



GUIDE TO CALORIES

CALORIES IN
VS
CALORIES OUT



The purpose of this guide is to give you the tools to increase your understanding of calories, how they work and how we can use them to our benefit when trying to loose weight or gain muscle.

In this guide I cover how to use both quality and quantity of calories to help you achieve your goals. What we both know already just by you reaching out to me to get this guide is your habits, behaviour and general eating practise aren't in keeping with what you want to achieve with your physique.

I really hope you find this guide useful in further understanding the impact that calories can have on achieving your goals. If you would like a more tailored approach to your nutrition and training I can help you design a program that fits your lifestyle and will help you smash your health and fitness goals. If you would like to discuss this further, drop me a message and we can book a free strategy call.

Paul Wallace

WHAT ARE CALORIES?

Calories are the measurement for the amount of energy in an item of food or drink.

This is the amount of energy that once the food has been consumed and digested will be available to provide us with fuel to maintain normal day to day functions. Fuelling the body correctly will enable us to exercise at optimal levels. Depending on where the source of the calories come from depends on the structure of nutrients, fibre, amino acids, vitamins, minerals and antioxidants.

The 3 main sources we get calories from are Proteins, Fats and Carbohydrates.

Protein contains 4 cal per gram

Fats contain 9 cal per gram

Carbohydrates contain 4 cal per gram

A calorie is a unit of energy. So when we look at an individuals calorie intake it really is a numbers game. This is where we can talk about calories in (what we consume) vs calories out (what we use) being the major determining factor in how we can help to change your body.

Later in this guide I will help you get a better understanding of the thermic effect of food (TEF). Digestion, absorption, and disposal of nutrient.



IS A CALORIE REALLY JUST A CALORIE?

Foods that are highly processed are typically less filling than whole, unprocessed foods, although they might taste better for a moment or two, they fail to contain most of the nutrient dense vitamins and minerals that our body needs. Many processed foods that include alcohol also add more empty calories like solid fats and sugars to make them taste better.

When most people are asked what the foods they typically over-consume on the answer is almost always, food that contain high amounts of solid fats or added sugar. This is why fats and sugars are often wrongly blamed for an increase in weight, when really it's just the person is in a calorie surplus.

When hunger strikes we tend to seek out foods that are unfortunately higher in energy density (more calories) but low nutrient density (less nutrients) as they will temporarily fix the immediate problem of hunger.

Its also very easy to over-consume them because they often taste a lot nicer than nutrient dense fruit and vegetables.

A 1500-2000cal intake using whole and unprocessed foods is much easier to maintain than one using processed junk food. This is partly due to the critical nutrients that will give your body more energy and help your willingness and desire to exercise and physically move around more.





CALORIE DENSE

This is defined as the amount of energy, its representation on food labels by the number of calories in the food by a specific weight.

Energy-dense foods tend to have a much higher number of calories per serving. These types of food will usually contain a high sugar or fat content, often they will have both.

An example of a food with high energy density is milk or white chocolate. Chocolate (unless its a very high % dark) has lots of calories from the sugar and fat that fit into a small serving size but also bundles of taste. Green vegetables in comparison have a low energy density because there are only a few calories in a whole plateful yet do not do a great deal to satisfy the taste buds.

You should ideally try to and keep these to being a small part of your diet.

NUTRIENT DENSE

This is determined by the amount of nutrients in the food source.

The main categories the nutrients fall under is dietary fibre, complex carbohydrates, amino acids, antioxidants and dietary vitamins and minerals.

To use the same example, the spinach is packed full of nutrients yet the milk chocolate has very little.

Filling your diet with a higher proportion of nutrient dense food with a lower ratio of energy ultimately gives you a diet that can satisfy both hunger and taste whilst sustaining an intake of calories relative to your goals.

TASTE

Taste is one of the most important human senses, when it comes to food.

We experience and enjoy food on many different levels when it comes the sense, including smell, taste and appearance.

The food and drink we consume needs to be a appealing and not just satisfying. Taste and appearance is important to help keep us on track.

We get great pleasures from the taste of foods that we enjoy, research indicates that in addition to a food's nutritional composition, its taste, smell, texture, temperature, colour and appearance all affect its impact on satiety.

The first challenge we have is that a large amount of processed and highly manufactured foods, like sweets and alcohol have further empty calories added to them in the form of sugars and solid fats to make them more enjoyable.

FULFILLING

Fulfilling or Satiety is the term often used to explain the feeling of fullness, it can also refer to the suppression of appetite after eating a calorie dense meal or specific food combination that you really enjoy.

