

Weight creeping up on you?

Diabetes and weight management



Contents

Introduction	3
What is diabetes?	4
What are the benefits of losing weight?	5
How do I know if I need to lose weight?	6
Getting motivated	8
Who can help?	9
Healthy eating and lifestyle	10
Calorie controlled plan	14
Commercial weight loss programmes	18
Setting goals	20
Medication and surgery	21
About Diabetes UK	23
Diabetes UK offices	24

This booklet has been kindly sponsored by Novo Nordisk Ltd.



Introduction

Everyone is recommended to follow a healthy lifestyle and managing your weight well is particularly important if you have diabetes. Achieving a healthy weight may seem difficult but it is well worth the effort. As well as helping you manage your diabetes, making realistic long-term changes to your lifestyle can bring other rewards. These could be being able to fit into last summer's clothes, playing in the park with your family or running for the bus without feeling out of breath. There are different approaches you can take to losing weight. One way won't suit all. This booklet aims to guide you through the various ways you can lose weight and achieve your own personal goals, but first, here is a bit of background as to why weight management is so important if you have diabetes.



What is diabetes?

Diabetes mellitus is a condition in which the amount of glucose (sugar) in the blood is too high because the body cannot use it properly. Glucose comes from the digestion of starchy foods such as bread, rice, potatoes, chapatis, yams and plantain, from sugar and other sweet foods, 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. The main symptoms of untreated diabetes are increased thirst, going to the loo all the time – especially at night, extreme tiredness, weight loss, genital itching or regular episodes of thrush, and blurred vision.

Type 1 diabetes develops if the body is unable to produce any insulin. This type of diabetes usually appears before the age of 40. It is treated by insulin injections and diet, and regular physical activity.

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). This type of diabetes usually appears in people over the age of 40, although in South Asian and African-Caribbean people, it often appears after the age of 25. However, recently, more children are being diagnosed with the condition, some as young as seven.

Type 2 diabetes is treated with lifestyle changes such as a healthier diet, weight loss and increased physical activity. Tablets, insulin and other diabetes medication may also be required to achieve normal blood glucose levels.

The main aim of treatment of both types of diabetes is to achieve blood glucose and blood pressure levels as near to normal as possible. This, together with a healthy lifestyle, will help to improve wellbeing and protect against long-term complications of diabetes such as damage to the eyes, kidneys, nerves, heart and major arteries.

What are the benefits of losing weight?

For people with diabetes there are major health benefits of losing weight. These include better control of your blood glucose levels, blood fats including cholesterol and blood pressure reducing the risk of developing long-term complications. Being overweight makes diabetes control more difficult as excess weight makes it hard



for the body to use insulin properly (insulin resistance), irrespective of whether the insulin is being injected or being made by the body. Insulin resistance is especially associated with excess fat around the waist and people from South Asian communities have an even greater health risk associated with being overweight.

If you are overweight, studies show that by losing 10 per cent of your body weight you will gain health benefits such as improved diabetes control and lower blood pressure and cholesterol.

Aim for a realistic weight loss, losing weight slowly over time (0.5–1.0kg/week (1–2lbs a week). Losing weight more quickly than this may not be sustainable over time.

How do I know if I need to lose weight?

There are several ways you can measure yourself to find out if you are overweight:

1. Waist circumference

You can check your waist circumference, which shows the amount of weight you carry around your waist. If you need to lose weight, reducing your waist measurement will help to improve blood glucose control and reduce your risk of developing some diabetes complications.



To measure your waist, find the bottom of your ribs and the top of your hips. Measure around your middle at a point mid-way between these (for many people this will be the tummy button).

Waist circumference measurements:

- White and black men should be **below 94cm (37 inches)**.
- Asian men should be **below 90cm (35.5 inches)**.
- White, black and Asian women should be **below 80cm (31.5 inches)**.

