



British Heart  
Foundation

## YOUR SIMPLE GUIDE TO HEALTHY WEIGHT LOSS



FIGHT  
FOR EVERY  
HEARTBEAT

[bhf.org.uk](http://bhf.org.uk)

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### WHY IS YOUR WEIGHT IMPORTANT?

Coronary heart disease is the UK's single biggest killer.

Being overweight or obese increases your risk of coronary heart disease.

The British Heart Foundation (BHF) wants to help you fight back.

Research shows that reaching and keeping to a healthy weight can cut your risk because it helps prevent and manage conditions like high blood pressure, high cholesterol, and type 2 diabetes that put you at greater risk of coronary heart disease.

So now it's down to you.

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## IS THIS PLAN FOR ME?

'You've got to be in the right mindset to begin with. Start small – eat well, start walking, and you'll get there.'

Vivienne lost 2st



## **THIS BOOKLET WILL:**

- help you identify the changes you need to make to lose weight and keep it off
  - give you all the information you need to get the nutrients needed for good health and enjoy your food at the same time
- If you want and need to lose weight, then this plan is for you.

### **Why use this plan?**

Everyone can benefit from eating well and maintaining a healthy weight. This guide focuses on losing weight, so it's been specially designed for adults with a body mass index (BMI) of 25 or more. You can work out your BMI using the chart on page 07 or online at [bhf.org.uk/bmi](http://bhf.org.uk/bmi)

This plan is not a 'diet' – something restrictive and very short-term which doesn't work in the real world. It's a weight loss plan for life that will help you combine the healthiest foods into a balanced diet that suits you.

This plan is flexible, and there are no strict rules. You won't have to count calories, or even cut out your favourite foods. Instead you'll use the portion size guide to help you keep to the recommended amount of calories you need.

The portion guides in section 3 show you the portion sizes of common foods, making it easy to eat well and choose a balance of the foods you enjoy and include things like chocolate, crisps and cakes as a treat now and then.

Not only will losing weight improve your health, we hope that meeting your weight loss goals will mean you'll feel great and get more out of life.

- support you to achieve a gradual weight loss of 1-2 pounds (0.5 – 1 kg) a week
  - give you the information you need to plan changes you can stick to – with simple tips and easy ideas to put it all into practice.
- Changing habits takes determination. But we know you can do it and that it will make a real difference to your health, and your future.**

**This plan is not suitable for children and young people or pregnant women, and if you suffer from any medical condition you should always ask your GP before starting a weight loss plan.**

## 06 – 07

### DO I NEED TO LOSE WEIGHT?

Medical professionals use a measurement called body mass index (BMI), to work out which of four categories you fall into – underweight, ideal weight, overweight or obese. Your BMI is calculated using your weight and height measurements.

If you're in the overweight or obese categories, you are at increased risk of a number of health conditions, including coronary heart disease. By losing and maintaining a healthy weight you can help reduce your risk and manage some existing health problems.

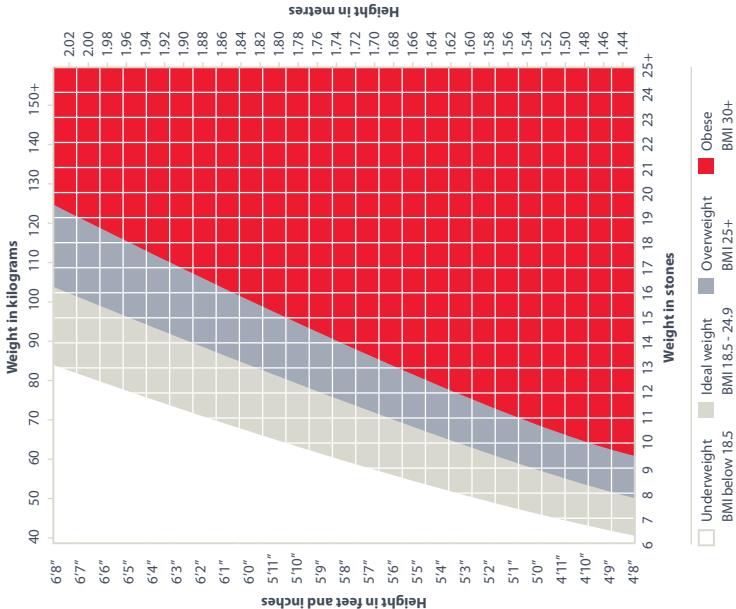
**Our online BMI calculator is a quick and easy way to check your BMI – go to [bitf.org.uk/bmi](http://bitf.org.uk/bmi)**

**The BMI is a useful measure, but remember it is only a guide and it does have some limitations:**

- it is only for adults over 18
- it doesn't apply to pregnant women
- the thresholds for the categories differ slightly with gender and race
- it doesn't take into account adults with a very athletic build (e.g. professional athletes) because muscle weighs more than fat.

**Talk to your doctor or practice nurse if you have any questions about your BMI.**

### BMI INDEX CHART



### To work out your BMI

- Find your weight across the top or bottom of the chart and then follow the straight line up or down until you find your height on the left or right.
- Put a mark where the two lines meet and this will show you which weight category you are in.

As well as checking your BMI it is also important to measure your waist size. Your shape, as much as your weight, can affect your health risk. Fat around your middle can increase your risk of getting heart disease, cancer and type 2 diabetes. That's because these fat cells produce toxic substances that cause damage to your body.

You can work out if you're at increased risk by simply measuring your waist. Find the bottom of your ribs and the top of your hips, and measure around your middle at a point mid-way between these. For many people this will be at the level of the tummy button. Remember not to breathe in!

	<b>Increased risk</b>	<b>Severe risk</b>
Men (white European)	Over 94cm (37")	over 102cm (40")
Men (African-Caribbean, South Asian and some other minority ethnic groups)	–	over 90cm (35.5")
Women (white European)	Over 80cm (32")	over 88cm (35")
Women (African-Caribbean, South Asian and some other minority ethnic groups)	–	over 80cm (32")

**I've lost 6cm off my waist and I can fit into trousers I haven't worn for years,**

Rif lost 13lb and 6cm off his waist

#### Why are there different measurements for people of different ethnicities?

Research shows that if you're South Asian, African-Caribbean, Black African, Chinese, Middle Eastern or have parents of two or more different ethnic groups, you may be at increased risk of some health conditions at a lower BMI than people from white European backgrounds. This means the measurements that indicate severe risk are lower for people from these groups.

## YOUR STATS

**Fill in your details below so you have a record of where you are starting from**

Date:	
My BMI:	
My waist measurement:	
My current weight:	
My BMI category:	
My risk level: (based on your waist measurement)	

If your BMI and waist circumference indicate that you are overweight and/or at increased risk, don't panic – making simple changes to your lifestyle can help you lose weight, and this plan will support you to do that.

### What weight should you aim for?

While you might have an 'ideal' weight in mind, a little goes a long way when it comes to weight loss. Research has shown that losing 5-10% of your body weight can have big benefits in terms of your health. It's also important to set realistic targets as you go along, and 5-10% of your present weight is a great short-term target for weight loss.

This doesn't mean that you can't or shouldn't lose more than 10% of your body weight. Once you have achieved the initial weight loss, you should look at your goals and take 10% of your new body weight to make that your new goal. As you progress on your weight loss journey you can continue to aim for a 10% weight loss to achieve a healthy weight.

## TARGET WEIGHT LOSS

Fill in your weight loss targets below – aiming for a 5-10% loss over the next 3-6 months.

(To work out 5% weight loss, divide your weight by 20, to work out 10% divide it by 10)

5% weight loss target:	
10% weight loss target:	

### Some benefits of 10% weight loss

- It will help lower your blood pressure and blood cholesterol levels – which will reduce your risk of coronary heart disease and stroke.
- You'll reduce your risk of diabetes or, if you have diabetes, you'll be able to control it better.
- You'll become more mobile, reduce breathlessness, and there will be reduced strain on your joints which should improve any back and joint pain.
- It may help improve your fertility, and for women may reduce period pain.
- It can help improve your mood and self-esteem.

## SECTION I: GET READY TO GO

'At my heaviest I was 25 and a half stone. I took it step by step and I knew that unless I kept going, I wasn't ever going to get there.'

Marchello lost 9st 7lbs



## UNDERSTANDING WEIGHT GAIN

To understand how weight gain and loss works, it can be helpful to think about your body as a balance of energy in and energy out. You take in energy through the calories in your food, and then you burn this energy off through your daily routine – through things like walking, shopping and going to work.

To stay the same weight, your energy in and energy out need to be the same. Weight gain happens when you take in more energy than you need.

## BEST BEFORE YOU START...

Losing weight can be hard, and managing your weight will need to be a lifelong commitment. The habits that have led you to become overweight took time to develop, so changing to healthier habits will take time too.

Before you start your weight loss journey, it's important to make sure you're feeling positive and prepared for the challenge. Identifying things that did and didn't go well in the past can help you plan for the future.

What factors do you think led you to gain weight?



What do you think has helped you to lose weight in the past?

So to lose weight, you need to tip the balance by taking in less energy and by burning more energy up. This means reducing your food intake and increasing your levels of physical activity.

**FACING THE CHALLENGES**

It can be easy to focus on the positive things that can come from losing weight such as buying new clothes, feeling great, and having more energy. But often there is a cost too – to lose weight you might need to change things that you enjoy or have been doing for a long time, like eating less than others around you or changing your schedule to do more activity.

Thinking about the advantages and disadvantages realistically will help you predict the things that might make your plans difficult to stick to. This way you can think ahead and find ways to overcome them.



Think about the last time you were able to lose weight. What was different between then and now? For example, did you have someone to support you, were you more active, did you have less opportunity to snack between meals?

If you lost weight, then put it back on, what do you think caused you to regain weight? How quickly did the weight come back on again?

Why do you think you have found it difficult to stick to changes in your eating and activity patterns?

What have you learned from previous weight loss attempts that can help you stick with eating or activity changes this time?

**'The hardest thing was just trying to stay dedicated –**

**I knew that unless I kept going, I wasn't ever going to get there. I took it step by step.'**

**Marchello lost 9st 7lbs**

18 – 19 **Take some time to think about and write down the advantages and disadvantages of making changes to your lifestyle.**

<b>Making changes to my lifestyle</b>	
Advantages	Disadvantages
e.g. better heart health, more energy for family life	e.g. hard work, miss out on meals out

Now think about what it would be like if you didn't change anything and stayed the same weight

<b>Not making any changes to my lifestyle</b>	
Advantages	Disadvantages
e.g. eat what I like, don't have to plan	e.g. putting health at risk, feel tired all the time

Hopefully the advantages of changing will outweigh the disadvantages, but think about what could help you overcome the challenges you'll face and jot down your ideas below:

<b>How I'll overcome my challenges...</b>

**KEEP A FOOD DIARY**

Filling out a food diary can be an extremely useful tool to help you control your weight. The thought of writing down what you eat may seem daunting. However, while it may be unnerving to see everything you've eaten, facing up to reality means you've already won half the battle.

Your food diary will help you identify what changes you need to make to your diet and will reveal patterns in your eating that you may not have noticed before. This can help you succeed in your weight loss plan – for example if, for example if, you can identify what times of day you are more likely to want something to eat, you can plan to have healthy snacks or meals on hand, or plan activities to help distract yourself from snacking on foods high in fat or sugar. To keep your food diary, use the table on the following page to write down everything you eat and drink throughout the day. Don't worry about what the results look like. Just be honest with yourself and you will be taking the first steps to losing weight for your health.

**For guidance on what foods fit in which groups, see section 3.**



FOOD DIARY

Download and print out more diary sheets at [bhf.org.uk/factsnotfads](http://bhf.org.uk/factsnotfads)

Day of the week	Meal/time of day	What I ate/drank	Food groups. Tick all that apply	Comments e.g. where I was, how I was feeling
			Fruit & veg	
			Meat, fish, eggs	
			Milk and dairy	
			High in fat/sugar	
			Starchy	
			Meat, fish, eggs	
			Milk and dairy	
			High in fat/sugar	

Once you've completed the food diary, use it to see which areas you need to work on. Look out for any habits you have fallen into – for example do you eat more snacks when you are stressed, or do you forget to have breakfast or your fruit and veg at weekends?

Once you've decided what changes you need to make to your diet and feel ready to make them, set yourself some goals. Goals help you focus on making realistic changes that will make a real difference to you. When setting your goals make sure they are S.M.A.R.T.

**Specific**

Be clear about the change you are making. Don't just say "I'm going to eat less" think about exactly how that will happen. Are you going to reduce your portion sizes, cut down on snacks or change what you drink?

**Measurable**

You should be able to measure your success. So decide how many of your snacks you are going to cut out or what you will have for breakfast each day. By making your goal measurable, you'll be able to check whether you've been successful in making the change.

**Achievable**

Be realistic about the changes you plan to make. You're more likely to succeed if you make small, gradual changes rather than trying to do everything at once. So start with the key areas you need to work on and build up from there.

**Relevant**

Make sure your goals focus on what you really need to change. Your food diary will help you pick out the most important areas to work on.

**Time-specific**

Write down when or how often you will make the change. Write down when you want to have achieved the change. This will make it easier for you to work out if you have achieved your goal.

**WRITE YOURS S.M.A.R.T. GOALS IN THE SPACE BELOW:**

**Now you are ready to make some healthy changes to your eating habits and have set your goals you can move on to your weight loss plan.**

## SECTION 2: HOW THE PLAN WORKS

'It's important to find ways to feel strong in yourself. Concentrate on doing it because you're the one who wants to do it.'

Pam lost 3st



To help you lose weight, you need to take in less energy and burn more energy up. This means you need to eat fewer calories. However, cutting down the quantity of food you eat is a difficult change to make and doing it the wrong way – for example by skipping meals – can be bad for you.

To make it easier for you to succeed in cutting down your calories and losing weight, there are three key areas you'll need to work on:

- getting a healthy balance of food
- cutting down on the quantity you eat
- keeping to a regular eating pattern.

By keeping to these principles and following the weight loss plan, this should help you achieve a gradual weight loss of 1-2 pounds (0.5-1kg) per week.

There may be some weeks when you lose more weight than this and other weeks where your weight may stay the same or go up. There can be many reasons for this – being unwell, a special occasion, water retention or being more active – but by tracing everything you will be able to look back and see why this may have happened.

## **WOULDN'T A DIET HELP ME LOSE WEIGHT QUICKER?**

Diets that promise quick and easy weight loss are best avoided. You may get results fast, but they are often difficult to follow in the long term so you give up, regaining the weight as quickly as it came off.

Many fad diets involve avoiding certain food groups and may not provide all the nutrients your body needs. While any weight loss will require a change to your eating habits, it shouldn't mean missing out on nutrients.

Fad diets are diets that tend to:

- promise a quick, easy fix with rapid weight loss
- suggest that certain foods 'burn fat'
- promote the eating of just one or two foods
- have lots of rules about how to eat, such as the times of day you should eat
- sound too good to be true.

**'I've made changes at this time of my life and it feels great.'**

Vivienne lost 2st

## GETTING A HEALTHY BALANCE OF FOOD

Eating and drinking fewer calories doesn't mean that you have to count calories or even cut out food. Healthy eating for weight loss means eating the right **balance** of food but also the **right amount** of food.

The best way to understand it is to think of foods in food groups. We need more foods from some food groups and less from others – but you don't need to give up any single food or drink completely. You should choose to eat mainly healthier foods that you enjoy, but it is fine to have a treat now and again.

The eatwell plate opposite shows the types and proportion of foods you need to eat to achieve a well-balanced and healthy diet. It covers everything you eat during the day including snacks.

For a balanced diet you should try to eat:

- plenty of fruit and vegetables
- plenty of bread, rice, potatoes, pasta and other starchy foods – choose wholegrain varieties whenever you can
- some milk and dairy foods
- some meat, fish, eggs, beans and other non-dairy sources of protein
- just a small amount of foods and drinks high in fat and/or sugar.

You don't always need to get the balance perfect at every meal, but try to get it right over a longer time such as a whole day or week and try to choose foods that are lower in fat, salt and sugar when you can.

Eating with the proportions of the eatwell plate in mind will ensure you get the right balance of vitamins and minerals as well as starch and fibre, while keeping fat and sugar down. This will not only help you keep your weight down, but also reduce your risk of coronary heart disease, some cancers, and dental problems.

## 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.



Even if you think you are already eating very healthily, it may be that your portions are too large, which means you will be taking in more calories than you are using up, resulting in weight gain. This weight loss plan will help you manage the quantity, as well as the type of food that you eat.

Everyone is different, but to keep their weight the same most adult men need around 2,500 kilocalories (kcal) a day, and most adult women need around 2,000 kcal a day.

National guidelines recommend that for sustainable weight loss, a reduction in calorie intake of about 500–600 kcal a day should be combined with stepping up your physical activity levels.

**To lose weight, the average man can eat or drink 1,800 kcal a day. The average woman can eat or drink 1,500 kcal a day to lose weight.**

Your calorie intake includes all your food and drink and should be based on the food groups from the eatwell plate. This weight loss plan will help you achieve the right number of calories a day by eating a certain number of portions of different types of food.

