



# NUTRITION

## BASIC NUTRITION GUIDE



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# CONTENTS

Topic	Page
Introduction	4
Why do we need food	5
Calories in -v- Calories out	8
BMR and Energy	10
NHS Eatwell Guide	11
Food Label Traffic Lights	13
Conclusion	15

## Introduction

The aim of this guide is to offer a very brief outline as to why nutrition is important when it comes to improving your overall health and fitness. You will have no doubt heard the expression “You can’t out-train a bad diet” and that as true today as it ever has been.

Someone with a inherently bad diet and is overweight may start some form of fitness and in doing so is likely to see some results, but they will be difficult to obtain and tough to maintain. The same goes for someone who improves their nutritional habits but doesn’t include any form of fitness activity – the results will be there but difficult to achieve.

However, if you can introduce some form of fitness into your daily life that you enjoy and stick to, and at the same time look at your eating habits and make some small healthy changes, you will be on to a winner! The results will come quicker and be more effective.

This guide will touch on the important aspects of nutrition, but only in brief detail, so please don’t worry – you won’t have to take notes and study! The idea is to give you some useful information which you can refer to in the future and help you to make healthy choices.

We hope you find it useful and we would welcome any feedback or questions you may have around anything included within.

Enjoy 😊



## WHY DO WE NEED FOOD?

Imagine your body is a car (*bear with me on this 😊*). You know that if you want to drive to the local shops a few miles away, you're going to need to put some fuel in it to get you there. You also know that if you have a petrol car, you're not (hopefully) going to put diesel in it. If you're planning a journey to see some friends in Edinburgh, you know that you're likely to need to stop on the way and put some more fuel in too.

Your body works in a similar way, in order to do anything, it needs fuel the same way your car does (*just don't use petrol!*). If you put the right amount of the right fuel in, it will get you where you want to go. However, put the wrong fuel in or don't put enough and you're in trouble.

Anyway, enough of the car analogies. The point is that your body needs fuel or energy to survive which comes in the form of food. Energy is measured in calories (*or kilo calories if you want to be exact but calories is easier to work with so we will stick to that*). A calorie is a measurement of the amount of heat given off when your body consumes and metabolises food. Without enough food, your body won't have enough energy.

*For example, did you know that an adult weighing 10 Stone burns around 450 calories overnight whilst sleep! Sound good? Maybe we should all sleep more!*

Food is made up of several things including carbohydrates, protein & fats (*these are referred to as "Macro's"*) and also vitamins and minerals. Don't worry, we're not going to go into too much detail around this, it's just to put it into context.

- **Carbohydrates** (or carbs) are your body's main source of energy and for every gram of carbs you eat, there are 4 calories. The best source of carbs are unprocessed whole grains such as brown rice, wholewheat bread and also fruit and vegetables. Carbs should make up around 60% of your daily food intake.

- **Protein** contain 4 calories for every gram and are found in foods such as lean meat, fish, cheese, milk and eggs and should make up around 10-15% of your diet.
- **Fats** however contain 9 calories per gram so more than double that of carbs and protein. It's important therefore to watch your fat intake, but equally important to know that a healthy body needs healthy fats! Healthy fats are found in things like olives, hazelnuts, pistachios, olive oil, almonds, cashews, avocados and oily fish. Try to avoid saturated fat such as and sausages, ham, burgers, whole milk, butter and lard and also do your best to limit the amount of trans-fats that you eat to. These are found in all the tasty, enjoyable food such as fried food, take-aways, biscuits, cakes and pastries 😞.

## HOW EATING AFFECTS EXERCISE

When it comes to exercising and eating, there are two simple rules – Carbs before and protein after.

**Carbohydrates** are fuel for your 'engine'. The harder your engine is working, the more carbs you need to keep going. As a general rule of thumb, it's best not to eat immediately before a workout because while your muscles are trying to do their "thing," your stomach is trying to simultaneously digest the food in your stomach. These competing demands are a challenge for optimal performance. And, even more of a factor, eating too close to a workout may cause you to experience some GI discomfort while you train or play.