2. BMI (Body Mass Index)

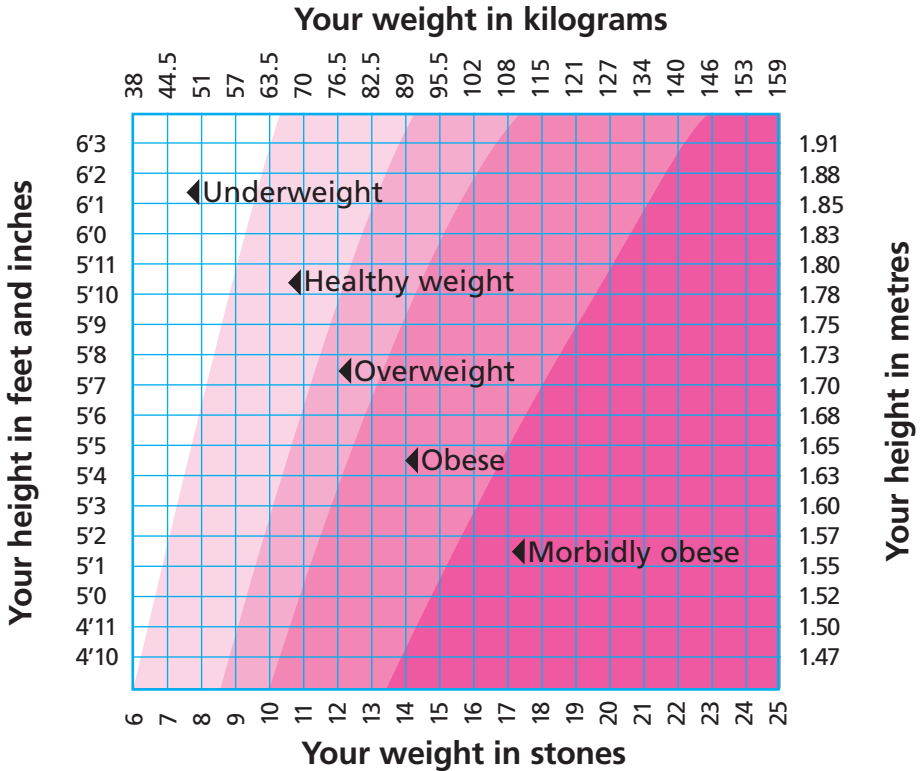
Body Mass Index (BMI) is a measure of your weight for your height. It is a good indicator of what weight range you are in. The chart on the next page will help you to determine this.

Find the point where your height and weight meet on the chart and you can see how your weight is classified. Weight classification is slightly different for people of Asian origin as shown in the key.

It is important to remember that the BMI measure can be inaccurate at times for people who have a lot of lean muscle such as rugby players or weight lifters. You can discuss your BMI with a member of your healthcare team if you think this might apply to you.

Key

- Underweight:** a BMI of up to 18.4, Asian adult less than 18.5
- Healthy weight:** a BMI of 18.5–24.9, Asian adult 18.5–22.9
- Overweight:** a BMI of 25–29.9, Asian adult 23–24.9
- Obese:** a BMI of 30–39.9, Asian adult 25–34.9
- Morbidly obese:** a BMI of 40 or more, Asian adult 35 or more



To calculate your BMI: $BMI = \frac{\text{weight (kg)}}{\text{height (m)} \times \text{height (m)}}$

For example, if you are 1.80m tall and 95kg, your BMI would be

$$\frac{95}{1.8 \times 1.8} = \frac{95}{3.24} = 29.3$$

one foot = approx 0.3 metres
one pound = approx 0.45 kilograms

Getting motivated

Before taking steps to lose weight, you may find it helpful to prepare yourself mentally and motivate yourself by thinking about the benefits. Consider the possible challenges it will pose and the changes you will need to make to your current lifestyle. Tick which of the following are important to you:

Losing weight could:	Tick here
change my body shape and help me get into my old clothes or go shopping for new ones	
take the weight off my joints so that I don't have pain	
improve my diabetes control and help prevent some of the complications of diabetes	
Why not add some of your own benefits here...	

So what is stopping you?

Many things can get in the way of losing weight. Here are how other people have dealt with some common barriers:

"I didn't have the time to cook meals..."

By shopping in advance and pre-planning the week's meals, I found I did not have to think about what I was going to cook on the way home and did not have to shop on a daily basis which all takes time. I also bought a cookbook for quick family meals to give me ideas."

“I thought I couldn’t eat healthily on a budget...

