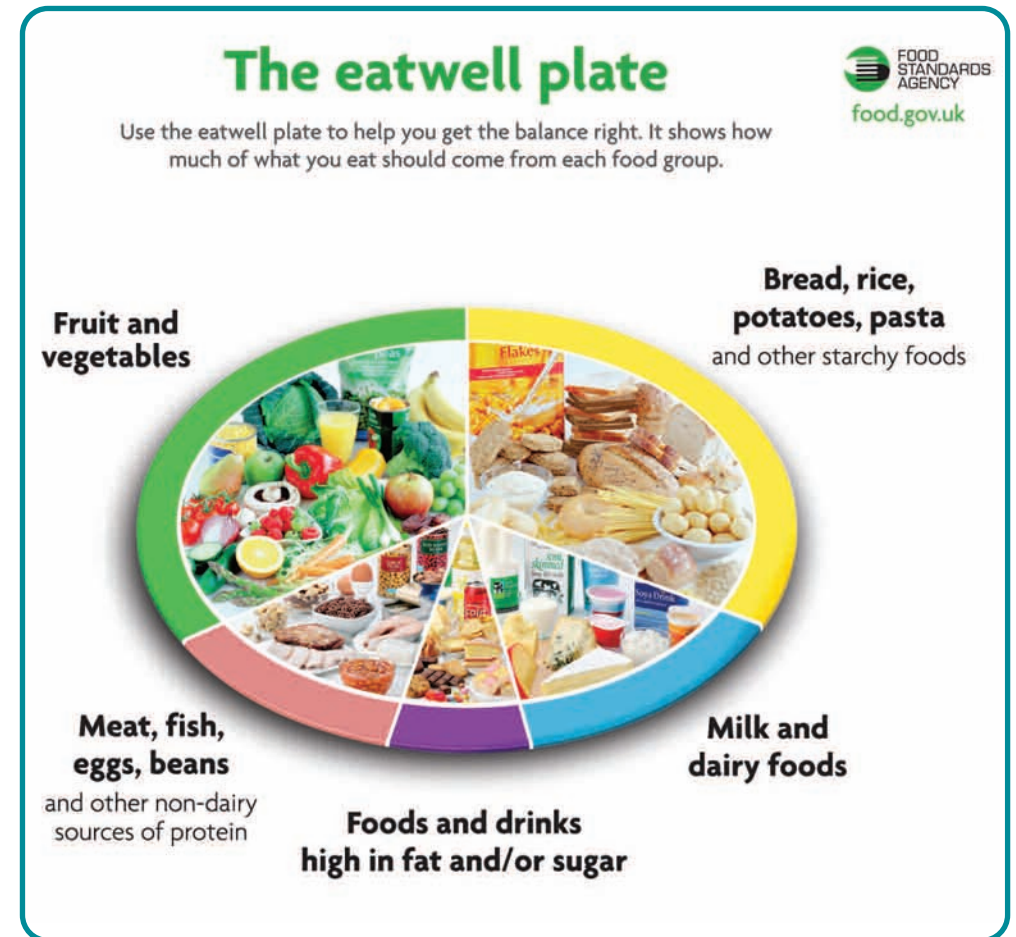
A NHS guidelines recommend that people with diabetes are offered patient education programmes known as 'structured education'. They usually contain lots of information on all aspects of diabetes – especially food. Ask your healthcare team about what's available in your area. For guidance on choosing a course that meets recognised criteria, more information can be found on the Diabetes UK website (see page 22).

Top tip...

Ask your doctor to refer you to a registered dietitian who can answer any other questions you may have.

A healthy balance

Foods can be divided into five main groups. To enjoy a balanced diet we need to eat foods from these groups in the right proportions.



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Getting the balance right

A good way to see if you are achieving the right balance is to think about how many portions of these foods you normally eat and see how it compares to the table below. Remember, everyone's nutritional needs are different and you may need more or less portions than those suggested.

Remember...
If you are trying to lose weight, the sizes of your portions may need to change. Check with your dietitian for more specific advice.