#### **How many calories should I be eating?**

If you normally eat a lot more than the recommended amount of calories you may find it hard to cut back to our suggested calorie limit and number of portions straight away.

You can use your food diary on page 22 to work out how many portions from each food group you are currently having. If you're eating many more than the recommended number of portions, aim to gradually reduce your portion sizes to those recommended in the plan, over a few weeks. If you have any questions about the number of portions or calories you should be eating, talk to a healthcare professional such as your GP, nurse or dietitian.

#### **What are kilocalories?**

A 'kilocalorie' is another word for what is commonly called a calorie. So 1,000 calories will be written as 1,000kcal.



## KNOW YOUR PORTIONS

### How much is a portion?

With this weight loss plan, you won't have to count calories or weigh out your food. Instead you just need to use the portion guides in section 3. This shows portions of common foods from all the food groups, so you can just choose as you wish.

Portions are a funny thing. The normal helping of food you have in a meal may contain more than one portion. For example, a sandwich made up of two slices of bread would count towards 2 portions from the 'bread, rice, potatoes, and other starchy foods' group and a bowl of rice may be 2-3 portions.

You'll find guidance on portions of lots of common foods in section 3 of the plan.

## CAN I INDULGE?

Nothing is banned, but foods from the foods and drinks high in fat and sugar group provide a lot of calories with little nutritional benefit, so you shouldn't eat too much of foods from this group. Think of these as foods to be enjoyed occasionally, rather than as everyday necessities.

Although there is a limit to the amount of foods in this group you can have each day, you can save your allowance up over the week if you'd prefer – having none one day and more on another. Many people find they eat differently at weekends or when eating out, so this way you can keep your indulgences 'up your sleeve' for those times when you really need them!



## KEEPING TO A REGULAR EATING PATTERN

Eating regularly can help you achieve your weight loss goals because it helps to ensure you don't get too hungry, meaning you'll be less likely to think about food between meals and less likely to turn to eating high calorie snacks.

Once you get in the habit of eating at roughly the same times each day, it will make it easier to control how much you eat.

### **What's my current eating pattern?**

You can use your food diary to help identify what your eating patterns are like and ticking the boxes that apply to you below will also help:

I skip breakfast more than once a week	<input type="checkbox"/>
I have a large lunch and skip dinner	<input type="checkbox"/>
I regularly miss meals and snack throughout the day	<input type="checkbox"/>
I have a late breakfast, skip lunch and have a large evening meal	<input type="checkbox"/>
I don't eat all day and have a large evening meal	<input type="checkbox"/>

If you are already eating regularly then move on to the next section. If you have ticked one or more of the boxes above, then you need to set some goals so that you can try and eat more regularly.

Beginning the day with a healthy breakfast would be a good start. People who eat breakfast regularly – on at least four or more days a week – are more likely to stay a healthy weight than people who don't. It doesn't need to be a cooked breakfast – a drink and a piece of fruit or a pot of yoghurt is a good start to get you into the habit.

## HEALTHY BREAKFAST IDEAS INCLUDE:

- wholegrain breakfast cereals like porridge with low fat milk or yoghurt
- toast with boiled, scrambled or poached eggs
- toast with baked beans, tinned tomatoes or grilled mushroom
- bowl of mixed fresh fruit with yoghurt
- you can have breakfast on the go too – small boxes of wholegrain cereal, tubes of low fat yoghurt and fruit can fit in a bag or briefcase.



'I've lost just under a stone and 6cm from my waistline so far. I was always making excuses – but you can make time, you've got to put the effort in.'

Rif lost 13lbs



This table shows the daily portions of each food group you should aim to eat on the weight loss plan. By using this plan, you'll be getting the right balance of food, and also the right amount of food, and calories, that will help you to lose weight.

It really is as simple as that!

<b>Food group</b>	<b>1,500 kcal (women)</b>	<b>1,800 kcal (men)</b>
Fruit and vegetables	5 or more portions	5 or more portions
Bread, rice, potatoes, pasta and other starchy foods	7 portions	8 portions
Milk and dairy foods	3 portions	3 portions
Meat fish, eggs, beans and other non-dairy sources of protein	2 portions	3 portions
Spreading fats, oils, dressings & sauces	2 portions	3 portions
Foods high in fat and sugar; alcohol	Up to 100 kcal	Up to 200 kcal

**'I actually enjoy the food I'm eating. The funny thing about not eating so much is you tend to appreciate more what you do eat.'**

Andy lost 1st 7lbs

### Eat 5 or more portions a day



About a third of the food you eat should be made up of fruit and vegetables. You should aim to have at least 5 portions of fruit and veg every day.

Research shows that people who eat more than 5 portions of fruit and vegetables a day have a lower risk of coronary heart disease. Fruit and vegetables contain vitamins and minerals which your body needs to keep healthy and they are naturally low in fat. They are also a good source of fibre, which makes them filling to eat, and they will keep your digestive system healthy.

There are five ways to get your '5 a day' – the fruit or vegetables can be:

- fresh
- frozen
- dried
- juiced or
- tinned – make sure fruit is in water or natural juice, and vegetables are in water without sugar or salt added where possible.

#### Ideas to help you get your 5 a day

- add fresh or dried fruit to your breakfast
- have fruit as a snack between meals
- have a bowl of salad with your meal – if you have a ready meal, always add extra vegetables or salad to it
- add tinned beans such as red kidney beans and chickpeas to soups, stews, curry and pasta sauces
- use leftover vegetables to make soup.



**A FEW THINGS TO REMEMBER:**

- Potatoes, yams and plantain don't count towards your '5 a day' – they are starchy foods (see page 50).
- Fruit juice and smoothies are nourishing but quite concentrated in calories. Keep to only one portion – a small glass – of unsweetened fruit juice or pure fruit smoothie a day. Avoid sugary squash or fruit juice drinks which have added sugar.
- Dried fruits are quite concentrated in natural sugar so have only one portion of these a day.
- Only one portion of pulses like kidney beans, chickpeas and baked beans can be counted as fruit and veg. Any more portions should be counted as a starchy food (see page 51).
- The fruit and veg in sauces, soups, puddings and yoghurts can count towards your five a day – but watch out for the salt and saturated fat in these foods.
- Avocado pears are high in healthy fats, but this means they are also high in calories. Have as a salad garnish only once a week and half an avocado occasionally as a treat.

**GETTING YOUR 5 A DAY**

**Tips and tricks to help you overcome the common challenges of getting your 5 a day:**

**Fruit and vegetables are too expensive**

- Try buying fresh fruit and veg when they're in season – they're usually cheaper.
- Buy loose fruit and veg rather than pre-packed so you just buy what you need.
- Opt for the supermarket's own-brand tinned, dried and frozen fruit and vegetables – including pulses and beans – to keep costs down.

**I've got no time to shop for fresh fruit and veg**

- Stock up on tinned and frozen fruit and vegetables so you always have them ready to use.
- Dried fruit also keeps well and you can eat it as a snack or add to cereal and other recipes.

**My family don't like the taste of fruit and veg**

- Set them the challenge of trying one new fruit or vegetable a week until you find some they enjoy.
- Speak in added veg to family meals – add grated carrot, chopped peppers or sweetcorn to your meals such as stirfrys, stews and even pizzas. Puree them for sauces or soups or mash into potatoes.
- Cutting fruit and vegetables into easy-to-eat chunks and sticks often makes them more appealing than a whole piece – or try a fruit kebab for dessert.



**'One thing I learned  
was you have to plan  
because it makes  
life a lot easier.'**

If you know what you're preparing you've got the stuff there and ready for you.

Rif lost 13lbs

	<b>Whole fresh fruits</b>
<b>Root vegetables</b>	<b>Salad</b>
<i>Three heaped tablespoons (80g)</i>	<i>One whole</i> 
<b>Corn on the cob</b>	<b>Dessert bowl</b>
<i>One whole</i>	
<b>Medium fruits</b>	<b>Large fruits</b>
<i>Two fruits (80g)</i>	<i>One handful (80g)</i> 
<b>Small fruits</b>	<b>Grapefruit</b>
<i>One handful (80g)</i>	<i>One slice, about 5cm thick (80g)</i> 
<b>Dried fruit</b>	<b>Fruit juice</b>
<i>Three heaped tablespoons</i>	<i>One heaped tablespoon (30g)</i> 
<b>Stewed fruit</b>	<b>One small glass or small carton (150ml). No more than once a day</b>
<i>Three heaped tablespoons</i>	
<b>Tinned fruit in natural juice</b>	

 Eat 7–8 portions a day depending on your weight loss plan

About a third of your food should be starchy foods – this food group is our body's main source of energy and should be a part of all meals.

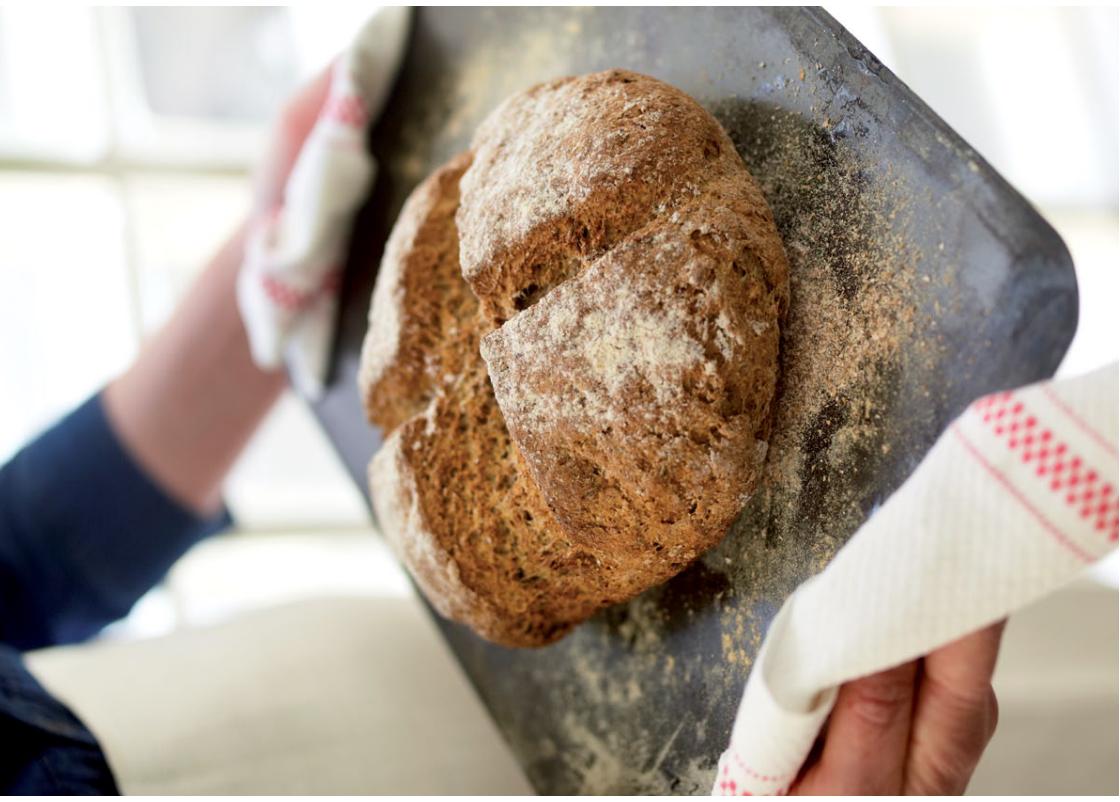
Choose higher fibre/wholegrain options when possible – they contain more fibre, vitamins and minerals and provide energy that is released slowly, making you feel fuller for longer and less likely to snack between meals.

These may seem like small portions but remember you can use more than one of your portions per meal (see example meal plan on page 73).

**For things like cereal, rice and pasta it may be useful to weigh the portion out once to see what it looks like on the plate as a guide for the future. This can also help you prepare to judge your portions when you're eating out.**

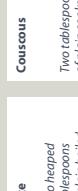
**Aren't these foods fattening?**

Starchy foods (sometimes called carbohydrates) aren't any more fattening than any of the other food groups. However it can be easy to eat more of these foods than we need, meaning the calories really add up! The key is to not add fat when you're cooking and preparing these foods, and keeping track of your portion sizes.



**Eat 7-8 portions a day depending on your plan. One portion is:**

<b>Muesli</b> Not crunchy Two tablespoons (20g)	<b>Weetabix</b> Crunchy oat / granola One tablespoon (20g)	<b>Shredded wheat</b> One biscuit
		
<b>Bread or toast</b> One slice, medium thickness	<b>Pitta bread</b> Half a pitta or one mini roll (30g)	<b>Chapatti</b> One small
		
<b>Crumpet/pikelet</b> One	<b>English muffin</b> Half a whole	<b>Malt loaf</b> One small slice (35g)
		
<b>Crispbreads</b>	<b>Oats</b> Three tablespoons (20g) uncooked (40g) cooked	<b>Yam</b> Boiled Two egg-sized pieces or a 1/2-1/4 thick slice (60g) cooked
		

<b>Rice</b> Two heaped tablespoons of plain boiled rice (80g)	<b>Couscous</b> Two tablespoons of plain cooked couscous (40g)	<b>Quinoa</b> Two heaped tablespoons of plain cooked quinoa (80g)
		
<b>Egg noodles</b> Half individual dry serving (25g). Three heaped tablespoons of cooked (80g)	<b>Potatoes</b> Two egg-sized	<b>Plantain</b> Steamed One medium-sized
		
<b>Wrap</b> Half	<b>Bagel, plain or cinnamon and raisin</b> Half	<b>Pasta</b> Three heaped tablespoons of plain boiled pasta (80g)
		

**Ideas for getting the most from your starchy foods:**

- Bake, boil or steam starchy foods, rather than frying them. And avoid adding fat once they're cooked – for example don't add butter to potatoes or chappatis, or creamy sauces to pasta or rice.
- Try making your own breads, rolls, scones or chappatis with wholemeal flour
- Eat potatoes with their skins on to get an extra boost of fibre, vitamins and minerals
- Add pulses such as lentils, beans and chickpeas to stews or curries

**1 Eat 3 portions a day**

This food group includes milk and milk products such as cheese, yoghurt and fromage frais – but not butter, margarine or cream, which are part of the food and drink high in fat and sugar group. Milk and dairy foods are an important source of calcium and protein. The fat content varies a lot between different foods in this group. Choose lower-fat versions where you can – this will mean you can benefit from their protein, calcium and other nutrients, but have less fat to go with it.

If you don't drink milk or eat dairy foods, it's good to use a milk substitute like soya milk, with added calcium – go for the unsweetened versions.



**Have 3 portions a day. One portion is:**

<b>Milk</b> Semi-skimmed or better still, skimmed One Glass (200ml)	<b>Cream cheese</b> Reduced fat or low-fat varieties One matchbox sized piece (80g)
<b>Yoghurt</b> Plain or flavoured, low-fat and low- sugar Large pot (200g)	<b>Cheese</b> Preferably lower-fat (Brie, Camembert, Edam) One matchbox sized piece (30g)
<b>Fromage frais</b>  Small pot (150g)	<b>Low fat cottage cheese</b>  Large pot (200g)

**'I have skimmed  
milk now. I think it  
tastes really good.'**

**If I have semi  
skimmed it tastes  
strange to me –  
too creamy!'**

Vivienne lost 2st

Check out the tables below to see how different cheese, creams and yogurts compare – choose the versions that are lower in fat and calories as much as possible.

Cheese facts		Type of cheese		Total fat per 100g	Saturated fat per 100g	Calories (kcal) per 100g
<b>High fat (more than 17.5g per 100g)</b>						
Mascarpone	44	29	428			
Stilton	35	23	410			
Cheddar, Red Leicester, Double Gloucester and other hard cheeses	35	22	411			
Parmesan	30	19	452			
Brie	29	18	343			
Soft goat's cheese	26	18	320			
Edam	26	16	341			
Processed cheese e.g. cheese slices, cheese strings	24	14	297			
Camembert	23	14	290			
Feta	20	14	250			
Mozzarella	20	14	257			
<b>Medium fat (3.1g – 17.5g per 100g)</b>						
Half-fat cheddar	16	10	273			
Reduced-fat processed cheese	13	8	228			
Ricotta	8	5	144			
Cottage cheese (plain or with additions e.g. pineapple)	4	2	101			
<b>Low fat (3g or less per 100g)</b>						
Reduced-fat cottage cheese (plain)	2	1	79			
Quark	0.2	0.1	74			

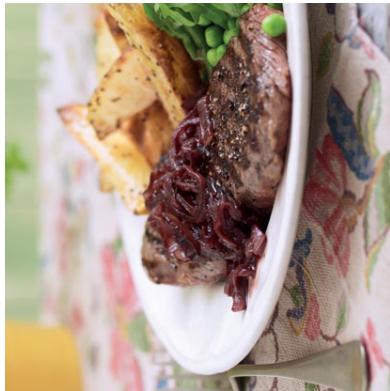
**Cream comparisons**

Compared item	Total fat per 100g	Saturated fat per 100g	Calories (kcal) per 100g
<b>Cream</b>			
Clotted	64	40	586
Double cream	54	33	496
Whipping cream	40	25	381
Double cream alternative (buttermilk & vegetable oil blend)	36	25	350
Soured cream	20	13	205
Single cream	19	12	193
Half cream	14	9	148
Single cream alternative (buttermilk & vegetable oil blend)	13	8	148
<b>Crème fraîche</b>			
Standard crème fraîche	31	22	378
Half fat crème fraîche	15	10	162
<b>Fromage frais</b>			
Natural creamy	8	6	113
Virtually fat free	0.1	0.1	49
<b>Yoghurt</b>			
Greek style	10	7	133
Thick and creamy	6	4	106
Greek style (sheep's milk)	6	4	92
Whole milk	3	2	79
Soya alternatives	2	0.3	72
Greek style 0% fat	0	0	57
Low fat yoghurt	1	0.7	56
Diet yoghurt	Trace	Trace	54

 Eat 2 or 3 portions a day depending on your weight loss plan

You should eat foods that provide you with protein two or three times a day. Protein is important for your body to work properly and these foods will provide you with vitamins, such as B12, and minerals including iron and zinc.