My dietitian told me that canned and frozen fruit and vegetables are just as good for me as fresh. So now I only buy fresh fruit and vegetables that are in season or on special offer as the canned and frozen options are a lot cheaper. ”

“I had tried diets before but I never lost weight...

I decided to find out why they weren’t working for me. I now understand what triggers me to eat and keep motivated by reminding myself of the benefits of losing weight. If for instance I want to eat because I’m bored or stressed, I choose to go for a walk instead. I have now reached my goal weight.”

Who can help?

If you have diabetes and are trying to lose weight it is important to get the right support.

Discussing your weight and blood glucose control with your dietitian, practice nurse or GP may help you to work out which combination of medication, diet and activity best suits your needs and lifestyle.



At times, you may also need additional support from friends, family and local weight loss support groups.

Some people with diabetes worry that taking insulin will make them put on more weight. This is not always the case and can be discussed with a healthcare professional.

Healthy eating and lifestyle


Following a long-term, healthy balanced diet and doing regular physical activity are great ways to adapt your lifestyle. If you can stick to it, it is one of the best ways of losing weight and keeping it off. To start with, it is important to understand the general principles of healthy eating.


What should a healthy, balanced diet look like?

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. Use the eatwell plate to help you get the balance right. It shows how much of what you eat should come from each food group.

The eatwell plate

Use the eatwell plate to help you get the balance right. It shows how much of what you eat should come from each food group.

 **FOOD STANDARDS AGENCY**
food.gov.uk



Fruit and vegetables

Bread, rice, potatoes, pasta and other starchy foods

Meat, fish, eggs, beans and other non-dairy sources of protein

Milk and dairy foods

Foods and drinks high in fat and/or sugar

© Crown copyright material is reproduced with the permission of the Controller of HMSO and Queen's Printer for Scotland.

What portion sizes should I have for my main meal?

A plate model that offers guidance on what to eat on a daily basis is shown below. This gives you an idea of what the size of your portions should be for your main meal. You can reduce the calorie content of your meal by filling up one half of your plate with vegetables or salad, one third with starchy foods such as bread, rice, potatoes, or pasta and the remainder with low fat varieties of protein such as meat, fish, chicken, lentils, or beans.

This might be more difficult to work out for meals where food groups are mixed such as lasagne and stir fry noodles. The examples below may help:

Lasagne

The pasta sheets will contribute to your starchy foods and the meat will contribute to the protein on your plate. Fill half the plate with lasagne and make a salad or use vegetables to fill up the rest of your plate.

Beef noodles

The noodles and the beef will contribute to the starchy foods and the protein. Add a large portion of vegetables to the stir fry to make up the vegetables.



Serve plenty of vegetables and salad with your meals.

Cutting down on calories

In order to lose weight you need to take in fewer calories than your body burns. A calorie is a measure of energy.

Gram for gram, fat provides twice as many calories as carbohydrate or protein. Reducing how much fat you eat will help you to reduce your calories. Here are a few ways of doing this:

Replace this...	with this...	and save this... (calories)
Full cream milk	Semi/ skimmed milk	50 per half pint
Double cream	Half fat fromage frais	40 per tbsp
Digestive biscuits	Gingernut biscuit	40 per biscuit
Crisps	Fruit	100 per bag
Chicken breast with skin	Chicken breast without skin	45 per portion
Full fat cheddar cheese	Reduced fat cheddar cheese	60 per 40g/1.5oz
Margarine/butter	Low fat spread	50 per 10g/0.35oz pat

This may not seem like a lot of calories but they soon add up. For example by substituting a piece of fruit for a packet of crisps on five days of the week you can save 500 calories.

Practical tips for cutting down

- Mince or meat – dry fry and drain off any excess fat before adding the remaining ingredients (eg for casseroles or stir fry).
- Pulses, such as beans and lentils – use as an alternative to meat in some recipes, eg curry.
- Butter or margarine. Unsaturated fats, eg olive, rapeseed or sunflower spread contain fewer calories than butter.



- Sauces – use cornflour or wheat flour and water to make a paste instead of blending flour and fat for a roux.
- Cheese – use a reduced fat variety. Grated cheese also goes further.
- Grill, bake, poach, steam or dry roast rather than frying or adding fat to foods.