Food groups and what's in a portion	How many portions do you eat in a day?	How many portions should you eat in a day?
<p>Bread, cereals, rice, pasta and potatoes. One portion is equal to:</p> <ul style="list-style-type: none"> • 2–4 tbsp cereal • 1 slice of bread • half a small chapati • 2–3 crispbreads or crackers • 2–3 tbsp rice, pasta, cous-cous, noodles or mashed potato • 2 new potatoes or half a baked potato 		<p>7–14 Include starchy foods at all meals. Choose more slowly absorbed varieties whenever possible (see page 5).</p>
<p>Fruit and vegetables. One portion is equal to:</p> <ul style="list-style-type: none"> • a banana or apple • a slice of melon • 2 plums • a small glass of fruit juice or smoothie • a handful of grapes • a cereal bowl of salad • 3 heaped tbsp of vegetables 		<p>5 or more Choose a wide variety of foods from this group, including fresh, frozen, dried and tinned.</p>
<p>Meat, fish and alternatives. One portion is equal to:</p> <ul style="list-style-type: none"> • 2–3 oz (60-85g) meat, poultry or vegetarian alternative • 4–5 oz (120-140g) fish • 2 eggs • 2 tbsp nuts • 3 tbsp beans, lentils or dahl 		<p>2–3 Choose the lower fat alternatives whenever possible and eat more beans and pulses.</p>
<p>Milk and dairy foods. One portion is equal to:</p> <ul style="list-style-type: none"> • 1/3 pint milk • small pot yogurt • 2 tbsp cottage cheese • 1 1/2 oz cheese (40-45g, matchbox size) 		<p>3 Choose lower fat versions of milk and dairy foods.</p>
<p>Fatty and sugary foods. One portion is equal to:</p> <ul style="list-style-type: none"> • 2 tsp spread, butter, oil, salad dressing • half a bag of crisps • 1 mini chocolate bar • 2 tsp sugar, jam or honey • 1 scoop ice cream or 1 tbsp cream 		<p>0–4 Cut down on sugary and fatty foods.</p>

What's on your plate?

Watching what you eat when you have diabetes isn't about going on a diet. It's about making small, healthy changes to make your eating habits more balanced. The occasional one or two high fat, sugary or salty foods won't undo all your good work. Use the ideas on the following pages to plan your meals over the day.

Breakfast

Any breakfast cereals can be included in your diet. More filling choices, like porridge and All-Bran or fruit and fibre, will see you through the morning. Add semi-skimmed or skimmed milk, and try adding fruit to notch up a portion towards your five-a-day target early in the day. You can use any fruit and it can be fresh, frozen, stewed, canned or dried. A small glass of unsweetened fruit juice can count towards one of your five a day, but no matter how much you drink, fruit juice can only count as one portion in any one day. Some people find it affects blood glucose levels quickly so it's not the best choice for quenching your thirst.

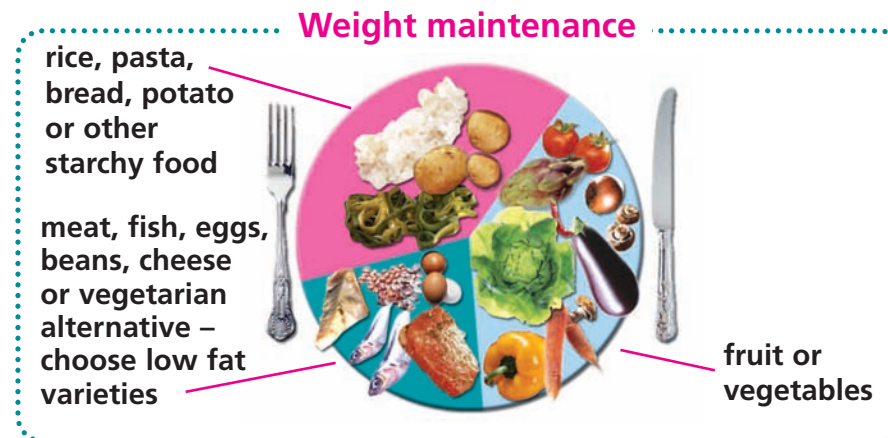
Bread, toast, bread muffins and crumpets are good alternatives to cereal. All are fine but wholegrain and granary versions are better for making you feel fuller for longer. Choose a low fat spread or one based on monounsaturated fat. Ordinary jams and marmalades or reduced sugar versions are okay too.

Lunch

Making time for lunch is good for us all especially for controlling your appetite as well as your diabetes. Lean meat, fish, eggs, beans, pulses, soups and salads are all good choices. Try these with granary bread, toast, pitta bread, jacket potatoes, pasta or rice. For a better balance try adding some extra salad and follow lunch with a piece of fruit or a low fat or diet yogurt.

Main meal

Try to have a balanced main meal every day. Using your plate as a rough guide will help you to eat foods in the recommended proportions (see below).



Think...

Being diagnosed with diabetes can be a great time to review your diet – why not take a chance and try new foods and recipes?