As well as meat and fish, choose ‘alternatives’ such as eggs, nuts and nut butter, pulses such as peas, beans and lentils and seeds, quorn™ and tofu.



**Eat 2 or 3 portions a day depending on your plan. One portion is:**

<b>Cooked lean meat</b> (without skin & all visible fat removed). Piece about this size of a pack of cards (60g-90g)	Fish White  One medium fillet (150g raw)	Fish fingers  One medium fillet (140g raw)
Baked beans in tomato sauce (low-sugar and low-salt if possible) One small tin (200g)	Lentils  Five tablespoons, cooked	Beans e.g. red kidney beans, butter beans, chick peas Five tablespoons No oil added (140g)
Quorn™, tofu or soya Two sausages or 120g (uncooked weight)	Eggs  Two	Eggs  Two
		
		

**CHOOSING PROTEIN FOODS**

Some protein foods may also be high in fat, so choosing lower fat alternatives can make sure you are getting enough protein without that extra fat and calories.

- Choose lean cuts of meat.
- Remove visible fat and skin from meat and poultry.
- Limit how often you choose processed meats such as burgers, bacon, sausages, and pies – they often contain a lot of hidden fat and salt.
- Choose fish, eggs, quorn™ beans and lentils a few times a week.
- Cook without adding fat – bake, steam, grill, poach or microwave.

**Better meat choices**

The type of meat you use and the way you cook it can make a big difference to the amount of calories and saturated fat you eat. Use the table below to choose meat that is better for you:

Type of meat	Higher calories & fat	Lower calories & fat
<b>Pork</b>	<b>Cooked porkbelly joint with fat</b>  Per 100g: 293 kcal 23.4g total fat, 8.2g saturated fat	<b>Cooked lean porkleg joint</b>  Per 100g: 182 kcal 5.5g total fat, 1.9g saturated fat
<b>Beef</b>	<b>Fried rump steak with fat</b>  Per 100g: 228 kcal 12.7g total fat, 4.9g saturated fat	<b>Grilled lean rump steak</b>  Per 100g: 177 kcal 5.9g total fat, 2.5g saturated fat
<b>Poultry</b>	<b>Fried chicken breast in breadcrumbs</b>  Per 100g: 242 kcal 12.7g total fat, 2.1g saturated fat	<b>Grilled chicken breast without skin</b>  Per 100g: 148 kcal 2.2g total fat, 0.6g saturated fat

**Myth buster: Is there a limit to how many eggs you can eat in a week?**

There's no recommended limit on how many eggs you should eat. Eggs can be included in a healthy balanced diet, but remember that it's a good idea to eat as varied a diet as possible and to use healthier cooking methods when you do have eggs. Boil or poach them rather than frying and avoid adding butter to scrambled eggs.

 Eat up to 2 or 3 portions a day



One portion is:

<b>Low-fat spread</b>	<b>Oil</b> (unsaturated oils, e.g. olive, rapeseed, sunflower, corn) One teaspoon	<b>Butter</b> or margarine or ghee One teaspoon	<b>Mayonnaise</b>
<b>Blue cheese dressing</b>	<b>Gravy or white sauce</b> made with fat and flour base (roux)	<b>Four tablespoons</b>	
<b>Salad cream</b>	<b>Gravy or white sauce</b> made with cornflour, no fat added	<b>Four tablespoons</b>	
<b>Cream (single)</b>	<b>Low fat crème fraîche</b>	<b>Six tablespoons</b>	
<b>Cream (double)/crème fraîche</b>	<b>Low-calorie mayonnaise</b>	<b>Two tablespoons</b>	

### Top tips

- Choose a reduced fat spread instead of butter, margarine or ghee.
- Grill, bake, steam, boil or poach your foods.
- If you need to use oil choose small amounts of mono and polyunsaturated oils, such as rapeseed, olive, or sunflower oil. Measure it out with a teaspoon rather than pouring it straight into the pan or use a spray oil.
- Make your own salad dressings using ingredients like balsamic vinegar, low fat yoghurt, lemon juice and herbs.

 You can have up to 100kcal to 200kcal a day depending on your weight loss plan.

Remember – if you like, you can spread this allowance out over the week, having none on one day and more on another.

This group includes cakes, crisps, sweets, chocolate, sugary fizzy drinks and alcohol. These tend to be the foods we need to cut down on. While they can be included in a balanced diet, they are not essential.

You should aim to have only small amounts of foods in this group – swap these for healthier versions or keep them for special occasions only.

If the foods you like aren't on the list, use the calorie information, per serving size, from the nutritional information on the packets to work out how much of the food you can eat according to your weight loss plan.

**Use food labels to guide you to healthier versions of these foods or healthier alternatives – look at page 79 for more info on food labels.**



You can have up to 100 kcal to 200 kcal a day depending on your weight loss plan.

Sugar	Jam	Spirits (ABV 40%) One measure or shot (25ml) 56 kcal	Chocolate Three squares 78 kcal
One teaspoon 16 kcal			



Biscuits, plain	Sweets	Glass of wine (ABV 12%) One small/glass (125ml) 100 kcal	Ice cream One small scoop 100 kcal



Biscuits, plain

Lager cider or beer (ABV 5%) Half pint 117 kcal	Bottle of beer (ABV 5%) One 330ml bottle 135 kcal	Slice of cake One small slice (50g) 150 kcal	Crisps One small packet (25g) 150 kcal



Bottle of beer (ABV 5%)

Half pint 117 kcal	One 330ml bottle 135 kcal		




Crisps


Crisps

Sugar	Jam	Spirits (ABV 40%) One measure or shot (25ml) 56 kcal	Chocolate Three squares 78 kcal	Quiche/tart One quarter of a small (60g) 250 Kcal	Chocolate bar One bar (45g) 240 Kcal	Danish pastry One Danish pastry (110g) 376 kcal
One teaspoon 16 kcal						

### Tips for eating less fatty and sugary foods

- Choose diet, no added sugar or unsweetened versions of fizzy drinks, squashes and fruit juice
- Instead of snacks such as crisps, chocolate, pakora, samosas, sweet pastries and biscuits – choose fruit, plain popcorn, wholegrain crackers or raw vegetables with a low fat dip like salsa or cucumber and yoghurt
- Use semi skimmed milk, 1% or skimmed milk rather than condensed milk or coconut milk.



Alcoholic drinks are included in this group. Most people enjoy a drink or two and there's no reason why you shouldn't have an occasional drink when you're trying to lose weight. But alcohol is high in sugar, so it's high in calories too – drinks can really add up and affect your weight loss. Also, because alcohol is an appetite stimulant, some people notice they tend to eat more when they drink alcohol.

## KNOW YOUR UNITS

A unit is a measure of alcohol. The number of units is based on the size of the drink and its alcohol strength. The ABV (alcohol by volume) figure is the percentage of alcohol in the drink. Different strengths of drinks can contain different amounts of alcohol.

**1 unit of alcohol =**

One single pub measure (25ml) of spirits (ABV 40%)	One half pint (about 30ml) of normal-strength lager, cider or beer (ABV 3.5%)	One glass (50ml) of liqueur, sherry or other fortified wine (ABV 20%)

**This table shows you the amount of calories in some common drinks:**

Drink	Units	Calories (kcal)	Same as...
25ml single spirit (ABV 40%)	1 Unit	56	3 fancy filled individual chocolates (66 kcal)
50ml of cream liqueur (ABV 17%)	1 Unit	118	Slice of Battenberg cake (119 kcal)
275ml bottle of alcopop (ABV 5.5%)	1.5 Units	170	2 chocolate covered biscuits (178 kcal)
330ml bottle of strong lager, beer or cider (ABV 5%)	1.6 Units	135	25g pack of salted crisps (132 kcal)
440ml can of regular lager, beer or cider (ABV 4.5%)	2.6 Units	182	Slice of sponge cake with cream and jam (182 kcal)
Standard glass (175ml) of red, white or rose wine (ABV 13%)	2.3 Units	166	37g tube of chocolate covered sweets (169 kcal)
Standard glass (125ml) champagne (ABV 12%)	1 Unit	86	9 sweets (90 kcal)
Pint of strong lager, beer or cider (ABV 5%)	2.8 Units	233	Sugar doughnut (242 kcal)
Large glass (250ml) of red, white or rosé wine (ABV 13%)	3.3 Units	195	Minipork pie (196 kcal)
Pint of extra strong lager, beer or cider (ABV 8%)	4.5 Units	358	Medium takeaway chicken curry (377 kcal)
Bottle (750ml) of red, white or rosé wine (ABV 13.5%)	10 Units	712	2 shish kebabs (714 kcal)

**Drinking too much alcohol can also be harmful to your health. It can lead to muscle damage, high blood pressure, stroke and some cancers. So if you drink alcohol, it's important to keep within the sensible limits, however often you drink.**

### Keep an eye on your glass size!

It's easier than you think for the units to add up when you're drinking wine or pouring your own drinks. Note that wine is only 100ml for a unit, but normal sizes for glasses of wine in the pub are either 175ml (small) or 250ml (large) so that means a glass will be more than one unit.

# 'My top tip is to drink plenty of water. **It's the best drink you can have when you're losing weight because it's got no sugars in it, and no calories.'**

Rif lost 13lbs

Drinking enough is an important part of keeping healthy so you need to have regular nonalcoholic drinks – around 6 to 8 drinks a day.

The amount of drink you need does vary though – for example if you do more activity than usual or if it's a hot day you will need to drink more. You will get some water from the food you eat, but you still need to drink too.

Many people don't realise how many calories they take in through their drinks, so when looking over your food diary think about what you drink and what swaps you can make.

#### **Cold drinks**

Water is the best choice, but you can include other non-alcoholic drinks during the day such as sugar-free squash or fruit juice. Avoid fizzy drinks that contain a lot of sugar and calories so choose sugar-free or diet alternatives instead. Flavoured waters with a hint of fruit are also good for mixing it up, but check they don't have any added sugar.

#### **Hot drinks**

You can include some tea and coffee among your daily drinks, but it's important that this isn't your only source of fluid. This is because they make it harder for your body to absorb the iron you need from the food you eat and also contain caffeine, which is a stimulant.

If you add sugar to your tea and coffee, try gradually reducing the amount you have by half a teaspoon so you get used to the taste before cutting it out completely. Remember to also think about the amount of milk in hot drinks as this can add calories – at home or in the coffee shop go for the skinny option (using skimmed milk) and skip the cream on hot chocolate.

#### **Alcoholic drinks**

Alcoholic drinks should be counted as part of the foods high in fat and/or sugar group. See page 68 for more details.

To the right is an example eating plan which shows food and drink choices for both 1,500 and 1,800 kcal. Obviously no two days are the same and not all of these options may suit you, but it shows you how the plan works and the range of foods you could eat.

**♀ 1,500 kcal (women)**

**♂ 1,800 kcal (men)**

#### Meals

Your weight loss plan will mean making changes, but that doesn't mean you have to stop eating your favourite meals. Nor does it mean you have to spend hours in the kitchen preparing special foods, in fact, many healthy and tasty meals are easy to prepare. If you want to try some new and exciting meals, sign up to our free Heart Matters service. You will be able to access our online recipe finder to search over 140 delicious heart healthy recipes and watch cooking videos of some of our favourites. You will also receive our Heart Matters magazine, which is full of great meal ideas.

Go to [bhf.org.uk/heartmatters](http://bhf.org.uk/heartmatters) to find out more.

#### Meals

#### Breakfast

Meals	Fruit and veg	Bread, rice, potato	Milk and dairy	Meat, fish, eggs	Spreading fats, oils & dressing	Foods and drinks high in fat and sugar
For 1500 kcal	5+	7	3	2	2	
For 1800 kcal	Number of portions <b>5+</b>	8	3	3	2	

#### Mid-morning

Meals	Shredded Wheat	Semi-skimmed milk	200ml	1		
	Glass fruit juice	150ml	1			
	Tea, milk no sugar					
	Toasts wholegrain			<b>1</b>		
	Low fat spread	1tsp				
	Jam	2 tsp				
				<b>50 kcal</b>		

#### Lunch

Meals	Egg and tomato wrap*	Wrap	2	1		
	Boiled egg	2				
	Low fat cheese	2 tbs		1		
	Tomato	1		<b>½</b>		
	Lettuce					
	Side salad	1 bowl	1			
	Water					
	Malt loaf	1 slice 35g		1		

#### Dinner

Meals	Spaghetti bolognese	6 heaped tbs	2	1	<b>2</b>	
	Meat sauce*	<b>½</b>	<b>½</b>	1		
	Made with tinned carrots, celery and mushrooms					
	Mixed green salad		1			
	Fat free dressing	2 tbs				1
	Yoghurt	200g		1		
	Glass wine	125ml				100 kcal
	<b>Total</b>	1500 kcal	<b>5 ½</b>	7	3	2
		1800 kcal	<b>5 ½</b>	8	3	1 <b>½</b>



<b>Meals</b>	<b>Food Group</b>	Fruit and veg	Bread, rice, potato	Milk and dairy	Meat, fish, eggs	Spreading fats, oils & dressing	Foods and drinks high in fat and sugar
<b>Breakfast</b>							
<b>Mid-morning</b>							
<b>Lunch</b>							
<b>Mid-afternoon</b>							
<b>Dinner</b>							
<b>Total</b>							

**REMEMBER!** You don't have to use all your allowance on one day – you can balance it out over the week to make it work for you.

There are two more of these tables at the back of this booklet, and you can also download and print more tracking sheets from [bhf.org.uk/factsnotfads](http://bhf.org.uk/factsnotfads)

## CUTTING DOWN ON SALT AND SATURATED FAT

To keep your heart healthy it's important that you don't eat too much salt or saturated fat.

Eating too much salt can increase your risk of high blood pressure, and this increases your chance of developing coronary heart disease. The recommended maximum amount of salt for adults is 6g a day – which is about a level teaspoon. Most people don't realise how much salt they're having and go over this limit.

Remember that all types of salt count including sea salt, flakes, crystals and garlic salt and it's not just about the salt that you add to food yourself. Most of the salt we eat is 'hidden' in foods. Foods high in salt include soups, sauces, cheese, savoury snacks, biscuits, pizza, ready meals and fast foods. There can also be a lot of salt in everyday foods like bread and breakfast cereals.

### Top tips for reducing your salt intake

- Add less salt when cooking – don't use it when you're boiling vegetables or pasta for example.
- Don't add salt to your food at the table – your taste buds will soon adapt to the taste. Experiment with herbs and spices to add extra flavour.
- Choose foods labelled 'low salt' or 'no added salt'.
- Swap salty snacks such as crisps and salted nuts for fruit and vegetables.
- Avoid saltier foods such as bacon, cheese, takeaways, ready meals and other processed food.

### Saturated fats

These can raise the amount of cholesterol in your blood, especially the harmful LDL cholesterol which increases the risk of fatty deposits developing in your arteries.

### Top tips to cut the amount of fat you eat

- Cut down on high fat snacks like crisps, chocolates, biscuits, samosas and pakoras.
- Change to low fat dairy products: use semi-skimmed or skimmed milk and choose low fat yoghurts and cheese.
- Buy the leanest cuts of meat you can and avoid processed meat products like sausages and bacon.
- Remove the skin and visible fat from meat before cooking.
- Try baking, boiling, steaming, poaching or microwaving your food instead of frying so that you don't need to add fat. Buy a non-stick frying pan and roasting tray so you can cook without adding fat.
- Measure out oil with a teaspoon or use spray oil rather than pouring it straight from the bottle.
- Spoon off fats and oils from casseroles and curries.