Ideally, you should fuel your body about 1 to 4 hours pre-workout, depending on how your body tolerates food. Experiment and see what time frame works best for your body. Here are some suggestions for pre-workout fuel:

- *A peanut butter and banana or PBJ sandwich*
- *Greek yogurt with berries*
- *Oatmeal with low-fat milk and fruit*
- *Apple and peanut or almond butter*
- *Handful of nuts and raisins (two parts raisins: one part nuts)*

Your body uses stored energy (glycogen) in your muscles to power through your workout, but after that workout finishes, you need to replace the lost nutrients.

After a workout, focus on getting carbs and protein into your body. This gives your muscles the ability to replenish the glycogen they just lost through training and helps your tired muscles rebuild and repair. Try to eat within an hour of completing an intense workout. Post-workout meals include:

- *Post-workout recovery smoothie (or post-workout smoothie made with low-fat milk and fruit)*
- *Low-fat chocolate milk*
- *Turkey on a whole-grain wrap with veggies*
- *Low-fat yogurt with berries*

The above offer mainly carbs plus some protein and are convenient — with the first two liquid options also helping to rehydrate the body, which brings us to the next important point – Water!

## **WATER**

The human body consists of around 50-70% water, depending on your age and how much muscle mass and fat you have. It's possible (although not comfortable) to survive for a few weeks without food, but without water, your body will start to shut down in just a few days.

Water is vital to everything your body does. It carries nutrients around in the blood stream, assists with digestion, regulates body temperature, lubricates joints and also helps to send messages between the brain and your muscles so you can move. The best source of water is tap water, closely followed by milk (but be careful about the hidden fat in full-fat milk).



## CALORIES IN -v- CALORIES OUT

Calories can be either really complicated or fairly easy to understand, depending on how much you want to know. The basic rule of weight loss is that you need to burn off more calories than you consume – simple eh? 😊

You need to burn 3,500 calories to lose 1lb of fat. That may sound like a lot, but if you think of it over a long period of time it's not really. The NHS suggest that healthy weight loss is around 1-2lbs a week **maximum**, so in order to lose 1lb of fat in a week, you would need to burn 500 calories a day more than you eat and to lose 2lbs in a week, you would need to burn 1000 calories a day more than you eat. Make sense?

Let's consider some popular food and snacks:

- *Walkers crisps* - 132 calories
- *Can of Pepsi* - 150 calories
- *M&S Cheese & Onion sandwich* - 497 calories
- *Snickers chocolate bar* - 213 calories
- *McDonalds Big Mac* - 508 calories
- *100g wholegrain rice* - 168 calories
- *1 cup of broccoli* - 31 calories
- *1 cup of carrots* - 52 calories
- *1 cup of cauliflower* - 25 calories

Now let's consider how many calories an adult female weighing 140lbs (10 st) would lose doing 1 hour of various exercise:

- *Moderate cycling* - 381 calories
- *Jogging* - 535 calories
- *Rowing* - 445 calories
- *Ice skating* - 445 calories
- *Playing squash* - 762 calories
- *Walking at a brisk pace* - 241 calories
- *Get Fit Today session* - 560 calories

It's easy to see how you can hit the 500 calories a day by possibly making a few changes to your current lifestyle. If you are prone to the occasional bag of crisps or snickers bar, and don't currently exercise then by adding in one hour of cycling and not having the snickers bar, you will have hit just over 500 calories already. Alternatively, just one hour in a Get Fit Today session will burn off the 500 calories