Managing your weight

Weight is a significant factor in the development and management of Type 2 diabetes – 80 per cent of people with diabetes are overweight at diagnosis. Losing weight can have a whole host of benefits for your health. And you probably don't need to lose as much as you think – losing between 5–10 per cent of your weight (that's 5–10kg if you are 100kg or about $\frac{3}{4}$ stone – 1 $\frac{1}{2}$ stones if you are 15 stone) has health benefits such as lowering blood fats, blood pressure and blood glucose levels. You don't have to reach an 'ideal' weight either – be realistic and aim to lose weight slowly over time (half to one kg (1–2 lbs) a week).

What's the best diet to follow?

It may seem obvious but losing weight depends upon eating less and being more active. Many people have tried a variety of diets and it is quite normal for it to take a number of attempts before the weight comes off and more importantly stays off. Fad diets, which promise a quick fix or are over restrictive, offer no benefit in the long-term. Steer clear of diets that cut out food groups such as carbohydrate-free diets too. It's better to set realistic, achievable targets that fit with a healthy balanced diet.

Where do I start?

1. Keep a food diary – noting what, how much and when you eat is the first step to being food aware.
2. Eat three meals a day.
3. Eat plenty of fruit.
4. Reduce your portions.
5. Cut down on snacks or replace them with healthier options like fruit.

6. Plan your meals so that you are less inclined to rely on old favourites that may be high in fat.
7. Be more active.
8. Become weight aware. Check your weight weekly for an insight into how things are going.
9. Think about joining a support group – ask your healthcare team about ones in your area.
10. Fill half of your plate at your main meal with vegetables.

How can I find out more?

Getting help with finding the right treatment option for you and your weight is important. Your GP, practice nurse or dietitian can work through this with you. You may also find it helpful to refer to Diabetes UK's publication about weight management called *Weight creeping up on you?* (see page 21).

What changes to my medication may I need to make?

Your diabetes medication should correspond with the food you eat and the activity you do. As you eat less, become more active and lose weight, you may need your diabetes medication dose reduced. Talk to your doctor or nurse for advice about how to adjust your medication.

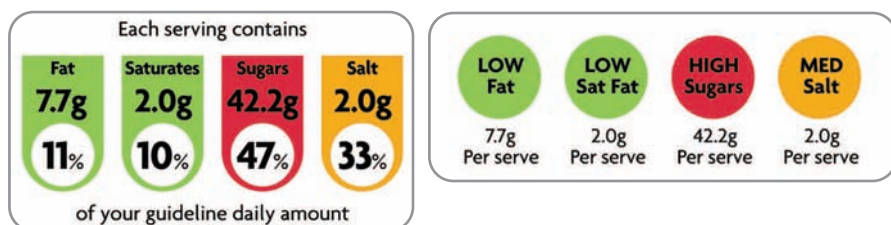


Know your labels

Making sense of food labelling isn't always easy. Both 'Traffic light labelling' and Guideline Daily Amounts (GDAs), on food and drink labels, can be a starting point to help you to see how healthy or unhealthy your food or drink is. They also allow you to compare different brands.

Traffic light labelling

The traffic light colours, on the front of some packs, tell you whether the product has low, medium or high amounts of fat, saturated fat, sugars and salt, as shown by the examples below:



Red means high – keep an eye on how often you are choosing these foods. Choose them less often or eat them in smaller quantities.

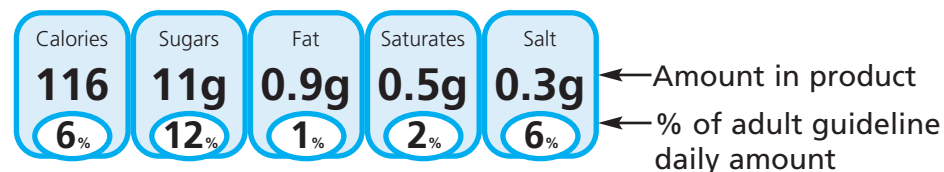
Amber means medium – it's okay to have some of the time but when you have a choice try to go for green.

Green means low – a healthier choice.

Most foods will have a mix of coloured lights so try to choose more products with green and amber and less with red. You don't need to avoid all foods high in fat, sugar or salt – it's the overall balance of your diet that counts. Eaten occasionally, or in small amounts, red foods won't significantly affect your overall diet. If the traffic light label doesn't tell you enough, check the back of packs for detailed information.

Guideline Daily Amounts

Not all manufacturers use the traffic light system so you may see a Guideline Daily Amount (GDA) label on some of the foods you buy such as the example below:



This label provides information on the amount of sugar, fat, saturated fat and salt as well as the number of calories in each portion of the product. The percentages refer to the proportion of the total amount of the nutrient that is recommended for an average adult per day. These figures are based on GDAs for women to encourage people who need less energy to consume fewer calories.

This system requires a greater level of interpretation than the traffic light system.