Increase your activity

Having diabetes doesn't mean you can't become more active. The more activity you do the more calories you will burn. Just because you are doing the recommended amount of physical activity, it does not mean that you can necessarily increase the amount that you eat in a day. The healthiest way to lose weight is to consume fewer calories and increase your activity. You may need to talk to your diabetes team once you're active on a regular basis as your diabetes medication may need to be adjusted.

How much does your activity burn?

Activity	Calories burnt per 30 minutes	Activity	Calories burnt per 30 minutes
 <p>Cycling</p>	<p>186</p> 	 <p>Tennis</p>	<p>216</p> 
 <p>Running</p>	<p>291</p> 	 <p>Walking</p>	<p>105</p> 

Calorie controlled plan

In addition to being more active and eating a healthy or balanced diet, it is possible to follow a plan to structure your intake around the number of calories you will need to lose weight. The same principles of healthy eating apply but it can be helpful for those people that like to have a structured dietary plan.

The recommended guideline daily amounts of calories for an 'average' female and 'average' male wanting to lose weight are below:

Women: 1500 calories per day	Men: 1800 calories per day
-------------------------------------	-----------------------------------

In order to lose weight at this rate the calories you eat and drink need to be 500 – 600 calories less than what you burn.

The recommended guideline daily amounts for weight loss are based on the individual doing low amounts of activity. These recommendations are a good starting point; however over time you will need to adapt them to your own weight and activity levels with the support of your registered dietitian. Factors such as activity, size of body, sex and age will make a difference to your individual needs.

To make sure your diet is balanced it may be helpful to work out the number of servings you can have from each food group each day. On the following page is an example of a 1500 and 1800 calorie meal plan.

	Average calories per serving	Women	Men
Breads and cereals	90	5 servings 450 cal	7 servings 630 cal
Fruit and vegetables	45	5 servings 225 cal	7 servings 315 cal
Average meat/poultry	140	2 servings 280 cal	2 servings 280 cal
Average milk and dairy	75	3 servings 225 cal	3 servings 225 cal
Other		320 cal	350 cal
<p>No more than 2 portions should come from the fat and sugary food group - see page 17. Your alcohol calorie allowance also needs to fit into this.</p>			
Total		1500 calories	1800 calories

Serving sizes and average calorie content for each food group

Once you have planned which food groups you will gain your calories from, you can then get an idea of how big a serving size is from the examples given overleaf.

Fruit and vegetables

Most fruit and vegetables contain on average 45 calories per serving. Examples of serving sizes are below:

Whole banana or apple

Slice of melon

2 plums

Handful of grapes

Cereal bowl of salad

3 heaped tablespoons of vegetables

1 small glass of fruit juice (150ml) can be substituted for one serving of fruit per day



Breads and cereals

Most breads and cereals contain on average 90 calories per serving. Examples of serving sizes are below:

2– 4 tbsp cereal

1 slice of bread

½ small chapati

2 tbsp rice, pasta, noodles, mashed potato

2–3 crispbreads or crackers

2 egg-sized new potatoes or ½ baked potato



Dairy foods

Most low fat dairy foods contain on average 75 calories per serving. Examples of serving sizes are below:

⅓ pint (190mls) skimmed or semi-skimmed milk

Small pot of low fat or diet yogurt (125ml)

2 tbsp of cottage cheese

1–1 ½ oz (40-45g) low fat cheese (matchbox size)



Meat products and meat alternatives

Most lean meat, fish and alternatives contain on average 140 calories per serving. Examples of serving sizes are below:

2–3oz (60-85g) meat, poultry or vegetarian alternative

4–5oz (120-140g) fish or oily fish

2 eggs

3 tbsp beans, lentils or dahl

2 tbsp of nuts



Extras

Fats and sugars

Most fats and sugars contain on average 85 calories per serving. Examples of serving sizes are below:

2 tsp spread, butter, oil, salad dressing or mayonnaise

sausage or 1 rasher of bacon

1 scoop of ice cream or 1 tbsp cream

1 mini chocolate bar or small pack of crisps

2 tsp sugar, jam or honey



Alcohol

Dry medium white wine (125mls) 100 calories

½ pint draught beer 100 calories

1 pub measure of spirits (25mls) 50 calories



It is important to remember the calorie content of the foods shown are only averages (some foods will be more or less than the average) and for more specific information on the calorie content of foods use calorie counting guides on the web or you can purchase them.