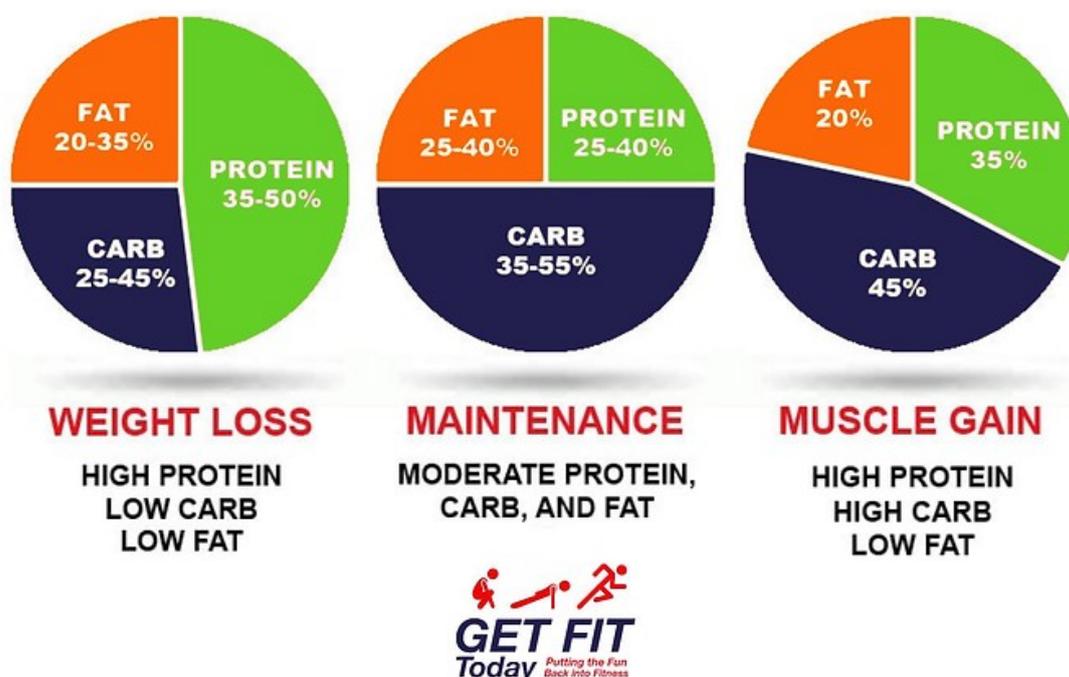
on its own, and if you then decide to cut out a Big Mac you were planning on for dinner, you've hit 1000 calories already!

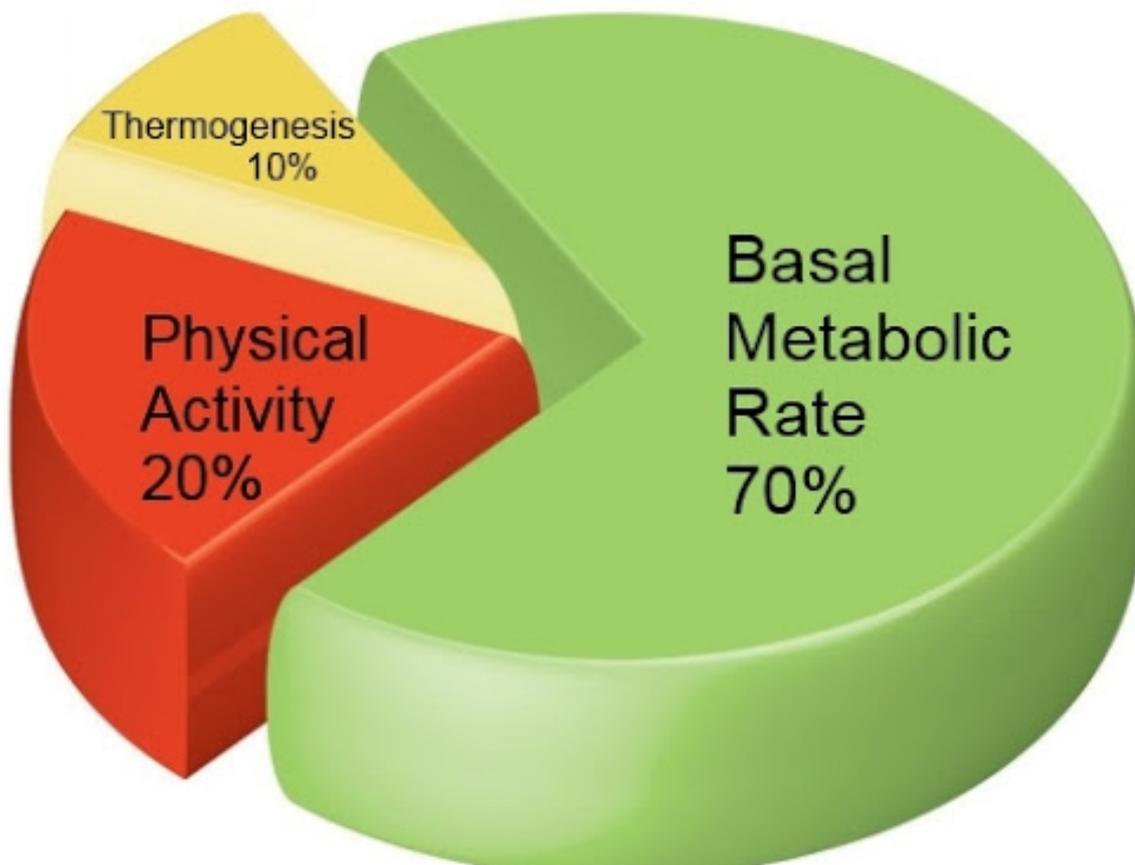
It's important to note however that not all calories are equal. Some foods contain considerably more nutrients and vitamins than others, so although simply reducing your calorie intake or increasing your energy expenditure will result in fat loss, you need to also make sure that you are putting the right 'type' of food into your body.