For further information about food labelling, see Diabetes UK's useful credit-card sized, fold out leaflet, *Know your labels* (code: 7402).

Foods labelled as 'healthier' choices

Most supermarkets are now offering their own 'healthy-eating' ranges. Although they can help you find healthier options, you still have to think about how the food fits into your diet. It's important not to rely on foods marked as healthy-eating options – a healthy diet is made up of a variety of foods. Some products may be labelled as low fat and be high in sugar, and vice versa.



Products labelled 'low' contain less of that nutrient than those labelled 'reduced' – but whether a food is labelled 'diet', 'light', 'low' or 'reduced', all of them are healthier choices than standard versions of the same food. It's important to remember that there won't be significant savings for foods that contain high fat, salt and/or sugar in the first place, such as chocolate and crisps.

Also bear in mind that some foods are naturally low in fat, sugar or salt, or high in fibre. Starchy foods like cereals and pasta are always low in fat, yet some brands are sold with the claim 'low-fat food'.

Ingredients

By checking the ingredients list, you can really get to grips with the food's nutritional value. Remember, the ingredients are listed from the highest ingredient first to the lowest ingredient last.

Further information

For more information about your grocery shopping visit the Diabetes UK Store tour www.diabetes.org.uk/storetour



You may also be interested in reading these other related Diabetes UK resources:

Diabetes UK publications

Understanding diabetes (free) (code 8002)

Weight creeping up on you? (free) (code 7500)

Know your labels (free) (code 7402)

Diabetes UK also has a range of cookbooks.

To order telephone: 0800 585 088



Sources of support and information

Diabetes UK Careline

Diabetes UK Careline is here to help. Call 0845 120 2960 for support and information (although we're unable to provide individual medical advice). BT call from land lines cost no more than 4p per minute; calls from other providers and mobiles may vary.

Diabetes UK website

For further information about other aspects of diabetes visit www.diabetes.org.uk

Diabetes UK publications Tel: 0800 585 088

Diabetes Education Network www.diabetes_education.net

British Dietetic Association – provides a range of food fact information sheets on all aspects of diet. Tel: 0121 200 8080 www.bda.uk.com

Food allergies

Coeliac UK, Suites A-D Octagon Court, High Wycombe, Bucks HP11 2HS. Tel: 0870 444 8804 www.coeliac.co.uk

Allergy UK, 3 White Oak Square, London Road, Swanley, Kent BR8 7AG. Tel: 01322 619898 www.allergyuk.org

Anaphylaxis Campaign, PO Box 275, Farnborough GU14 6SX
Tel: 01252 542029 www.anaphylaxis.org.uk

Special diets

The Vegetarian Society, Parkdale, Dunham Road, Altrincham, Cheshire WA14 4QG. Tel: 0161 925 2000 www.vegsoc.org

The Vegan Society, Donald Watson House, 21 Hylton Street, Hockley, Birmingham B18 6HJ. Tel: 0845 458 8244 www.vegansociety.com

Weight management

Weight Concern, Brook House, 2–16 Torrington Place, London WC1E 7HN. Tel: 020 7813 6636 www.weightconcern.com

About Diabetes UK

Diabetes UK is the charity for people with diabetes, their family, friends and carers. Our mission is to improve the lives of people with the condition and work towards a future without diabetes.

Diabetes UK stands up for the interests of people with diabetes by campaigning for better standards of care. We are one of the main funders of diabetes research in the UK, which includes research into cause and prevention, care and treatment and finding a cure. We also provide practical support and information to help people manage their diabetes.

How can you help?

You can be actively involved in the work Diabetes UK does.

Become a member

call free on 0800 138 5605

Diabetes Campaigners Network

for details call 020 7424 1000

Email dcn@diabetes.org.uk www.diabetes.org.uk/campaigns

Fundraising ideas and events

call 020 7424 1000 email: events.fundraising@diabetes.org.uk
www.diabetes.org.uk/fundraise

Make a donation

call 020 7424 1010 www.diabetes.org.uk/donate

Feedback

We welcome any feedback you may have on this leaflet or on any of our other information. Email: infofeedback@diabetes.org.uk



Diabetes UK has been certified
as a producer of reliable
healthcare information

Diabetes UK is the charity for people with diabetes, their family, friends, carers and healthcare professionals. Our mission is to improve the lives of people with the condition and work towards a future without diabetes.

There are 2.6 million people in the UK diagnosed with diabetes. We campaign for better standards of diabetes care, fund diabetes research and provide support and information to help people manage their diabetes.

Diabetes UK receives no government funding. We rely on donations to fund our work. To support us, please call 0845 123 2399 during office hours, or visit www.diabetes.org.uk



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