For more general information on how to read a label, see *Know your labels* (Free) (code: 7402), which can be ordered through the Diabetes UK publications orderline (see back page).

Commercial weight loss programmes

Trying to eat more healthily and leading a more active lifestyle is not easy for everyone. Some people find they need more support and choose to join a commercial weight loss programme. These are usually available in your local pharmacy, via your GP on prescription, at your community centre or via the internet.



Programmes are likely to involve one or a combination of the following:

- calorie controlled weight loss eating plan
- individual, group or internet support
- meal replacements such as milkshakes, ready meals or bars
- psychological support.

It is important that the programme provides support and education to ensure the weight loss you are being promised is realistic and sustainable. You need to ensure it follows healthy weight loss guidelines. Inform your diabetes team if you are starting a programme as it may have an effect on your blood glucose levels and medication doses.

In order to find a realistic and healthy weight loss programme use the guide shown on page 19. If you answer 'no' to one of the questions you need to consider if the programme is suitable for you. You can also discuss this with your healthcare professional.

What to look for in a healthy weight loss programme

Is the weight loss offered realistic?

The weight loss offered by the programme should be no more than 0.5–1.0kg/week (1–2lbs a week).

Does the programme provide complete nutrition?

The programme should include all food groups (from 'The eatwell plate' shown on page 10) or provide complete nutrition through meal replacements.

Does the programme give support and education?

The programme should offer support networks such as group, internet and individual support systems.

The programme should also offer education to ensure that when you complete the programme the weight loss that you have achieved can be maintained. If the programme offers good education to support your transition back to your 'normal' diet you are more likely to be able to maintain your weight loss.



Has a healthcare professional been involved?

It is important a healthcare professional has been involved in the development of the programme to ensure its safety.

Does the programme offer advice on your diabetes? (especially if you are at risk of hypoglycaemia)

If you are at risk of hypoglycaemia the programme needs to offer you advice on hypoglycaemia management.

Setting goals

Regardless of how you lose weight, it might help to set a long-term goal for your weight loss with short-term goals to help you achieve it. This will help you stay motivated.

Discuss your current eating and physical activity regime with your healthcare professional (keeping a diary may help). Then you can work together to set goals and lifestyle changes that you both feel are achievable in helping you to lose weight. Your healthcare professional will then help you to measure these goals over time and support you through regular follow-up and weight loss education.

Make sure your goals are realistic. If you don't set goals and record them then you do not have anything to measure yourself and your lifestyle changes against. It will help you to maintain motivation and gain a sense of achievement.

1. Start by setting a long-term goal with a realistic target, eg I want to be a size 14 by summer next year.
2. Once you have set your long-term goal, you need to make short-term goals to help you achieve it. By making small changes every few weeks you'll notice the benefits gradually and your ultimate target will be more attainable.

You can set as many goals as you like. Below is an example:

Long-term goal: I would like to lose 1 and ½ stone in the next year which is 10 per cent of my body weight.

What action shall I take?

Instead of a bag of crisps each day, I will have a piece of fruit. I will do this on at least five days a week.

How will I achieve this?

I will take a piece of fruit to work every day.

What do I need to do to make this happen?

I will buy fruit and vegetables that are in season and on special offer each week.

When will I start?

I will start on Monday once I have done my weekly shop.

How will I monitor my success?

I will start a diary with my three goals and tick each day that I achieve them. I will then reward myself (examples below).

Measuring your progress

You can measure your progress by the weight loss that is achieved (measured by scales, your waist measurement and/or your clothes) and also by monitoring your short and long-term goals. Try to weigh yourself at the same time of the day, no more than once a week. Remember, changing eating and physical activity habits takes time and effort. Reward yourself when you achieve your goals with a book, new clothes or a night out.

Medication and surgery

Weight loss medications and surgery are not recommended as first line treatment to losing weight by Diabetes UK. However these may be considered by your doctor if serious attempts at diet and lifestyle changes have been made and your weight isn't low enough to improve your health.