You could for instance live off of McDonalds for a month (*like Morgan Spurlock did as an experiment in the film 'Super-Size Me'*). If, during this time you do a lot of exercise (*and I mean a lot*) you could still potentially lose some weight, but the process of doing so would cause you no end of health related issues due to the amount of saturated fat and salt you have been consuming. What a thought!!

So, a healthy balance is looking at the type of foods you eat, see how much of these hit the recommended daily levels of carbohydrates, protein and healthy fats and then add some exercise in as well to help you reach a calorie deficit. Planning this in over a period of weeks to hit the weight loss goal you are looking for will make it easier to achieve and also help with maintaining your weight afterwards as well.

Don't worry too much about watching your macro's just yet, that's what the food diary part of this plan is all about. Once you send in your diary for a week, we will be able to give you some suggestions around healthy choices.





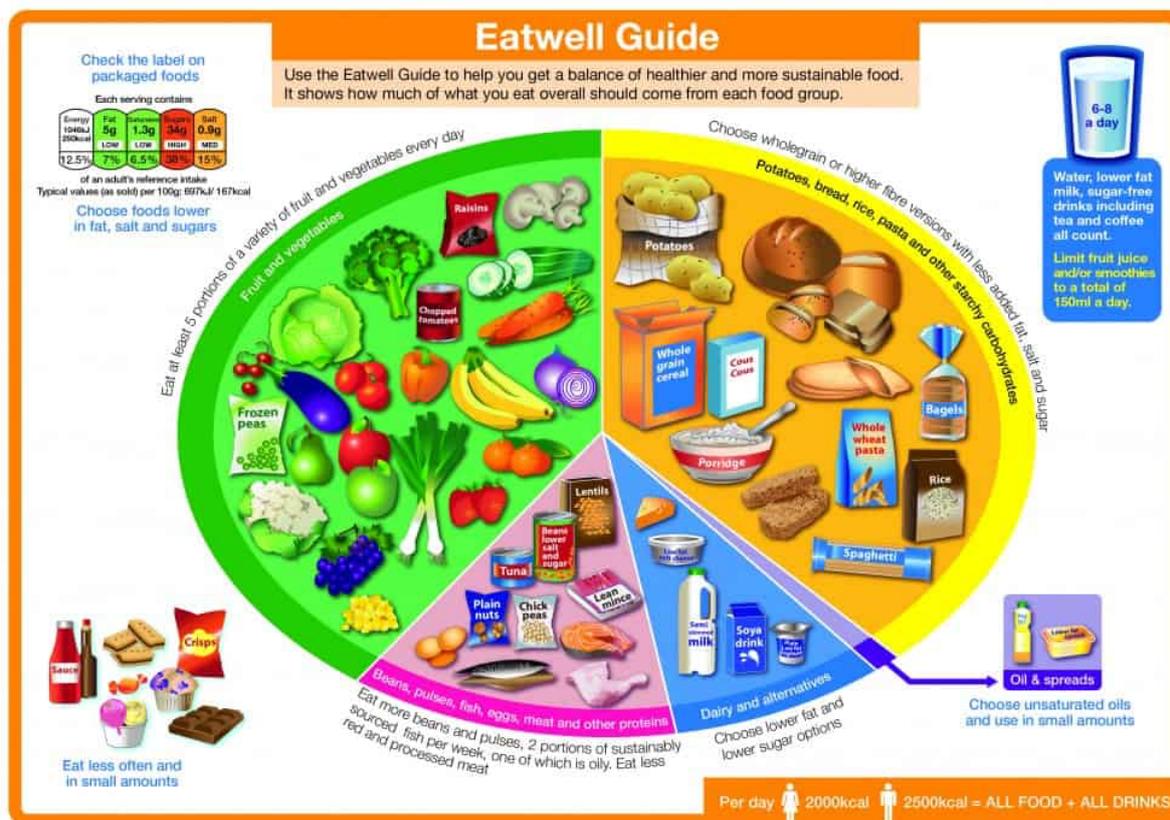
## BMR and Energy

BMR stands for Basal Metabolic Rate, which is the number of calories required to keep your body functioning at rest, also known as your metabolism. This is what we briefly touched on in the 1<sup>st</sup> chapter on page 5.

There is a complicated mathematical equation which has been around for over 100 years and was only slightly amended in 1990 to take into account modern lifestyles. The equation works out the amount of energy your body needs on a daily basis to maintain your current body weight and uses your age, height, gender and weight to calculate it. This is just to maintain your current body weight and does not take into account any exercise you do.

To get a truer reflection of your energy expenditure, we can add in an approximation of your 'physical activity level' (PAL) as well, be it sedentary, moderate or vigorously active. This result is a more accurate estimation of the number of calories your body uses on average per day.

Obviously, this is never going to be exact for everyone, but is the most accurate equation used and is perfectly fine for our basic nutrition plan. If you haven't completed your BMR calculation yet, please use the link provided in the initial email you received when you purchased the Basic Nutrition Plan to access this.



Source: Public Health England in association with the Welsh government, Food Standards Scotland and the Food Standards Agency in Northern Ireland. © Crown copyright 2016.