**'I think you should be able to give yourself treats. The weekend is a natural time to 'go wild', so I do – but not that wild!'**

**Andy lost 1st 7lbs**

**Food labels**

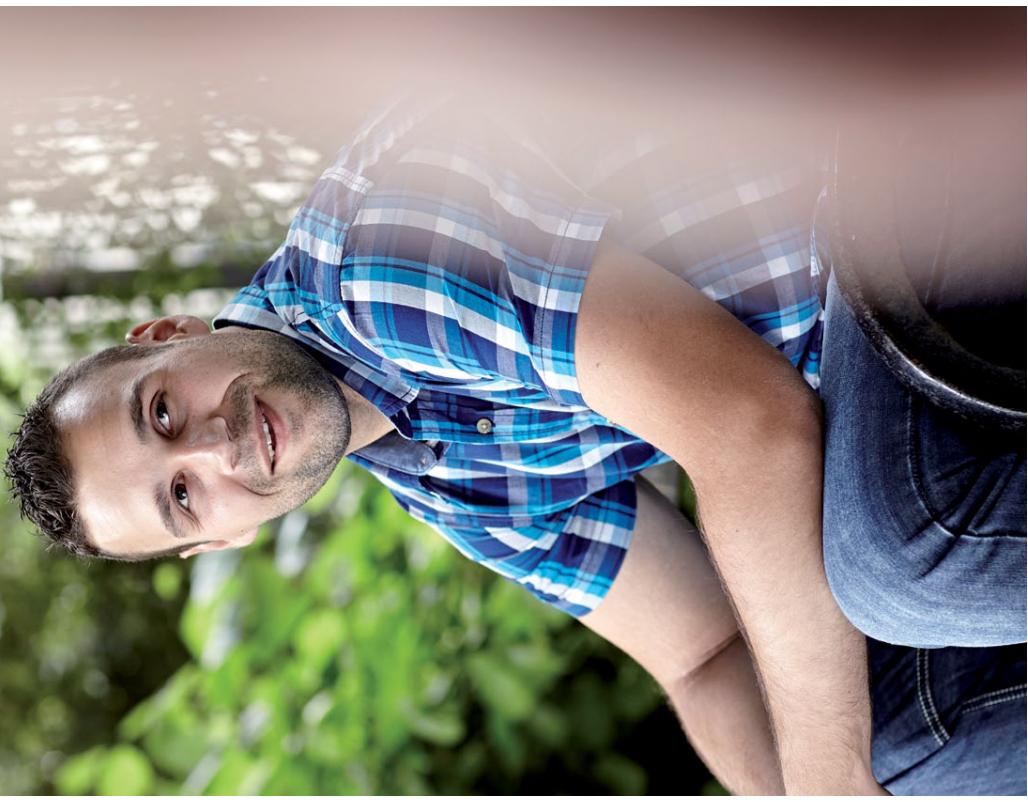
Getting to grips with food labels will help you compare products when you're shopping and make healthier choices to support your weight loss.

Most foods have a nutritional information panel either on the back or side of the pack. Find the 'per 100g' column, and then compare them with the figures shown in the box below to see whether it's low, medium or high.

All measures per 100g	Low	Medium	High
	A healthier choice	OK most of the time	Just occasionally
Sugars	5g or less	5.1g – 22.5g	More than 22.5g
Fat	3g or less	3.1g – 17.5g	More than 17.5g
Saturates	1.5g or less	1.6g – 5g	More than 5g
Salt	0.30g or less	0.31g – 1.5g	More than 1.5g

As well as looking at labels, here are a few more tips for successful food shopping:

- Write a list before you go – this will help you focus only on what you need and could save you time and money too.
- Never go shopping when you're hungry – you'll find it much easier to avoid temptation and just buy the foods you'd planned.
- Get smart about 'bargains' – we all love to save money, but if the special offers are on foods high in calories is it really worth it?



Eating out usually means we have little control over how food is prepared or how large the portion is. The food also tends to be high in fat, salt and sugar and the healthy choices are not that obvious. But there are some things you can do to reduce the impact on your weight loss goals, meaning having the odd meal out is unlikely to make a difference to your weight in the long run.

**TOP TIPS:**

- Ask to go 'skinny' on coffees and hot chocolate.
- Choose a scone or currant bun instead of a pastry, cream cake or chocolate muffin.
- If sandwiches are being made deli style, say no to extra cheese, mayo and sauces.
- Plan what you're going to eat before you go – some companies have online menus you can use to choose the healthier options.
- Portion sizes are often bigger when you're eating out so don't feel you have to finish what's on your plate. Share a starter or pudding rather than having your own.
- Ask for dressings and sauces on the side so you can decide how much to add and remember the 'extras' you add like cheese, sour cream and dressings can be high in fat and salt.
- Go for tomato or vegetable-based sauces and soups rather than cream, coconut or cheese-based ones.
- Choose plain boiled rice instead of fried and go for boiled or jacket potatoes rather than chips or wedges.
- Choose steamed or stir-fried options rather than deep-fried dishes – batter is off the menu!



**'The hardest part about losing weight is the time it takes – it's not overnight. My advice is to focus on yourself, make small goals and take realistic baby steps.'**

Emma lost 9st



- Think positive: Rather than concentrating on what you can't have, focus on ways to eat more healthily.
- Overcome obstacles with forward planning: Think how you will deal with challenging situations before they arise. For instance, if you are eating out you can check the menus beforehand to find a healthy option.
- Identify changes: Look over your goals and pick out what you need to do to achieve them or who might be able to help. For example, talking to your family, clearing out your cupboards, looking up some recipes or asking a friend at work to join you in lunchtime walks.
- Don't let one slip ruin your hard work – a lapse is not a collapse. If you break your plan for a few hours or days, it is not the end of the world. Try not to see your goals as 'all or nothing'. Learn from what went wrong and get back on track as soon as you are ready.
- Make sure you plan something (healthy) to reward yourself when you reach your goals (see page 89) – this will keep you going if it does get tough.

Start small: Small changes add up to a big difference and they don't need to be difficult.

<b>Small change</b>	<b>Calories (kcal) saved</b>
Leaving off the spread from a sandwich	57
Swap your croissant for a wholemeal fruit scone	60
Swap a chocolate covered biscuit for an apple	73
Swap a pint of semi-skimmed milk for skimmed	79
Instead of cheese (40g) on toast go for beans (80g)	101
Switching a can of fizzy drink to sugar free squash	127

For heart healthy recipes, sign up to our free Heart Matters service. You'll be able to access our online recipe finder and also receive our Heart Matters magazine which is full of great meal ideas.

You can also download our Healthy Heart Recipe Finder app to your iPhone or Android smartphone. It has over 100 recipes from all over the world and a handy shopping list feature. Go to [bhf.org.uk/heartmatters](http://bhf.org.uk/heartmatters) to find out more.

**'I try to focus on the real benefit for me, and what makes me feel good. I think that's the key thing.'**

Pam last 3st

As you know, changing your diet needs a lot of careful thought and effort. Often we know what we should be doing, but somehow find it difficult to stick to changes. That's not to say it's always an uphill battle, but there are some things you can do to make it a bit easier for yourself. Many of these things involve a little planning ahead or thinking about things differently. They all help you feel more in control of what you are trying to achieve. For a lot of people these 'behaviour changes' are the key to successful and permanent weight loss.

**The list below shows some simple actions which people have found helpful:**

- eating at the same time every day
- eating sitting down at the table
- do nothing else while eating (don't waste the calories – taste and enjoy them!)
- pause during meals and put your knife and fork down between mouthfuls
- shopping on a full stomach
- writing a shopping list and stick to it
- keeping healthy snacks easily to hand (e.g. fresh fruit in a bowl, chopped salad or vegetables in the fridge)
- cleaning your teeth after a meal or when you get the urge to overeat
- serving your meal straight onto a plate and remove serving dishes from the table so you're less tempted to eat too much
- practicing refusing offers to overeat – learn to say no thank you politely but firmly.



**Reward Yourself**

As well as things you can do differently, there are also ways you can teach yourself to think differently. Along with your food diary, using the suggestions below can help you get your 'mind over matter' and feel more in control of your weight loss.

**Real hunger or cravings**

A regular eating pattern is the best way to keep hunger at bay, but often you can experience a strong urge to eat, usually for a specific type of food such as a pudding after a very filling evening meal. Before you eat, check that you are really hungry rather than just eating at a certain time or occasion out of habit. Try waiting 20 minutes, if you aren't actually hungry these feelings will pass. Using distractions will also help you control your eating – make a phone call; do the washing up or clean your teeth.

**Feelings or triggers**

Be aware of how your feelings affect what you want to eat.

For example do you eat more when you are bored, lonely or upset? Noticing a pattern can help you plan how to cope. Identifying activities apart from food that you find comforting is one way round this problem. You could treat yourself to a new magazine or listen to your favourite music instead.

Rewards can make it more likely you will achieve your goals. They should not be food or drink and need not be expensive. Here are some suggestions that have worked for others:

- time to yourself such as a soak in the bath or sitting in the garden
- buy yourself a new magazine, item of make up, new DVD or video game
- take a trip to a cinema, theatre or art gallery
- have a manicure, pedicure or massage
- donate to your favourite charity.



I knew I was really overweight, but I didn't want to acknowledge it, so I just sort of forgot about it. But I got to a place where I knew if I got any bigger I would never be happy unless I started losing weight.

My friend is a personal trainer and she offered to help me, but because of an existing illness she said I needed to go to the doctor to get checked out before we started. I went and they gave me the BHF weight loss plan to do alongside the exercise.

I went home and read the plan and said 'right this is it – it's now or never'. So although I'd put on the weight gradually the decision to start losing weight was an overnight thing – everything had clicked into place.

The hardest part about losing weight is the time it takes – it's not overnight. I've lost nearly 9 stone now and sometimes it was hard to keep it going. But there's no way of getting round it – no weight loss is easy. And I know that I'm always going to have to watch what I eat.

Starting cycling really helped me. I set myself the goal of completing the BHF London to Brighton bike ride. My first 6 miles of training were awful – I hated every minute of it, puffing and panting. But after a while I started to really enjoy it. Now I can cycle 75 miles plus with no problem, it's become a social thing and my boyfriend and I go out for a ride as much as we can. We get to spend time together and it's so much better for me than sitting in a pub or on the sofa thinking about what I can eat.

My advice to others is to be your own inspiration – focus on yourself, make small goals, take realistic baby steps – if you don't you will go stir crazy. Embrace everything and then celebrate when you can. Even now I sometimes have to look in the mirror and tell myself that I've worked really hard to get where I am. And I've had great support – without it I would not be where I am now.

It's the small things like being comfortable wearing a dress that have made all the difference. And now I can do things I'd missed out on in the past like ride my horses, and I definitely wouldn't have found cycling if I hadn't lost the weight.

**Emma lost 9st**



This guide has mainly focused on how to reduce your calorie intake to help you lose weight, but you will know from page 14 that you can also lose weight by increasing the amount of calories you burn being active. Increasing your daily activity helps burn calories that would otherwise end up stored as fat. It also builds muscle. The more muscle you have the more energy your body uses when resting and the easier it is to lose weight.

Regular activity is a vital part of your weight loss journey – it's essential to maintain a healthy weight in the long term. Physical activity also improves your heart health and reduces the risk of developing heart disease, diabetes and some cancers. This is true no matter what weight you are or how much weight you lose as a result of being active.

For weight loss and heart health, you should aim to exercise daily and in total should be clocking up at least 150 minutes of moderate intensity activity every week – that's activity which involves moving different parts of your body, getting slightly breathless (but still able to talk) and becoming a little hot and sweaty.

This doesn't have to mean going to classes or taking up jogging. It's more about finding something which suits you – and which is safe and enjoyable. Aim to increase your activity levels gradually. Start by aiming for up to half an hour a day of moderate activity on at least five days of the week. Then build this up gradually to help with your weight loss.

#### **What activity should you do?**

You can build activity into your everyday life with a bit of thought and determination. Walking is particularly good because it doesn't cost anything and you don't need a membership or any special kit other than sensible shoes! People have found that taking the stairs instead of the lift (up as well as down), walking to the shops, cycling to work, digging the garden or playing outdoors with the children can make quite a difference.

If more structured exercise appeals to you – such as swimming, the gym or exercise classes – find out if your local leisure centre runs sessions at a time which suits you.

Our **Get active, stay active** booklet has information, tips and support to help you set some goals and build activity into your day – download or order for free at [bhf.org.uk/publications](http://bhf.org.uk/publications).

If you have any health problems, check with your doctor before starting a physical activity programme.

We also have an online physical activity calculator which is easy to use and a great way to see how all activity counts towards your weight loss – from daily chores to more intense activity like running or cycling. The table shows some examples, but go to [bhf.org.uk/calories](http://bhf.org.uk/calories) to get the results tailored to you.

Physical activity	Calories Burnt
Based on 40 year old weighing 11 stone (70kg)	Based on 60 year old weighing 14 stone (83kg)
10 mins walking up stairs	93
30 mins washing the car	157
30 mins mowing the lawn	192
30 mins of ironing	80
1 hour of golf	314
1 hour of light dog walking	196
30 mins light rowing machine	122
30 mins medium swimming	279
30 mins recreational badminton	314
30 mins medium walking	175
30 mins medium cycling	279
	406
	457
	254
	406

'I think you've got to choose something you enjoy, research it, and stick to it. To sustain it you need to be able to give yourself little rewards from time to time.'

Andy lost 1st 7 lbs





It's really important to track your progress so you can see how you are doing and check your progress against the S.M.A.R.T. goals you have set yourself. The chart on page 100 will help you to record everything.

**Monitoring your weight**

We recommend you keep a regular record of your weight. But don't be tempted to weigh yourself more than once a week.

Weigh yourself on the same scales and at the same time of day, without clothes if possible. Remember, you are looking for a gradual weight loss of 1-2 pounds (0.5-1 kg) per week.

There may be some weeks when you lose more weight than this and other weeks where your weight may stay the same or go up. There can be many reasons for this - being unwell, a special occasion, water retention or being more active - but by tracing everything you will be able to look back and see why this may have happened.

**Rewards**

Make sure you plan your non-food-based rewards (see page 89) to keep you going when it gets tough, and to give yourself a pat on the back when you get there. You can use them for reaching 'behaviour' goals as well as weight goals. Make sure you think about how you are going to reward yourself before you start your weight loss plan, as this will motivate you.

My friends were the ones who encouraged me to lose weight. They'd taken part in a weight loss programme and I saw their results. One went seriously into it, and now he looks younger and slimmer. If he can do it I can do it as well.

I've started exercising twice a week. The main thing I've learnt is that you've got to keep going at it. In the past I would always say 'I'm busy, I haven't got time!' I was always making excuses – but you can make time, you've got to put the effort in. You've just got to push yourself basically.

I've changed the way I'm eating. The hardest part was giving up the 'bad' foods, you know your children tend to like those kind of foods and it's temptation! But my advice would be to plan your way in – I've found preparing food that was a lot healthier does take more time, but if you have a menu ready for the week it makes life a lot easier, so you go home, you know what you're preparing, you've got the stuff there and ready for you.

I've lost just under a stone and 6cm from my waistline. It was quite hard going – I've still got quite a way to go but it's quite a loss for me.

Now I'm fitting into trousers that I haven't worn for years – I feel good that I'm back into some of my old jeans, and when a lot of friends come up to you it boosts your confidence even more – all those things have definitely encouraged me.

So I would say just don't give up, keep trying. If you keep going you'll eventually succeed. A lot of people say 'I can't do it' – but there's no way you can if you don't try.

**Rif lost 13 lbs**



## PROGRESS CHART

You can record your achievements after each week or just every month, whichever you prefer.

This progress chart is only for 8 weeks (2 months) – when you finish it, you can download and print another chart from [bhf.org.uk/factsnoffad](http://bhf.org.uk/factsnoffad)

Some people say losing weight is not that difficult, it's keeping it off that's the hard bit!

If you have a tendency to gain weight, you'll always need to keep an eye on your weight.

**To keep to a healthy weight or to prevent weight gain:**

- keep following the rules of the eatwell plate – you may find that it becomes easier over time and that filling up on foods from the main four food groups leaves you with less space for the high-calorie ‘fatty and sugary foods’
- remind yourself how good it feels to have reached some of your goals
- if your weight goes up a bit, don't despair: By reassessing things, making a few small changes, and getting support, you will start to lose a few pounds again.



I was about 15 years old when someone gave me a diet book. At the time I didn't realise anyone thought of me as overweight, and when I look back at pictures I wasn't! But I started being conscious of what I ate.

From then on I yo-yo dieted, but a couple of years ago I made a lasting change – I lost three stone and I've kept it off.

One of the key things was recognising how I feel and how that affects how I eat. Thinking 'what do you really need? Do you need a box of chocolates, or do you need to cry, or do you need a hug?' For exercise what I've tried to do is find things that I really enjoy, the stuff that I'd do even if there wasn't anyone crackling the whip. I think you need to make sure you're going to the gym because you want to feel good and you want to live longer and be healthier – focus on the real benefit for you. That's the key thing.

One of the biggest challenges is other people's expectations – 'oh go on, treat yourself, live little!' It's important to find ways to feel strong in yourself, to not give in just because it's what somebody else wants for you when it isn't what you want for you. Concentrate on doing it because you're the one who wants to do it and this is good for you.

I know I'm always going to have to have my eye on the ball. It can sound a bit pessimistic but realistically I can't ever just say 'I'm not going to think about how I feel or what I'm eating and now that I'm thinner I can just live my life.' That's what I've done before and I've just put the weight back on.

But there are definitely things about the way I eat and the way that I feel and the way I react to things that I have changed for good. I'm not forcing myself; it's just that's the way I do it now. It's about making habits that stick.

**Pam lost 3st**





## OTHER OPTIONS

If this weight loss plan isn't working for you, there are some commercial and self-help alternatives available that meet best practice guidelines and may suit you better.