Medication

Medication should only be considered for a short time to help you to lose weight. You will need to make changes to your diet and lifestyle to ensure the medication works correctly and that you can maintain the weight loss once you stop taking the medication. It is very important that you have adequate support in place from your healthcare team in order to lose weight effectively and safely. Your diabetes team will also need to be aware of any medication.

In order for you to be considered for weight loss medication you will need to have a BMI of 27 or greater.



Surgery

Surgery for weight loss can also be known as 'bariatric surgery'. Bariatric surgery refers to the different types of surgical procedures performed to treat obesity by modification of the gastrointestinal tract to reduce nutrient intake and/or absorption. It is very important not to confuse bariatric surgery with procedures for surgical removal of body fat such as liposuction or abdominoplasty.



Bariatric surgery can be a way of losing significant amounts of weight for people who are severely overweight. However surgery does have serious associated risks and should only be considered if serious attempts to lose weight through diet and lifestyle have been unsuccessful.

Once the decision to have weight loss surgery has been made, there are different types of surgery for the individual and surgeon to consider. The surgeon and team will help to ensure that you understand the expected weight loss and method of weight loss, the effect it will have on your diet for the rest of your life and any possible complications the surgery involves.

The surgeon also needs to provide support networks to ensure the weight loss procedure is safe before and after surgery. The team should include a surgeon, nurse, dietitian and psychologist. A diabetes specialist team should be involved and give guidance on how the surgery may affect the individual's diabetes.

BOSPA (British Obesity Surgery Patient Association) is a charity for people who have had weight loss surgery. It is run by people who have had the surgery themselves and they may be helpful to contact for added support: www.bospa.org.

Maintaining a healthy weight: No matter which method of losing weight is best for you, Diabetes UK recommends that it's important to continue to maintain your weight loss by eating a healthy balanced diet, doing regular physical activity and setting goals to keep up your motivation.

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 is one of the largest patient organisations in Europe. We stand up for the interests of people with diabetes by campaigning for better standards of care. Diabetes UK is 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 provide practical support and information and safety-net services to help people manage their diabetes.

Did you know?

There are over two million people in the UK diagnosed with diabetes and more than 500,000 have the condition but don't know it.

- Our website www.diabetes.org.uk has over 4,000 visitors a day.
- We have a **network of offices throughout the UK** – see back page.
- We have **over 170,000 members**.
- Diabetes UK Careline staff **answer over 200 enquiries a day**.
- We spend **£7.3 million a year on diabetes research**.
- We produce a wide range of **magazines, books and leaflets** covering all aspects of diabetes.

All of this and more is made possible through donations and by people being members of Diabetes UK.

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** or email:
events.fundraising@diabetes.org.uk www.diabetes.org.uk/fundraise

Make a donation – call **020 7424 1010** www.diabetes.org.uk/donate

Diabetes UK

National and regional offices

Central Office	Telephone 020 7424 1000
Diabetes UK Cymru	Telephone 029 2066 8276
Diabetes UK Northern Ireland	Telephone 028 9066 6646
Diabetes UK Scotland	Telephone 0141 245 6380
Diabetes UK Eastern	Telephone 01376 501390
Diabetes UK East Midlands	Telephone 0115 950 7147
Diabetes UK London	Telephone 020 7424 1116
Diabetes UK Northern & Yorkshire	Telephone 01325 488606
Diabetes UK North West	Telephone 01925 653281
Diabetes UK South East	Telephone 01372 720148
Diabetes UK South West	Telephone 01823 324007
Diabetes UK West Midlands	Telephone 01922 614500

Visit www.diabetes.org.uk/in_your_area/ for email addresses

Useful contacts

Become a member	Telephone 0800 138 5605
Customer Services	Telephone 0845 123 2399
Diabetes UK Careline (or if hearing impaired)	Telephone 0845 120 2960* Textphone 020 7424 1031
Publications orderline	Telephone 0800 585 088

Visit www.diabetes.org.uk for further information

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



The charity for people with diabetes

Macleod House, 10 Parkway, London NW1 7AA

Telephone 020 7424 1000 **Fax** 020 7424 1001

Email info@diabetes.org.uk

Website www.diabetes.org.uk

A charity registered in England and Wales (no. 215199)
and in Scotland (no. SC039136). © Diabetes UK 2008