# NHS EATWELL GUIDE

The NHS [Eatwell Guide](#) shows how much of what we eat overall should come from each food group to achieve a healthy, balanced diet.

You don't need to achieve this balance with every meal but should try to get the balance right over a day or even a week. Most of us still are not eating enough fruit and vegetables, which should make up over a third of the food we eat every day.

The Eatwell Guide divides the foods we eat and drink into 5 main food groups:

1. Fruit & Vegetables
2. Carbohydrates such as potatoes, bread, rice and pasta
3. Protein – Beans, pulses, fish, eggs and meat
4. Dairy and alternatives
5. Oils and spreads

Try to choose a variety of different foods from each of the groups to help you get the wide range of nutrients your body needs to stay healthy.

It's important to get some fat in your diet, but foods that are high in fat, salt and sugar have been placed outside of the circular image as they're not necessary as part of a healthy, balanced diet and most of us need to cut down on these.

Unsaturated fats from plant sources (*for example, vegetable oil or olive oil*) are healthier types of fat.

But all types of fat are high in energy (calories), so they should only be eaten in small amounts. Most adults consume more calories than they need.

### **Combination foods**

Many foods, such as pizzas, casseroles, pasta dishes and sandwiches, are combinations of the food groups in the Eatwell Guide. With these meals, check the ingredients and think about how these fit with the sections on the guide to help you achieve a balanced diet.



## FOOD LABEL TRAFFIC LIGHTS

Once upon a time, the only reliable consumer information on a food label was the name of the food it contained! Things have fortunately changed for the better but sometimes the food labels now contain so much information, it can be overwhelming.

There are recommended maximum amounts that we should be eating of sugar, fats, saturates and salt but to remember the exact values of what is okay, what is above the level and what is high is pretty tricky. Fortunately for us, the traffic light labelling system is now in place on most foods.

You will sometimes see the term RI or DI which stand for 'reference intake' and 'daily intake'. This is a daily guidance based on the approximate amount of nutrients and energy needed in a healthy, balanced diet and are generally based on an 'average sized' woman doing an 'average' amount of exercise.