If you need more personal, face to face support you may want to join a commercial group such as Weight Watchers, Slimming World or Counterweight. These may be available as weight loss programmes on prescription in your area – talk to your doctor about this.

There are also a number of online options – including the NHS Choices 12 week weight loss plan.

If you do decide to try something different, make sure:

- the weight loss offered is realistic
- it provides complete nutrition (it doesn't miss any food groups out)
- it gives support and education
- you discuss it with a healthcare professional like your GP or a dietitian.

### Need more help?

If you would like help from someone who can talk through your weight loss plan personally, ask your doctor to refer you to a dietitian, or talk to your practice nurse.

There are also some websites where you can get more help and information:

[www.bdaweighwise.com](http://www.bdaweighwise.com)

[www.weightconcern.org.uk](http://www.weightconcern.org.uk)

[www.nhs.uk/livewell/loseweight](http://www.nhs.uk/livewell/loseweight)

# JOIN THE FIGHT

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- Set up a direct debit, give a gift in memory or leave a gift in your Will at [bhf.org.uk/donate](http://bhf.org.uk/donate)
- Take part in one of our events [bhf.org.uk/events](http://bhf.org.uk/events)
- Give to your local BHF shop or become a volunteer [bhf.org.uk/volunteer](http://bhf.org.uk/volunteer)

## YOUR WEIGHT LOSS PLAN – QUICK GUIDE

Food group	1,500 kcal (women)	1,800 kcal (men)
Fruit & vegetables	5 or more portions	5 or more portions
Bread, rice, potatoes, pasta and other starchy foods	7 portions	8 portions
Milk and dairy foods	3 portions	3 portions
Meat fish, eggs, beans and other non-dairy sources of protein	2 portions	3 portions
Spreading fats, oils, dressings & sauces	2 portions	3 portions
High fat/high sugar foods and alcohol	Up to 100 kcal	Up to 200 kcal

### Portion size guides

- Fruit and vegetables – page 42
- Starchy foods – page 48
- Milk and dairy – page 52
- Meat fish and other protein foods – page 58
- Fats, oils, sauces and dressings – page 62
- Foods high in fat or sugar – page 64



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Coronary heart disease is the UK's single biggest killer.

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# Successful Weight Loss Maintenance

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# SUCCESSFUL WEIGHT LOSS MAINTENANCE

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**Key Words** reduced-obese, obesity treatment, diet, exercise, obesity

**Abstract** Obesity is now recognized as a serious chronic disease, but there is pessimism about how successful treatment can be. A general perception is that almost no one succeeds in long-term maintenance of weight loss. To define long-term weight loss success, we need an accepted definition. We propose defining successful long-term weight loss maintenance as intentionally losing at least 10% of initial body weight and keeping it off for at least 1 year. According to this definition, the picture is much more optimistic, with perhaps greater than 20% of overweight/obese persons able to achieve success. We found that in the National Weight Control Registry, successful long-term weight loss maintainers (average weight loss of 30 kg for an average of 5.5 years) share common behavioral strategies, including eating a diet low in fat, frequent self-monitoring of body weight and food intake, and high levels of regular physical activity. Weight loss maintenance may get easier over time. Once these successful maintainers have maintained a weight loss for 2–5 years, the chances of longer-term success greatly increase.

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## INTRODUCTION

Obesity is a major health problem in the United States, with over 50% of Americans classified as overweight or obese. Many of these individuals are attempting to lose weight (39). However, the perception of the general public is that long-term reduction in body weight is difficult to achieve. The goal of this chapter is to summarize the information available on successful weight loss maintenance. How many achieve this goal? How do they do it? What are the consequences? In describing successful weight loss maintainers, we draw heavily on findings from the National Weight Control Registry (NWCR), a registry of individuals who have been extremely successful at long-term weight loss maintenance.

## PREVALENCE OF WEIGHT LOSS MAINTENANCE

Currently, few data are available on the prevalence of successful weight loss maintenance. One limit is the lack of a consistent criterion to define “success” and another is the difficulty of distinguishing intentional from unintentional weight loss. We therefore propose to define success in weight loss maintenance as achieving an intentional weight loss of at least 10% of initial body weight and maintaining this weight loss for at least one year. We could not find sufficient data, collected in a systematic fashion, to provide reliable information on predictors of weight loss for longer periods.

Overall there is a feeling of pessimism regarding long-term weight loss success (18). This pessimism started with a study by Stunkard & McLaren-Hume (42), who followed 100 obese individuals referred to a nutritional weight loss program and found that 2 years after treatment, only 2% maintained a weight loss of at least 20 lb. This finding was instrumental in creating the perception, perpetuated in the popular media, that hardly anyone succeeds in long-term maintenance of weight loss.

Recent studies of clinical programs are more positive. Every year for 4 years, Kramer et al (24) followed up on 114 men and 38 women who had participated in a behavioral weight loss program. Using a strict criterion of maintaining 100% of one's weight loss, they found that only 0.9% of men and 5.3% of women were consistently successful (i.e. maintaining this criterion all of the 4 years). However, looking only at year 4, cross-sectional data showed that 2.6% of men and 28.9% of women had maintained 100% of their weight loss. Several studies have used 5 kg or greater weight loss as a criterion of success. With this criterion, 13% (51) to 22% (41) of participants are successful 5 years after treatment.

These studies may underestimate the true prevalence of weight loss maintenance because they are based on only one episode of weight loss and may not be

representative of the general population. Most people who lose weight do so on their own, without participation in formal programs (5, 6); thus, data from clinical research programs may reflect “hard core” dieters, who may be most resistant to successful weight loss maintenance. Bartlett et al (4) reviewed eight studies that examined the prevalence of successful weight loss in community samples; they were unable to reach conclusions regarding prevalence because these studies lacked consistent definitions of successful weight loss and many failed to use nationally representative samples. Moreover, most of the studies assessed weight loss, not weight loss maintenance.

McGuire et al (27) recently reported results of a random-digit-dial telephone survey in a nationally representative sample of 500 adults in the United States. Weight loss maintainers were defined as those who at the time of the survey had maintained a weight loss of  $\geq 10\%$  of their maximum weight for at least 1 year. Of particular interest are those who reported being overweight [body mass index (BMI)  $\geq 27 \text{ kg/m}^2$ ] at their maximum weight ( $N = 228$ ). Of these, 62% indicated that at some point in their life they had lost 10% of their maximum weight, and 38% reported that they were currently 10% below their maximum weight. Of the 228 reporting having been overweight, 69 (30.3%) had maintained this 10% weight loss for at least 1 year. These 69 individuals had on average maintained a weight loss of 42 lb for 7 years.

This survey included a question about whether the weight loss was intentional. Of the 228 overweight individuals in the survey, 47 (20.6%) reported that they had intentionally lost weight and had maintained a weight loss of 10% for at least 1 year. Of these individuals, 28 had reduced to normal weight (BMI  $< 27$ ).

## HOW TO DEFINE SUCCESS IN WEIGHT LOSS MAINTENANCE?

It is important to adopt a consistent definition of successful weight loss maintenance. The definition must include criterion for magnitude of weight loss and duration of maintenance. Weight losses of 5%–10% of initial body weight can lead to substantial improvement in risk factors for diabetes and heart disease and can lead to reductions in or discontinuations of medications for these conditions (31). Thus, if the focus is on overall health, achieving and maintaining a 10% weight loss should be considered successful, even though for many obese individuals this weight loss may not return them to a nonobese state. Successful weight loss maintenance may involve some weight regain. For example, an individual who lost 20% of initial body weight but regained half of the lost weight would still be 10% below initial body weight, would presumably still have overall improved health, and thus should be considered “successful.”

In defining successful weight loss, it is important that the loss be intentional. Several recent studies suggest that unintentional weight loss occurs frequently in the population. Because the causes and consequences of unintentional weight loss

are likely to differ from those associated with intentional weight loss, it is important to distinguish between the two.

Finally, we propose that 1 year of maintenance be the minimum criterion, in keeping with the Institute of Medicine (IOM) definition. A 5-year duration might be a stricter criterion, but we believe research would be stimulated by first adopting the 1-year criterion and then studying the factors that help those individuals who have succeeded for 1 year sustain their success through 5 years.

Thus, we propose that individuals who have intentionally lost at least 10% of their body weight and have kept it off at least 1 year be considered “successful weight loss maintainers.” By this definition, according to our data, 21% of overweight/obese persons may be successes.

## THE NATIONAL WEIGHT CONTROL REGISTRY

Much of the information about successful weight loss maintenance comes from the National Weight Control Registry (NWCR), founded in 1994 to study weight loss and weight maintenance strategies of successful weight loss maintainers. To be eligible for the NWCR, individuals must have maintained at least a 30-lb weight loss for at least 1 year. On recruitment, all subjects sign an informed consent form and then are sent several questionnaires to complete. These questionnaires seek information about weight loss and weight maintenance behaviors, as well as weight history, quality of life, and demographic information. All participants are asked to complete additional follow-up questionnaires on an annual basis.

There are currently over 3000 subjects in the NWCR. They average 45 years of age and are 80% women, 97% Caucasian, and 67% married. The average weight loss reported by NWCR participants is 30 kg, and the average duration of weight maintenance is 5.5 years. These subjects maintain a body weight that is, on average, 10 BMI units lower than their pre-weight loss BMI (from 35–25 kg/m<sup>2</sup>).

About half (46%) of NWCR subjects report having been overweight as children. Many report a strong family history of obesity, with 46% reporting one parent as overweight or obese and 27% reporting both parents as overweight or obese.

Almost all NWCR subjects (90%) have experienced previous unsuccessful attempts at weight loss. No obvious factor or factors distinguish this successful weight loss from previous failures other than registry participants noting a greater commitment, stricter dieting, and a greater role of exercise.

Clearly, a negative energy balance is needed to produce weight loss. A negative energy balance can be achieved by either decreasing intake or increasing expenditure. Research studies consistently show that successful weight loss maintainers change both their intake and their expenditure in order to lose weight and maintain their losses. In the NWCR, 89% of participants reported modifying both diet and exercise to achieve their successful weight loss (22). In subjects who reported modifying food intake to lose weight, the most commonly reported methods were restricting intake of certain types or classes of foods (88%), limiting quantity

(44%), and counting calories (44%). However, there was marked variability in how they made these changes. About half of the registry participants (45%), but 63% of the men, reported losing on their own whereas the remainder of the registrants (55%), and 60% of the women, used a formal (e.g. commercial) weight loss program (22).

Although most health professionals recommend changes in both diet and physical activity for weight loss, many popular weight loss plans emphasize diet more than physical activity. It is worth noting that very few of these successful weight loss maintainers used diet alone to lose weight.

## STRATEGIES FOR MAINTENANCE OF WEIGHT LOSS

Although the approaches to weight loss differed widely among NWCR subjects, we found much more similarity in the strategies used for maintenance of weight loss. The three strategies that were common to a large proportion of NWCR participants include (*a*) eating a diet low in fat and high in carbohydrate, (*b*) frequent self-monitoring, and (*c*) regular physical activity.

### Diet

To determine current dietary intake, registry members were asked on entry into the registry to complete the Block Food Frequency questionnaire. On average, participants reported consuming 1381 kcal/day ( $5778 \pm 2200$  kJ/day), with 24% of calories from fat, 19% from protein, and 56% from carbohydrates (22). There were no differences in the quality of the diet reported by participants who lost weight on their own compared with those who used weight loss programs (40). Both groups ate a diet that satisfied the Daily Reference Intakes for calcium, vitamin C, vitamin A, and vitamin E.

Recently, because some popular diets recommend restricting carbohydrates to lose weight, data from registry participants were analyzed to determine carbohydrate intake (57). Only 7.6% of registry members reported eating fewer than 90 g of carbohydrate/day; for many of these individuals, total daily energy intake appeared unreasonably low. Additional analyses were done to determine the proportion of subjects eating diets with <24% carbohydrates (1500 calories/ $\leq 90$  g of carbohydrate). Less than 1% of registry participants consumed such low-carbohydrate diets. Compared with registry members who had higher carbohydrate intake, those ingesting <24% carbohydrates maintained their weight loss for less time and were less physically active. Thus, the low-fat, high-carbohydrate, low-calorie-eating pattern appears to be what characterizes the majority of registry participants.

Registry members reported eating on average 4.87 meals or snacks/day, with few eating less often than twice a day (22). On average, they ate at fast food restaurants approximately once a week (0.74 times/week) and had 2.5 meals/week in other types of restaurants. Thus, although the majority of meals were eaten

at home, these individuals maintained their weight loss while enjoying meals at restaurants.

As part of the random-digit-dialing survey described above, successful weight loss maintainers (those who intentionally lost  $\geq 10\%$  of their maximum weight and maintained it for at least 1 year) were compared with regainers (those who lost at least 10% of their body weight but gained it back) and controls (those whose weight had never been  $\geq 10\%$  above their current level and who were weight stable) (29). These individuals were all asked to complete the Food Habits Questionnaire. This questionnaire examines strategies used to restrict fat intake and has been shown to relate to fat intake. Weight loss maintainers reported greater avoidance of fried foods and more substitution of low-fat for high-fat foods than either regainers or controls. Again, these findings suggest the importance of low-fat eating in the maintenance of weight loss.

Other studies have shown that successful weight loss maintenance is associated with changes in both the quantity and quality of foods consumed. Clinic-based studies have examined the association between self-reported dietary intake and weight loss after either 12 or 18 months of treatment. These studies indicate that individuals who are most successful at weight loss maintenance report lower caloric intake (19), reduced portion sizes (17), reduced frequency of snacks, and, perhaps most consistently, reduction in the percentage of calories from fat (11, 55).

Several studies have identified decreased consumption of specific foods as being associated with weight loss maintenance. French et al (8) found that decreased consumption of french fries, dairy products, sweets, and meat was positively associated with weight loss maintenance. Holden et al (15) present data on 118 patients who were followed for 3 years after ending a very-low-calorie diet. Those who reported that they consumed cheese, butter, high-fat snacks, fried foods, and desserts less than once a week were more successful at long-term weight control. Eating “healthy” foods at least once/week was unrelated to weight loss.

## Self-Monitoring Weight and Behaviors Related to Weight

Registry members were asked how frequently they monitored their weight. Over 44% reported weighing themselves at least once a day, and 31% reported weighing themselves at least once a week (22). Few other studies have examined weighing as a component of long-term weight loss maintenance. However, monitoring dietary intake is frequently associated with weight loss success. Guare et al (10) completed a 1-year follow-up on 106 participants in behavioral weight loss programs. Those participants who at 1 year most frequently monitored their intake maintained a weight loss of 18 kg compared with the approximately 5-kg weight loss maintained by those who monitored their intake less often. Other studies have likewise found that consistent self-monitoring is related to weight loss (3). This is not surprising. Frequent monitoring of weight allows one to detect weight regain in its early stages and to initiate strategies to reverse the trend and avoid a major relapse.

Self-monitoring may be viewed as one component of the more general construct of cognitive restraint (i.e. the degree of conscious control one exerts over eating behaviors). On the Three Factor Eating Scale, registry members report high levels of dietary restraint (mean = 7.1), similar to the levels reported by patients who have recently completed treatment for obesity, though not nearly as high as the levels seen in eating-disordered patients (23). These data suggest that successful maintainers continue long-term to use behavior-change strategies taught in weight loss programs. However, why some individuals can persist in conscious control of intake whereas others revert back to old habits is unclear.

## Physical Activity

Regular physical activity has been found in many studies to be associated with long-term weight loss maintenance (20, 37). Most subjects in the NWCR report engaging in regular physical activity to lose weight as well as to maintain the weight loss. Only 9% of registry subjects report maintaining weight loss without regular physical activity. Using the Paffenbarger Physical Activity Questionnaire (33), we determined current levels of physical activity. Women in the registry report expending an average of 2545 kcal on physical activity per week and men report an average of 3293 kcal/week. This amount of physical activity is comparable to about 1 h of moderate intensity physical activity, such as brisk walking, per day. This is much higher than physical activity recommendations for the general public. The Surgeon General recommends that adults engage in 30 min of moderate intensity physical activity at least 3 days/week (46). Among registry subjects, 52% expend more than 1000 kcal and 72% more than 2000 kcal on physical activity per week.

Physical activity experts now recommend that rather than only planned exercise, people increase "lifestyle physical activity," which involves being more active in daily life (e.g. increase walking, taking stairs, etc) (46). Most registry subjects report efforts to increase both lifestyle activity and regular planned exercise. As noted above, only 9% report that they do no physical activity for weight loss maintenance. Among registry members, 49% report using a combination of walking and another form of regular exercise, 28% report only walking, and 14% report only another form of regular exercise. Thus, the combination of lifestyle and programmed exercise is used by almost half the participants, and walking is an important aspect of the exercise for over 75%.

Table 1 shows the six most frequently reported physical activities of subjects in the registry (45). It is interesting that a high proportion of subjects report weight lifting. In the registry, 24% of men and 20% of women regularly engage in weight lifting. A representative national population, the National Health Interview Survey, conducted in 1991, reported that 20% of men but only 9% of women regularly engage in weight lifting. Thus, women in the registry engage in weight lifting to a much greater extent than do women in the general population. The extent to which this contributes to their success in weight loss maintenance is not clear.

**TABLE 1** The six most common activities reported by National Weight Control Registry subjects

Activity	% Reporting engaging in activity
Walking	76.6
Cycling	20.6
Weight lifting	20.3
Aerobics	17.8
Running	10.5
Stair climbing	9.3

## METABOLIC AND BEHAVIORAL FACTORS IN WEIGHT LOSS MAINTENANCE

It is not clear to what extent metabolic versus behavioral factors contribute to the low success rate in long-term weight loss maintenance. It could be that there is a physiological set-point for weight and that reducing weight below this level leads to physiological compensation. Alternatively, the difficulty in maintaining a weight loss could be due to the difficulty in making permanent changes in diet and physical activity behaviors.

### The Metabolic State of the Reduced-Obese

The difficulty in long-term weight maintenance could have metabolic causes. It is possible that weight loss creates a metabolic state favoring weight regain in order to return body weight to some optimal or regulated level. This metabolic state could be due to one or more of the following causes: (a) a resting metabolic rate lower than expected for the new, lower body weight; (b) a reduced ability to oxidize fat, thus favoring positive fat balance and fat gain; (c) increased insulin sensitivity; and/or (d) relatively low leptin levels.

***Low Resting Metabolic Rate in the Reduced-Obese State*** Resting metabolic rate (RMR) declines with weight loss, but the question is whether this decline leaves the reduced-obese with an inappropriately low RMR or whether the decline in RMR is appropriate for the new, lower body mass. During the acute phase of weight loss, RMR appears to decline because of both food restriction and loss of body mass (35, 50). This is why it is important to measure RMR after a period of weight stabilization following weight loss. In the long-term, the decline in RMR would be expected to be proportional to the decline in fat-free mass (FFM) because fat loss produces only very small declines in RMR (35).

Some reports indicate that RMR declines with weight loss to a much greater extent than the decline in FFM, whereas other reports indicate that the decline

in RMR with weight loss is appropriate for the reduction of FFM. In favor of a greater-than-expected drop in RMR with weight loss, Leibel et al (26) reported a reduction in resting metabolic rate of 12.6–16.7 kJ/kg of FFM lost in obese subjects maintaining a 10% reduction in body weight. Others (9, 38, 50) have found that the reduction in RMR with weight loss, over the long-term, is appropriate for the reduction in body mass. Astrup et al (2) recently published a meta-analysis of RMR in reduced-obese subjects. They reviewed 12 published studies and obtained individual data on 124 reduced-obese subjects and 121 control subjects from 15 different published studies. Using traditional meta-analysis, they found that RMR was about 5% lower in reduced-obese subjects than in control subjects. However, the more interesting analysis was a comparison of the 124 reduced-obese with the 121 control subjects. In this comparison, RMR was not significantly lower in the reduced-obese ( $P < 0.09$ ). Furthermore, the 3%–5% reduction in RMR seen in the reduced-obese group was explained entirely by 15% of the reduced-obese subjects. They suggested that although a low RMR might characterize some reduced-obese subjects, this is not the norm.

We examined RMR in relation to FFM in 50 NWCR subjects and in 50 matched control subjects (56). In both groups, RMR was appropriate for body composition and there was no evidence of a lower-than-expected RMR in NWCR subjects. The regression line relating FFM and RMR was not different for the two groups, which suggests that RMR in our reduced-obese subjects was not inappropriately low.

It is possible that the extremely high levels of physical activity seen in NWCR subjects may be masking a low RMR. Van Dale et al (48) found that subjects who engaged in regular exercise during and following weight loss had a “normal” RMR relative to body mass, whereas those who did not exercise had a lower-than-predicted RMR relative to body mass. It should be noted, however, that in our study (56), the matched control subjects were reporting high levels of physical activity, similar to those reported by NWCR subjects.

The controversy in this area continues. In NWCR subjects, we failed to find any evidence of a greater “metabolic efficiency” or a “metabolic impairment.” Although increased metabolic efficiency might occur in some subjects, it does not seem to be an obligatory consequence of weight loss. It is possible that some of the differences between studies may reflect heterogeneity between reduced-obese subjects. It is also likely that other methodological issues contribute to different results. We know little, for example, about how the method of weight reduction (large versus small deficit, exercise versus no exercise), the amount of weight loss, or the duration of weight loss maintenance affect the metabolic state of the reduced-obese individual. Part of the problem has been getting access to enough long-term successes to study how these factors impact metabolism after weight loss.

**Fat Oxidation in the Reduced-Obese State** Because achieving body weight maintenance requires achieving fat balance, an alteration in the ability to use fat as a fuel could be a factor in predisposing reduced-obese subjects to regain weight. Given that it is affected by many dietary factors and by physical activity,

assessment of substrate oxidation is not easy. Several investigators have reported that reduced-obese subjects may have a higher respiratory quotient (RQ), indicative of a lower rate of fat oxidation, than do control subjects. Larson et al (25) reported a higher adjusted 24-h RQ in formerly obese subjects than in matched control subjects who had not lost weight. Astrup et al (1) found lower rates of fat oxidation in formerly obese subjects compared with controls while both groups were consuming high-fat diets.

In the NWCR we found registry members had a slightly higher (0.807 versus 0.791,  $P = 0.05$ ) fasting RQ than a control group of nonreduced individuals (56). However, the usual diet NWCR subjects reported consuming was lower in fat than that of the control subjects. Because usual fat oxidation is positively correlated with usual fat intake, it is not clear whether the lower fat oxidation seen in NWCR subjects reflects an altered metabolic state or simply an altered diet.

Thus, although there are consistent reports of a higher RQ (i.e. lower fat oxidation) in reduced-obese subjects, the question remains as to whether this indicates an impairment in or a reduced capacity for fat oxidation. It remains a distinct possibility, however, that a low rate of fat oxidation in reduced-obese subjects could predispose them to weight gain, especially when they consume high-fat diets.

***Insulin Resistance as a Contributor to Weight Regain*** The role of insulin resistance in weight gain is also controversial. Several studies have shown that within a population, those who are most insulin sensitive at baseline will gain the most weight (13, 43, 47), although this finding is not consistent across all populations (14). Similarly, there are inconsistent findings related to whether insulin sensitivity predicts weight regain. Yost et al (59) reported that in 10 moderately obese women, changes in insulin sensitivity (determined using a euglycemic clamp) following a 3-month period of weight loss and a 3-month period of weight maintenance were positively correlated with subsequent weight gain at 12 and 18 months. The authors hypothesized that the increased insulin sensitivity produced a decrease in skeletal muscle lipid oxidation, directing lipid toward storage in adipose tissue. In contrast, Wing (53) examined this relationship in two groups of subjects who participated in a 3- to 6-month weight loss program. In 125 nondiabetic subjects, changes in neither fasting insulin nor insulin levels in response to a glucose load were significantly related to subsequent weight regain. Similarly, insulin sensitivity measured using Bergman's minimal model was not related to subsequent weight regain in 33 diabetic subjects. The inconsistency across studies may relate to differences in study population, methods of assessing insulin sensitivity, and/or duration of the weight maintenance phase. Furthermore, all the studies reported changes in body weight (rather than fat mass), and none reported changes in physical activity levels, an important determinant of insulin sensitivity. Thus, whether insulin sensitivity plays a role in weight regain following a period of weight loss remains to be determined. Studies of rats provided with an obesity-producing diet have not, in general, found insulin sensitivity to predict weight gain (34). Currently we have no data on insulin sensitivity among NWCR subjects.

**Low Leptin as a Factor in Weight Regain** It has recently been suggested that low leptin levels may exist in reduced-obese subjects and may be a factor in propensity to regain weight (7). In this study, leptin levels were positively correlated with body fat mass in a group of eight reduced-obese and eight control subjects. However, leptin levels were lower in the reduced-obese subjects. Reduced-obese subjects also had a lower rate of fat oxidation than did the control subjects. Nagy et al (30), however, found the leptin levels were not related to weight regain over a 4-year period in 14 postmenopausal women. Furthermore, Wing et al (55) reported that leptin levels decreased along with body weight during obesity treatment and that neither baseline levels nor changes in serum leptin predicted weight regain. Leptin levels drop with weight loss, and the initial drop may be greater than the drop in fat mass (36). The important question for weight loss maintenance is whether the relationship between circulating leptin levels and body fat mass is altered significantly from baseline after weight loss and weight stabilization. It is important to point out that the question can only be answered if a period of weight stabilization precedes measurements. We are currently collecting data on circulating leptin levels in NWCR subjects.

### The Metabolic State of NWCR Subjects

In summary, we have not been able to document a clear metabolic state consistent with the notion of increased “metabolic efficiency” in reduced-obese subjects. It is certainly possible that the high levels of physical activity seen in NWCR subjects may be “masking” this metabolic predisposition to regain weight. Alternatively, it is possible that NWCR subjects do not exhibit such a metabolic predisposition and that their success is due to permanent behavior changes of the kind generally recommended in weight loss programs.

### Behavioral Factors in Long-Term Weight Loss Maintenance

Although we have not clearly identified metabolic factors important for long-term weight loss maintenance, we have identified behavioral factors that seem to predict success. These include eating a diet low in fat, self-monitoring body weight and food intake, and engaging in high levels of physical activity. We believe that the current population recommendations to reduce dietary fat are consistent with success in weight loss maintenance. Our subjects report 24% of total energy from fat, and many recommendations to the public are to reduce dietary fat below 30%. It is possible that a recommendation of 25% of energy from fat would be a better recommendation for persons maintaining a weight loss, but insufficient data exist to support such a public health recommendation. Our data would, however, argue strongly against any increases in the amount of dietary fat recommended to the public.

Self-monitoring has been recognized as a useful behavior during weight loss, and data obtained from the NWCR suggests that this is a useful behavior to continue during weight maintenance.

Finally, high levels of physical activity seem to be associated with long-term weight maintenance. Although the exact way in which physical activity helps with successful weight loss maintenance is not fully understood, it does seem that a high degree of regular physical activity is a key to the success of the subjects in the registry. Data from the NWCR suggest that the optimal amount of physical activity to maintain weight loss may be about 1 h/day, or an expenditure of approximately 2500–3000 kcal/week. Others have reported results similar to these. Schoeller et al (37) found that the relationship between the amount of physical activity and the prevention of weight regain was not linear. They found that a threshold value of 11 kcal/kg of body weight was necessary to prevent weight regain. This value roughly translates into the addition of 1.3 h of such moderate activity as brisk walking per day, or 0.6 h of vigorous activity per day. More recently, Jakicic et al (16) found that after weight loss, 200 min or more of physical activity per week was associated with continued weight maintenance, whereas less physical activity was associated with weight gain in a dose-dependent fashion.

Taken together, this body of literature in obese-reduced subjects suggests that our physical activity goals for weight management programs may need to be substantially higher than the physical activity recommendations to the general population. It is important to realize that the current physical activity guidelines for the population were developed to optimize cardiovascular health and were not based on prevention of weight gain. Although we have substantial data to suggest that regular physical activity protects against weight gain in nonobese individuals (12), we do not have a good database on which to develop specific physical activity guidelines to prevent weight gain. Developing such a database should be a high priority.

## PSYCHOLOGICAL CONSEQUENCES OF SUCCESSFUL WEIGHT LOSS MAINTENANCE

Concern has been raised that weight loss, and the vigilance required to maintain weight loss long-term, may be associated with increased risk of eating disorders or depression symptomatology. This concern stems in large part from the study by Keys et al (21) of semistarvation in normal-weight young men. In their study, weight losses of approximately 25% of initial weight were achieved in these normal-weight individuals. Such weight losses were associated with extreme negative psychological reactions and, in a subgroup, short periods of binge eating. The important question is whether the more-modest weight losses (10% of body weight) that typically occur in overweight persons produce such negative effects. This literature was recently reviewed by the National Task Force on the Prevention and Treatment of Obesity (32). They concluded that participants in behavioral weight loss programs typically experience improvements in symptoms of depression or anxiety with weight loss, regardless of whether the weight loss is produced by moderate diets, very-low-calorie diets, or weight loss medications.

Before weight loss programs, participants typically report levels of dysphoria in the nondepressed range; these levels are further reduced with weight loss. Binge eaters, who enter treatment with higher levels of depressive symptomatology, experience greater improvements with weight loss. Likewise, both binge eaters and nonbinge eaters who participate in weight loss programs that utilize a balanced diet with moderate caloric restriction experience reduction in binge eating episodes. Rather than precipitating binge eating (a common concern), such programs appear to ameliorate this problem. Three studies (44, 49, 58) have evaluated the effect of very-low-calorie diets and subsequent refeeding on binge eating. In two of the three (49, 58), there was no adverse effect of the very-low-calorie diet on binge eating, but the third study did suggest a temporary increase in binge eating in those who were nonbingers at baseline (44). Methodological issues related to the assessment of binge eating in this study make it difficult to interpret the results.

Likewise, no adverse psychological effects of weight loss have been observed in the NWCR (23). At entry into the registry, members are asked to complete the Center for Epidemiologic Studies Depression Scale (CES-D), the Symptom-Checklist-90-R, and selected questions from the Eating Disorders Examination related to binge eating and purging. Scores on these assessments were compared with findings in the literature for relevant comparison groups (including those with psychiatric disorders, obese patients, nondieting control subjects, and random samples of the US population).

Registry participants reported an average CES-D score of 9.2 (range 0–52); 18% of registry participants scored >16, the cutoff used to distinguish “cases” for nondepressed individuals. These findings are similar to nondepressed community control subjects (who have mean CES-D scores of 4.1–10.4, with 21% of individuals reporting scores >16). In contrast, studies of clinically depressed patients have mean scores of 13–38 on the CES-D, with over 70% of individuals scoring >16. Registry participants also appear similar to obese and nonobese community samples on the Global Symptoms Index of the SCL-90-R.

Rates of binge eating and vomiting were also very low in registry members; 8% reported four or more binges/month, and only 1.8% reported any episodes in the preceding month of vomiting for weight loss purposes. These results are strikingly lower than what is observed in eating-disordered populations.

In addition, participants in the registry are asked to indicate whether weight loss has resulted in improvement, worsening, or no change in various aspects of their life (22). As shown in Table 2, the vast majority of individuals report positive changes in all aspects. Over 90% of the sample reported improvement in their overall quality of life, level of energy, mobility, general mood, and self-confidence.

There are only two areas where any substantial worsening due to weight loss was noted. Fourteen percent of registry members reported worsening in time spent thinking about food (49% reported improvement in this regard) and 20% reported worsening in time spent thinking about their weight (51% reported improvement in this regard). Thus overall weight loss maintenance appears to produce marked improvements in quality of life for the majority of individuals.

**TABLE 2** Effect of weight loss on other areas of life<sup>a</sup>

Determinant	Improved	No difference	Worse
Quality of life	95.3	4.3	0.4
Level of energy	92.4	6.7	0.9
Mobility	92.3	7.1	0.6
General mood	91.4	6.9	1.6
Self-confidence	90.9	9.0	0.1
Physical health	85.8	12.9	1.3
Interactions with			
opposite sex	65.2	32.9	0.9
same sex	50.2	46.8	0.4
strangers	69.5	30.4	0.1
Time spent interacting with others	59.1	39.6	1.3
Job performance	54.5	45.0	0.6
Other hobbies	49.1	36.7	0.4
Interactions with parents	32.8	65.0	2.2
Interactions with spouse	56.3	37.3	5.9
Time spent thinking about			
food	49.1	36.7	14.2
weight	51.0	28.6	20.4

<sup>a</sup>N = 784. Results indicate percentage.

## FACTORS ASSOCIATED WITH WEIGHT REGAIN

Registry members are followed over time to try to identify variables related to continued success (28). Over 1 year of follow-up, 35% of registry participants regained 5 lbs or more, 59% maintained their weight loss, and 6% lost additional weight. Baseline characteristics that increased the risk of regain included more recent weight loss (fewer than 2 years versus more than 2 years), larger weight losses (>30% of maximum weight versus <30%), and higher levels of depression, disinhibition, and binge eating at entry into the registry. These findings are of interest, particularly the duration effect. It appears that the first few years after weight loss are the most vulnerable period for weight regain. Maintaining ones weight loss for 2–5 years decreased the risk of subsequent regain by 50%. Thus, individuals who succeed in maintaining their weight loss for

more than 2 years have a markedly improved chance of continuing to maintain it long-term.

Regainers were also characterized by several key behavior changes that occurred over the year of follow-up and distinguished them from maintainers. Gainers increased their fat intake, whereas maintainers kept theirs consistent. Both groups reported decreases in physical activity, but the regainers had greater decreases: expending approximately 800 fewer kcal/week compared with 400 kcal/week in the maintainers. Gainers also reported decreases in their level of dietary restraint and increases in disinhibition (i.e. loss of control while eating). These findings confirm the importance of the behavior changes described in earlier sections of this chapter for the long-term maintenance of weight loss.

## SUMMARY

It is important that a consensus be reached on a definition for successful weight loss maintenance. Our recommendation is that an intentional weight loss of greater than or equal to 10% of initial body weight that is maintained at least 1 year be considered success. According to this definition, approximately 20% or more of individuals who attempt weight loss would be “successful.” Although the NWCR does not provide information about how many people achieve long-term weight loss success, it does provide information about strategies used to achieve and maintain a weight loss. With regard to weight loss, the most obvious conclusion from the NWCR is that weight loss should include both changing diet and increasing physical activity. We do not, however, see any particular type of diet modification to achieve the weight loss that is common to these successful weight loss maintainers.