It is recommended that we eat around 2,000 calories a day (this does differ from person to person as we know based on the BMR and PAL 😊, but for ease of explanation, let's stick to 2000). This is broken down as follows:

- Total Fat - 70g
- Saturates - 20g
- Carbohydrates - 260g
- Total sugars - 90g
- Protein - 50g
- Salt - 6g

Using this food label as an example to work to, you can see that the amount of salt (sodium) in this food item contains 25% of your daily intake.

You can also see at the bottom of the form that the pack contains 2.5 servings, so if you were to eat it all you would actually be having 63% of your daily salt intake in one food item.

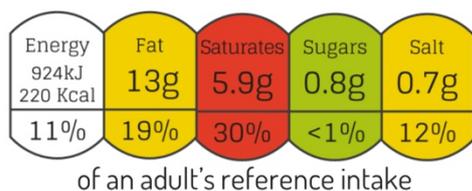
The traffic light system has been around for a while now and you will quite often see these displayed on the front of the food. It is an easy way to quickly check how healthy the food is.

The labels used show how many calories are in the food or drink item, and then displays the amount of fat, saturates, sugars and salt there is based on the recommended daily intake (DI) and are even colour coded to make it simple to understand.

Try to choose foods with more green and ambers displayed and fewer red labels.

<b>Nutrition Facts</b>	
Serving Size 100 g	
Amount Per Serving	
Calories 250	Calories from fat 10
% Daily Value*	
<b>Total Fat</b> 4%	4%
Saturated Fat 1.5%	4%
Trans Fat	
<b>Cholesterol</b> 50mg	28%
<b>Sodium</b> 150mg	25%
<b>Total Carbohydrate</b> 10g	3%
Dietary Fiber 5g	
Sugars 3g	
<b>Protein</b> 16%	
<b>Vitamin A</b> 1%	<b>Vitamin C</b> 3%
<b>Calcium</b> 2%	<b>Iron</b> 2%

This pack contains 2.5 servings  
 \*Reference intake (RI)  
 of an average adult (8400kJ / 2000kcal)



If the food label isn't available, you can work out whether it is low, medium or high for fat, saturates, sugar & salt by using the following guide (also at the top of this section):

- Total Fat** - High is more than 17.5g of fat per 100g  
Low is 3g of fat or less per 100g
- Saturated Fat** - High is more than 5g of saturated fat per 100g  
Low is 1.5g of saturated fat or less per 100g
- Sugars** - High is more than 22.5g of total sugar per 100g  
Low is 5g of total sugar or less per 100g
- Salt** - High is more than 1.5g of salt per 100g  
Low is 0.3g of salt or less per 100g

# CONCLUSION

If you have made it this far, well done and thank you for taking the time to read our Basic Nutrition Plan e-book, we hope you have found it useful and informative.

If I could summarize the e-book in 10 simple points, it would be these:

1. *Your body is like a car engine and needs fuel, just don't drink petrol! Energy for our body comes in the form of food.*
2. *The term Macro stands for Macronutrient meaning "a type of food you need in large amounts" and includes Carbohydrates, Proteins and Fats*
3. *Carbohydrates (or carbs) are things like brown rice, wholewheat bread and also fruit and vegetables and should make up around 60% of your daily food intake. Carbs are ideal for fuelling your body BEFORE exercise*
4. *Proteins include lean meat, fish, cheese, milk and eggs and should make up around 10-15% of your diet. The role of Protein is to repair and rebuild your muscles AFTER exercise.*
5. *Healthy fats are found in things like olives, hazelnuts, pistachios, olive oil, almonds, cashews, avocados and oily fish*
6. *The human body consists of around 50-70% water and the NHS recommend that we should drink 6 to 8 glasses of fluid a day. Water, lower fat milk and sugar-free drinks, including tea and coffee, all count.*
7. *There are 3,500 calories in 1lb of fat. To lose 1lb a week, you need to either reduce your calorie intake by 500 calories per day or increase your exercise so that burn off an extra 500 calories per day.*
8. *BMR stands for Basal Metabolic Rate and is how many calories your body burns during an average day resting.*
9. *PAL stands for Physical Activity Level and is the total energy expenditure of your body taking into account how active you are.*
10. *Look out for food labels when you are next in the supermarket and get into the habit of trying to choose foods with more green and ambers displayed and fewer red labels*