We believe that strategies for weight loss maintenance may be the key to long-term weight management success. We find three behaviors in a vast majority of NWCR subjects. First, these subjects engage in high levels of physical activity. The amount of physical activity that facilitates successful weight loss maintenance may be closer to 1 h/day rather than the 30 min three times per week suggested in recommendations to the general public. Consequently, we may need to increase our physical activity goals in obesity treatment programs. Second, these subjects report eating a diet low in fat and high in carbohydrate. We believe this is important information given the oscillating nature of popular diet books regarding optimum macronutrient composition for weight loss. Third, these subjects report regular self-monitoring of weight. Maintaining a substantial weight loss may be a long-term challenge, and it may be important to have access to information about success. This may be particularly important in terms of initiating early strategies to stop weight regain. Currently, the data seem to suggest that differences in behavior are stronger predictors of weight regain than the differences in physiology or metabolism. Further research with frequent assessments of behavior and metabolic parameters may be helpful in determining which set of factors is most strongly related to long-term maintenance of weight loss.

Part of the reasons for developing the NWCR was to counter the belief that “no one succeeds long-term at weight loss.” We believe the subjects in the NWCR show that you can achieve and maintain substantial amounts of weight loss. Furthermore, we have found that these subjects live “normal” lives after weight loss and consistently report that life is better after weight loss. Our subjects tell us that their success requires substantial effort but that it is worth it. Finally, our data suggest that over time, it does get easier to maintain weight loss. It may be a lifelong struggle, but once you have maintained a weight loss for 2–5 years, the chances of longer-term success greatly increase.

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# Weight Loss Methods

Body Mass Index (BMI) is a way to define overweight and obesity. The index is a mathematical formula in which a person's body weight in kilograms is divided by the square of his or her height in meters [ $\text{kg}/\text{m}^2$ ]. The BMI is more highly correlated with body fat than any other mathematical ratio of height and weight; however, athletes and individuals with high percentage of muscle in their bodies may have a BMI in the overweight range because of the heavier weight of muscle tissue (fat floats and muscle sinks in water).



BMI	Defined as:
18-25	Normal weight
25-29.9	Overweight
>30	Obese

Overweight is defined as increased weight in relation to height. Obesity is defined as an excessively high amount of body fat or adipose tissue in relation to lean body mass.



## Waist Circumference:

The distribution of body fat is important from a chronic disease perspective. Those who have more body fat inside the abdomen have an increased risk for elevated triglycerides, high blood pressure and glucose intolerance. There is less risk for chronic diseases with fat accumulating in the lower body. Waist circumference correlates with chronic disease risk. Men with a waist larger than 40 inches (102 cm) or women with a waist larger than 35 inches (88cm) have increased intra-abdominal fat with a greater risk of chronic disease.

When someone is a few pounds overweight and is motivated to lose weight, there are safe and effective methods to lose a few pounds and to maintain a weight loss. Exercise is a safe way to reduce excess body fat.

## 1. Dieting with the Exchange Diet

The American Diabetes Association breaks food down into six categories called exchanges:

- Starch/bread
- Meat
- Vegetables
- Fruit
- Milk
- Fat



### How to use the exchange plan:

The number of exchanges per day is determined by the number of calories needed each day. It is different for each person and depends on height, weight and the amount of energy expended. The most accurate way to determine the number of exchanges you need is with the help of a registered dietitian, health professional or a trained fitness professional. For more information about the exchange diet, contact:  
<http://www.diabetes.org/home.jsp>

This Exchange diet is used to treat diabetes and other chronic diseases. The exchange system also works well for use in weight management. It is a balanced system, with foods from each group, and can be followed indefinitely. The diet is an easy way to monitor intake of carbohydrates, fat and protein, as well as portion sizes.

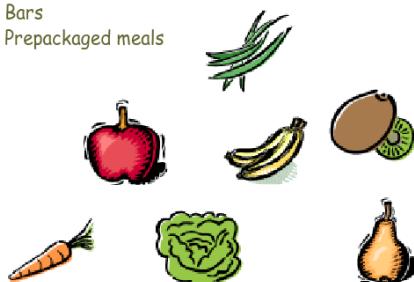


### Dieting using calorie control portions

**Meal Replacement Plan.** Using a product with a fixed number of calories in each portion to replace a meal is the rationale behind this plan, whether the product is a liquid formula or a packaged item. This takes the guesswork out of meal planning, and the person can be assured of not consuming too many calories. By controlling portion sizes, fat and carbohydrate intake, a person can control calories.

The replacement items are balanced and contain a mix of protein, carbohydrates and fat, as well as other nutrients. Four different types of meal replacements are available:

- Powder mixes
- Shakes
- Bars
- Prepackaged meals



The usual plan is to use a meal replacement for one or two meals a day while having sensible meals that combine lean meat, starch, vegetables and fruit for the other meals during the day. An intake of **five** fruits and vegetables is recommended. A meal replacement program is more effective for losing weight than a conventionally structured weight loss diet. Meal replacements offer a convenient and nutritionally beneficial weight loss alternative to conventionally structured weight loss diets.



## 2. Exercise

Maintaining, gaining and losing weight are tied to [energy balance](#). Positive energy balance leads to weight gain, negative energy balance leads to weight loss and maintaining weight means an energy balance has been reached. Physical activity and caloric intake balance each other. Exercise is excellent in helping to maintain a zero energy balance. Exercise can build lean body mass, which burns more calories than fat. Walking, running and doing physical activity can burn two to three times more calories than a similar amount of time sitting. Weight loss is easier to achieve by dieting, and exercise adds little to the weight loss of diet alone.



The strength of exercise is in maintaining a weight loss attained through diet. There is an improvement in overall physical fitness with an exercise program that may reduce blood pressure and improve insulin sensitivity. An exercise program with 150 to 200 minutes of moderate physical activity each week combined with a diet for weight loss can result in the maintenance of reduced body fat, particularly intra-abdominal fat.

## 3. Behavior Change

Eating right and losing weight can be difficult. To lose weight and keep it off, changes in lifestyle and daily habits are necessary. Long-term lifestyle changes require more than simply watching what one eats and how much one exercises. It requires changing one's [approach](#) (thinking, feelings and actions) to eating and physical activity. Behavior change is one of the most widely used strategies for helping people to lose weight and maintain a healthy lifestyle. Studies have demonstrated several tools that are effective in helping people make this change toward a healthy way of living. These behavior change tools focus on maladaptive eating and exercise patterns that can lead to weight gain, and these tools are designed to reduce the cues in our environment that predispose us to weight gain. These tools help to increase awareness of eating and activity patterns, to normalize eating patterns, to reduce exposure to cues for unhealthy eating or activity patterns, and to alter responses to difficult situations.

Some common behavior change tools include:

- (1) Making lifestyle changes a priority
- (2) Establishing a plan for success
- (3) Setting goals for eating and exercise
- (4) Keeping a record of eating and physical activity every day
- (5) Avoiding a [food chain reaction](#)  
(learning the social and environmental cues around you that encourage unhealthy eating or sedentary behavior and avoiding/distracting yourself from these triggers)
- (6) Rewarding yourself with nonfood "prizes" for each met goal.





#### 4. Medication and Surgical Treatment

Medication is indicated when BMI is higher than  $30 \text{ kg/m}^2$  or when it is higher than  $27 \text{ kg/m}^2$  and cardiovascular risk factors are present and safer methods have proven unsuccessful. The use of medication is always combined with a diet and lifestyle instruction under continued medical supervision. The medication and dosage are tailored individually to the patient. A person can expect a 7 percent to 10 percent weight loss with the use of medication.

#### Medication

##### Phentermine

Phentermine first received approval from the Food and Drug Administration (FDA) in 1959 as an appetite suppressant for the short-term treatment of obesity. Phentermine affects certain neurotransmitters in the brain that decrease appetite, causing the person to eat less. When phentermine was approved, obesity was thought to be caused by bad eating habits. Psychologists tell us that habits can be learned or retrained over a few (up to 12) weeks. Thus, phentermine was tested over this period. We now understand obesity to be a chronic medical problem in which weight is maintained at a higher than healthy level, much as blood pressure control is dysregulated in a person with high blood pressure. Phentermine can be just as effective for weight loss when used every other month. In this way, phentermine can still be used successfully to control weight chronically while conforming to the instructions in the package insert.



##### Sibutramine

Sibutramine induces weight loss primarily through its effect on food intake, but it also increases metabolic rate to a lesser degree. Sibutramine enhances satiety. Studies indicate that maximum weight loss is achieved by six months. Most individuals lose from 5 percent to 10 percent of their body weight. Weight regain occurs after sibutramine is discontinued. Normally when individuals lose weight, their metabolic rate goes down and energy expenditure decreases. Sibutramine helps to prevent this decline. Sibutramine use may increase heart rate and blood pressure. Regular blood pressure checkups are encouraged. Sibutramine is not recommended for someone with uncontrolled hypertension or tachycardia.

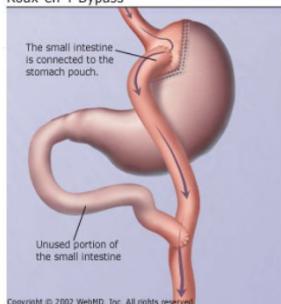


### Orlistat

Orlistat prevents the absorption of dietary fat. It inactivates an enzyme that is involved with fat digestion called lipase, and, in this way, about 30 percent less fat is absorbed. The unabsorbed dietary fat is then eliminated in the stool. This may change bowel habits, resulting in oily stools, fatty stools, increased frequency of bowel movements and an inability to control bowel movements. Orlistat intake, together with a 30 percent fat diet, can result in modest weight loss of about 6 to 7 pounds a year while minimizing the gastrointestinal side effects. Because less fat is absorbed, this also improves blood lipids. A decrease in blood cholesterol levels and blood pressure can be anticipated.



### Roux-en-Y Bypass



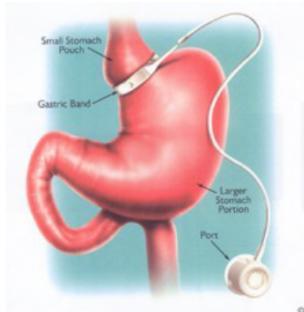
### Malabsorptive

### Surgery



### Malabsorptive:

**Gastric bypass:** This operation creates a very small stomach pouch from which the rest of the stomach is separated. The small intestine is attached to the newly created small stomach, thereby bypassing the rest of the stomach and the first part of the small intestine and a portion of the second. After surgery, there is delayed absorption of food. The operation restricts food intake and reduces the feeling of hunger by activation hormones in the lower small intestine. The result is an early sense of fullness followed by a sense of satisfaction. The portion size is reduced to a small 2- to 6-ounce serving. Patients continue to enjoy eating all types of food in smaller portions after surgery.



### Restrictive

### Restrictive:

A restrictive silicone band is placed around the upper part of the stomach, creating a smaller gastric pouch, limiting the amount of food that the stomach will hold at any time. The inflatable ring controls the flow of food from this smaller pouch to the rest of the digestive tract. A small amount of food creates a sense of fullness, and because of slow emptying, the feeling of fullness lasts for several hours.



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10/09

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# *eat more, lose weight*

There is no magic way to lose weight. Put simply, we lose weight when we eat and drink fewer calories than our bodies use up. If only it were that simple! Modern life has become less and less active for many of us, so we burn off fewer calories than we once would have. Convenient, tasty and high calorie foods are also readily available - wherever we turn! It's no wonder we can easily end up consuming more calories than our bodies need.

We know that 'sticking' to a plan is key for successful weight loss. The trick is to find a method that works for you. One challenge many of us struggle with is thinking we have to cut down on the amount of food we eat. This can leave us feeling hungry or deprived, so not surprisingly, we give up.

In this leaflet we look at ways you can eat more, satisfy your appetite and still lose weight. Yes, this could really work for you!

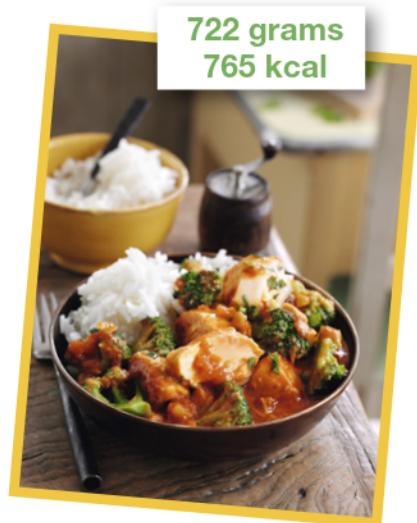


# Understanding 'energy density'

Energy density is the amount of energy (or calories, kcal) per gram of food. Lower energy density foods provide less energy per gram which means you can eat larger portions for fewer calories. The greater amount or volume of food will help you feel full and satisfy your appetite as you lose weight. You can cut the energy density of your diet by reducing fat and increasing high fibre and water-rich foods, such as vegetables or pulses, in your favourite meals. This is because fat has a high calorie content per gram (9 kcal/g), whereas fibre is relatively low in energy. Water in foods can add volume to the meal, helping you to feel fuller, without adding to the calories. Many energy dense foods are also high in sugars, so you can also cut energy density by limiting the added sugars in your diet.

Understanding 'energy density' can help you lose weight without feeling hungry or deprived of food and help you maintain your weight loss in the long term.

## Eat satisfying portions, feel full and still lose weight!



# What foods are good choices on a low energy dense diet?

## Foods with high water content

Lower energy density foods include foods that are naturally high in water, such as fresh fruit and vegetables, foods like pasta, rice and pulses that absorb water during cooking and dishes with added water such as soups and stews.

## Foods containing fibre

Dietary fibre cannot be fully digested and so it provides fewer calories per gram (only 2 kcal per gram) compared to carbohydrate, protein and fat. Choosing fibre-rich foods can help us feel fuller too. These are also great to include in your diet because eating plenty of fibre is associated with a lower risk of heart disease, stroke, type 2 diabetes and bowel cancer.

## Foods that are lower in fat

Reducing the amount of fat you add to dishes when cooking can also lower their energy density. Generally, if you lower the fat content of a recipe you can get a bigger portion for the same number of calories.

## High-protein foods

High protein foods (such as lean meat, poultry, fish, eggs, pulses) may help decrease hunger and keep us fuller. For sustainability and health, it's recommended not to eat too much red and processed meat.

# Which foods are lower in energy density?

It is important to eat well and have a varied diet. Healthy, balanced diets contain a number of lower energy density foods.

Here are some examples; choose these more often to help you feel full and satisfied.

## Fruits and vegetables (with no added fat or sugar)

e.g. apples, raspberries, oranges, broccoli, carrots, cucumber, tomatoes. These are high in water and provide fibre. Fruit and vegetables are also a good source of vitamins and minerals.



## Pulses (beans, peas and lentils)

e.g. red kidney beans, chickpeas, lentils, butter beans, baked beans. These are high in protein, low in fat and provide fibre. Pulses are also a good source of vitamins and minerals.



## Low-fat and fat-free dairy products

e.g. semi-skimmed milk, 1% fat milk or skimmed milk, low-fat or fat-free lower sugar or plain yogurt, cottage cheese, reduced fat soft cheese. These are a source of protein and choosing lower fat dairy products will help reduce your total fat intake. These foods also provide vitamins and minerals, including calcium. Swapping to lower fat dairy products instead of full fat dairy products can help lower your saturated fat intake.



## Potatoes and cereal-based foods that absorb water during cooking

e.g. pasta, rice, potatoes, noodles. These foods provide energy but also have a high water content. Choose wholegrain versions of pasta and rice and potatoes with skins for extra fibre.

## Vegetable-based dishes

e.g. non creamy vegetable-based soups, vegetable-based stews/casseroles and sauces, such as tomato-based pasta sauces.

These dishes have a high water content and are high in fibre. Try to stick to lower salt options if buying soups and sauces, and choose those without cream.

## Lean meat, poultry, fish, shellfish and eggs

e.g. lean or extra lean beef, pork (fat trimmed), chicken (skin removed), turkey breast mince, white fish (baked, grilled or steamed), prawns, mussels, eggs (poached or boiled). These foods are high in protein and provide other useful minerals and vitamins.

**A note on oily fish** like salmon, sardines, mackerel. These contain healthy omega-3 fats that may be beneficial to heart health and are the richest food source of vitamin D. Aim to include a can or fillet of oily fish per week.

# Which foods have a higher energy density?

Higher energy density foods are usually high in fat and/or sugar and contain relatively little water and fibre so they provide more calories per bite. Here are some examples of higher energy density foods. If you include these foods, aim to consume them less often and in small amounts.

## Fried foods

e.g. fried chips, fried chicken, fish in batter, pakoras, bhajis, spring rolls, sesame prawn toast, doughnuts.

## Snacks

e.g. biscuits, chocolate, potato crisps, bombay mix, cheese straws.

## Fatty meats

e.g. beef burger (fried), chorizo, streaky bacon (fried), sausages (fried), standard lamb mince.

## Pastries, pies, cakes and desserts

e.g. sweet and savoury pies made with pastry (such as pork pie and apple pie), cakes, cream- and chocolate-based desserts.

## Higher fat dairy products and butter

e.g. cream, ice cream, butter, full-fat cheese.

### A note on cheese

Full-fat cheese, such as cheddar can be a good source of calcium in the diet. If you enjoy cheese, choose stronger varieties and have small portions, or swap to a reduced fat version!

## Healthy foods with a higher energy density

Whilst it's beneficial for weight control to see where you can make lower energy food choices, there are some higher energy foods that are a useful part of a balanced diet. It's good to include some of these. These foods are rich in healthy fats:

- Nuts, nut butters and seeds – unsalted, unsweetened nuts, seeds and nut butters can be a healthy snack or addition to curries and stir fries. As well as unsaturated (healthy) fats they contain fibre, protein, vitamins and minerals.
- Oils for cooking and salads and spreads for bread – some unsaturated oils (like olive and rapeseed) should be included in a healthy, balanced diet but do measure out the amount you need carefully or use spray oils. You can also opt for reduced fat, unsaturated spreads rather than full-fat spreads.
- Avocados – these have a high unsaturated (healthy) fat content compared to other fruit and vegetables. You can include avocados as part of a healthy, balanced diet.

Aim for overall variety in your diet and include choices like nuts, seeds, avocado and oils like olive and rapeseed oil as they provide important nutrients. As these foods are more energy dense, being mindful of portion sizes and frequency when choosing these foods means you can enjoy them while managing your weight.

# How does energy density work in practice?

These two sample menus show how the meals we eat can be of different energy densities.

Menu 1 has less food but is higher in calories and has a higher energy density.

Menu 2 provides a greater amount of food (and more variety!) but fewer calories and has a lower energy density.

## Menu 1\* High energy density menu

	Average weight	Kcal
<b>Breakfast</b>		
Regular latte (coffee shop, semi-skimmed milk)	364ml	151
Almond croissant (coffee shop)	83g	374
<b>Lunch</b>		
Chicken triple sandwich (from supermarket)	261g	529
Bag of crisps	25g	130
Can of sugars-sweetened cola	330ml	139
<b>Dinner</b>		
Half a deep pan pepperoni pizza (shop bought)	191g	502
Slice of apple pie and custard (ready to eat)	230g	392
<b>Late evening</b>		
Hot chocolate made with whole milk and topped with full fat cream, grated chocolate and marshmallows	266g	367



Total 1750g 2584kcal

\* Based on average values.

## Menu 2\* Low energy density menu

	Average weight	Kcal	
<b>Breakfast</b>			
Scrambled eggs and grilled mushrooms on wholemeal toast	395g	412	
Tea (or instant coffee) and semi-skimmed milk	260ml	17	
<b>Lunch</b>			
Salmon pasta with asparagus	360g	460	
Apple	174g	89	
Can of diet cola	330ml	1	
<b>Dinner</b>			
Cheese and tomato topped chicken with homemade sweet potato wedges and a side salad	588g	494	
Low-fat yogurt and mixed berries	190g	120	
<b>Late evening</b>			
Instant low calorie hot chocolate topped with a squirt of reduced fat whipped cream and grated dark chocolate	229g	93	
<b>Total 2526g 1686kcal</b>			

To calculate grams (g) for liquids in millilitres (mls), appropriate specific gravities were applied.

\* Based on average values.

# Using a lower energy density diet to help manage your weight

A healthy, balanced lower energy density diet may help you enjoy satisfying portions and not only lose weight but also to maintain your weight loss.

## To try this approach:

Make foods with a lower energy density the major part of what you eat. Examples include:

- fruit and vegetables
- pulses
- lower fat dairy
- fibre-rich foods like wholegrains and
- good sources of lean protein

Aim to limit portion sizes of foods with a higher energy density, particularly foods like pies, pastries, cakes, biscuits and deep fried foods. These are not as effective at filling you up for the amount of calories they provide. Having plenty of foods with a lower energy density alongside smaller portions of foods with a higher energy density in a meal can reduce the overall energy density. So, choose plenty of salad and vegetables as part of your meals.

**Following this kind of eating pattern can help reduce your risk of chronic disease as well!**



## Here are some tips to lower the energy density of your diet:

- ✓ Choose tomato-based sauces and soups instead of creamy or cheese-based ones.
- ✓ Opt for low-fat or fat-free dairy products.
- ✓ Use lower fat mince and lean cuts of meat, removing any excess fat and take the skin off poultry.
- ✓ Avoid using too much fat when cooking – grill, steam or bake instead of frying.
- ✓ Swap mayonnaise for low-fat plain yogurt or reduced-fat mayonnaise in dips and for salad dressings.
- ✓ Add extra vegetables or beans, peas or lentils to dishes. You could use these to replace some of the meat in recipes.
- ✓ For nibbles, enjoy vegetable sticks with reduced fat humous instead of crisps with full-fat dips.
- ✓ When eating out or getting a takeaway, go for boiled rice, noodles and potatoes instead of fried, swap deep fried foods for grilled and order extra vegetables.
- ✓ For dessert, mix fruit salad or berries with low-fat yogurt instead of cream.

*For further information on energy density and foods that can help you feel fuller, please refer to our website:*

**[www.nutrition.org.uk](http://www.nutrition.org.uk)**

## Preparing lower energy density meals

There are some simple steps you can take to lower the energy density of your favourite recipes. For example, you can make a lower energy density spaghetti bolognese, which has fewer calories and still tastes delicious.

### Spaghetti bolognese

A standard recipe uses spaghetti, minced beef, bacon, onions, garlic, canned tomatoes and oil. A lower energy density spaghetti bolognese has around half the calories of a standard bolognese for the same sized portion!

### Lower the energy density by:

- Choosing extra lean minced beef instead of regular minced beef to lower the fat.
- Omit the bacon and add more veg like carrots, celery, peppers and mushrooms to increase the volume and lower the fat.
- Use spray oil instead of pouring oil.
- If you want to sprinkle cheese on top use a reduced fat variety.
- Use wholewheat spaghetti to get a bigger fibre boost.



# What other things can have an effect?

There are a number of other factors that can influence how many calories we consume.

## Drinks

Drinks are important to help keep our bodies hydrated, but some, like sugary drinks (e.g. sugars-sweetened fizzy drinks, energy drinks, milkshakes) can be surprisingly high in calories and do not fill us up. It's easy to drink a sugary drink very quickly and take in a lot of calories without it making you feel as full as you would when eating food with the same energy content. If you like soft drinks, diet or no added sugar versions are a good alternative or add a splash of unsweetened fruit juice to sparkling water.

You can reduce the energy density of your cappuccinos and lattes by asking to have them made with skimmed milk and not adding whipped cream, sugar or sugary syrups. Fruit juices and smoothies provides vitamins but also contain free sugars so aim to have no more than one glass (150ml) per day.

Water is calorie free so is a great choice!

## Alcohol

You might be surprised how high in calories alcoholic drinks can be. It's been estimated that the average wine drinker in England takes in around 2000 kcal from alcohol every month.

As well as the calories in alcohol itself, alcohol may encourage us to increase our energy intake as it can stimulate appetite. It can also go hand in hand with high energy density snacks like crisps and roasted/salted nuts, and depending on how much you have, it can reduce your chances of doing exercise the following day! Choosing alcoholic drinks with fewer calories, such as wine spritzer with soda water, using low calorie mixers with spirits or alternating alcoholic drinks with a glass of water can help to cut down on alcohol and calorie intake.

## Distractions

Distractions, such as watching TV or using computers, tablets and phones while eating, make us less likely to notice the feeling of fullness. Avoiding distractions while eating and concentrating on the food itself can make us less likely to overeat.



## **Eat mindfully**

Try eating more slowly and enjoying your food; eating more slowly can give you time to realise you're full. Pause between mouthfuls to chew and be aware of the taste of the food. It takes about 20 minutes after eating a meal for your brain to register you're full.

## **Sleep**

A healthy lifestyle includes getting enough good quality sleep. Not getting enough sleep has been linked to being overweight and having a poor diet, including a higher intake of calories, eating more snacks and snacking on less healthy foods. Being sleep deprived can change levels of hormones which influence appetite, making us feel hungrier. Feeling more tired can also mean we're less likely to be physically active. These factors all increase the chance of weight gain.

For better quality sleep, aim to establish a regular routine for going to bed, avoiding heavy meals, caffeine, nicotine and alcohol late at night and keep screens like TVs and phones out of the bedroom. A dark, quiet and cool environment will make it easier to sleep.

## **Being active**

Incorporating physical activity into our lifestyle can help support weight loss when used alongside changes in our diet, and has been shown to be extremely beneficial in helping to keep the weight off long term. It also provides lots of other health benefits too including being beneficial to our overall mental health and wellbeing. Some evidence even suggests that regular physical activity may help regulate our appetite!

For more information please visit  
**[www.nutrition.org.uk](http://www.nutrition.org.uk)**



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# Weight Management



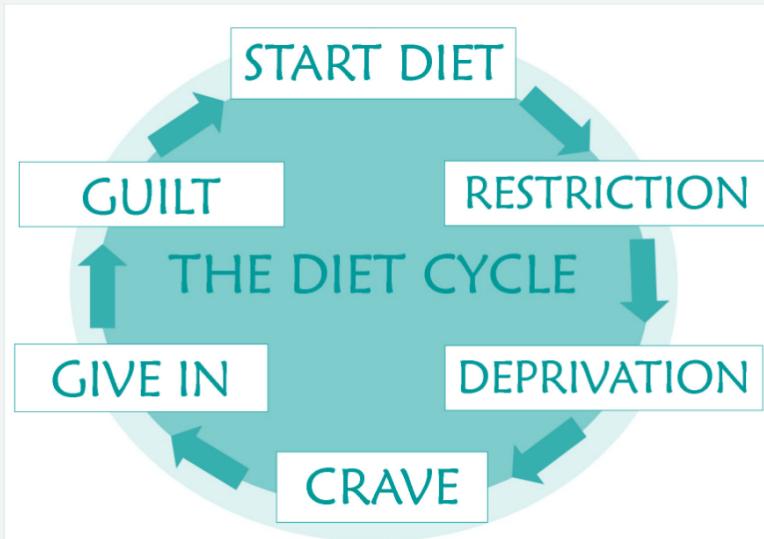
**Healthy Eating Tip of the Month  
January 2015**

# Ways to Avoid Diet Failures

Diets can be confusing!  
What foods are allowed?  
You might feel deprived!  
You may give in to cravings!  
But it doesn't have to be this way!

Remember that weight loss requires a change in your life-style, not just your diet. Focusing on following a strict diet may lead to feelings of guilt rather than satisfaction!

## The Diet Cycle



The diet cycle explains why so many diets are unsuccessful!

Any diet that requires severe restrictions of your food intake will leave you feeling deprived, and eventually you will give in!

After you give in, you will feel guilty and start your diet again. Then the cycle repeats!

Sound familiar?

**The diet fails you — you do not fail the diet!**

## How to Break the Cycle

### 1. Change your mindset!

Try to think about living an overall healthy lifestyle, rather than being on a diet.

Think about all the good foods you can eat, and how they are improving your health!

### 2. Set realistic goals

Setting a goal can give you motivation to keep going. Once you reach your goal you will feel successful!

Share your goal with others to keep yourself accountable!

### 3. Don't be so hard on yourself!

Remember that nobody is perfect!

If you have a slip up, acknowledge it, determine how to avoid the situation in the future, and then get right back on track.

Allow yourself to enjoy life. Everything in moderation!

Achieving a healthy weight is a journey.

*Don't give up!*

## Ways to Stay on Track

### Keep a food journal

- Record what you ate, how much, when, and why you ate it.
- You can use this as a tool to hold yourself accountable—it will give you a visual of how much and what types of foods you are eating throughout the day.
- Patterns relating food choices to your emotions may become apparent.

### Reduce temptations

- Do not keep unhealthy foods in your house if you know they tempt you. If it is not there, you will be less likely to eat it!
- Plan a menu for the week and grocery shop accordingly. If you have your meals planned, you will be less likely to make poor last minute decisions!
- Keep a healthy snack in your car, desk, or purse. You can reach for this when you are hungry instead of getting fast food or vending machine items!

### Find what works for you

- Everyone is different and there is more than one way to be successful!
- You will have greater success when achieving a healthy weight if you find strategies that work for your lifestyle!

# Reasons to Keep Going!

Decrease your risk of chronic diseases!

- Research has shown that as little as 5-10% weight loss can significantly decrease the risk of cardiovascular disease (CVD).  
*Diabetes Care. 2011;34(7):1481-1486. doi:10.2337/dc10-2415.*
- A 10-20 pound weight loss can improve your blood pressure, cholesterol, and triglyceride levels.
- Weight loss also allows people with diabetes to have better control of their blood glucose.  
*National Center for Chronic Disease Prevention and Health Promotion*

More Energy

- Eating a balanced diet can help you feel more energized throughout your day!

Better Sleep

- People who eat healthy and exercise also get more quality sleep.

## Are You Drinking Liquid Candy?

The amount of calories in a person's diet that come from sugar sweetened beverages has almost doubled in recent years, reaching 20.1% in 2002!

*American Journal of Clinical Nutrition, 555-563. doi:10.3945/ajcn.111.026278*

It has been proven that sugar sweetened beverages contribute to weight gain, diabetes, dental caries, and heart problems.

By removing sugar sweetened beverages from your diet, you could have a 2–2.5% weight loss in 6 months!

*American Journal of Clinical Nutrition, 555-563. doi:10.3945/ajcn.111.026278*

## What can you do?

Replace soda with water

Try calorie free–flavored waters

Add fruit to water!

Have sparkling water instead



## Check the Label

- One container may have more than one serving!
- A typical 20 oz. soda can contain 240 calories, and 15-18 teaspoons of sugar!

## Exercise for Weight Maintenance

Exercise combined with a balanced diet can help you maintain a healthy weight and reduce your risk of chronic diseases!

It is recommended to have at least 150-300 minutes of moderate intensity exercise per week.

Examples: brisk walking, yoga, swimming, bicycling, tennis, yard work, & snow shoveling.

Breaking exercise up into 10-15 minute periods may be helpful to get the recommended amount of exercise per week.

**Involve your kids to help the whole family get active!**



Get a workout partner to have moral support and accountability!

Quick tips:

- ◆ Use the stairs!
- ◆ Park further away and walk!

Choose an activity that you enjoy doing; it will make exercise seem less daunting!

## Weight Loss & Technology

Studies have shown that using an app, website or other technology as a weight loss strategy can improve success.

Researchers have also found that applications help to increase awareness of food intake and exercise amounts.



## MyFitnessPal



## MyPlate

[choosemyplate.gov](http://choosemyplate.gov)



### Pros

- \* MyFitnessPal is approved by registered dietitians.
- \* Price is free, and it is available for iPhones and Androids.
- \* The app has a high rating of 4.5/5 stars.
- \* Large data base—over 5,000,000 food choices.
- \* Tracks diet and exercise.
- \* Connects to other apps, such as Fitbit.
- \* User is able to input own recipes and food items if they are not on the database.
- \* Barcode scanner can easily input nutrition facts from the package into the app.

### Cons

- \* Estimated calorie and macronutrient needs may be inaccurate.
- \* There are several selections for one food item, so it can be hard to choose which one is correct.
- \* User may be too focused on calories, rather than the overall quality of their diet.

### Pros

- \* MyPlate is approved by registered dietitians.
- \* The website has several resources on:
  - Portions
  - Eating on a budget
  - Recipes
  - Food safety
- \* Website provides nutrient and health benefit information on each food group.
- \* The website provides tips for different populations (children, students, adults, professionals, multiple languages).
- \* Supertracker is a database to track your food intake, exercise, and goals, which are compared to the daily recommended amounts.
- \* Supertracker allows you to create groups to track with for support.
- \* MyPlate has mobile applications to use when a computer is not available.

### Cons

- \* Mobile applications have poor ratings.
- \* Website may be hard to use to find information.
- \* Supertracker food database is smaller than MyFitnessPal.

## Fitbit



## Pedometers

### Pros

- \* Tracks activity/steps along with heart rate, calories burned, and distance depending on the device.
- \* User can “challenge” friends that also have Fitbits for friendly competition. The challenges help to increase motivation and have accountability.
- \* The app keeps track of your progress, so you can look back to check your activity levels.
- \* Fitbit information will sync to other apps.
- \* Alerts user when they have reached their step goal (typically the recommended 10,000 steps)

### Cons

- \* Fitbit’s may be more expensive than pedometers or other devices.
- \* The Fitbit options that have more capabilities, such as being able to track different activities or sleep patterns are expensive.
- \* The Fitbit must be worn in order to track activity.

### Pros

- \* Less expensive than a Fitbit or other activity tracking device.
- \* Does not require technology to sync to.
- \* May be easier to work than a technological device.
- \* Is possibly a better option for populations that do not use/understand technology.
- \* Allows user to track their daily steps and compare it to the recommended 10,000 per day.

### Cons

- \* Must be worn to track activity.
- \* Does not provide as much information as other options.
- \* Only counts steps, so it may not be accurate for all forms of exercise.



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