Food that we consider higher satiety will help prevent overconsumption because it makes you feel fuller than the lower calorie less desirable food often associated with dieting.

These are some of the characteristics that fulfilling foods often contain:

VOLUME:

These are foods that contain a lot of water or air. These are typically foods with a lower energy density.

PROTEIN:

Of all the macro nutrients protein is the easily the most fulfilling and satiating. Consumption of protein also helps regulate the levels of several hormones that impact satiety.

FIBRE:

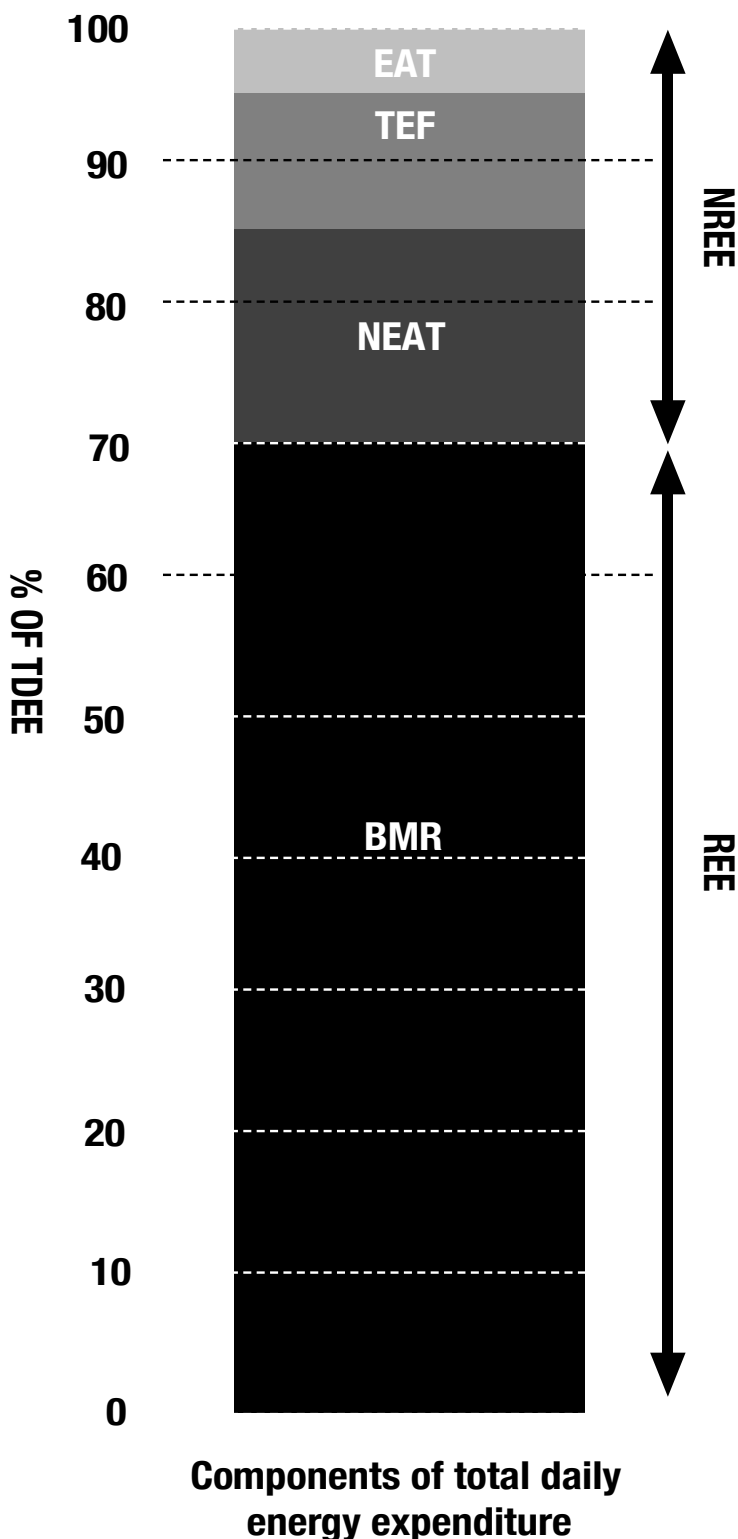
Fibre has many functions within the body, including slows down digestion and the emptying of the stomach. This can help you feel fuller for longer.

LOW ENERGY DENSITY:

Food that we consider lower in density means that its usually lower in calories for its weight. Foods with a low energy density are very filling. More often than not they contain a lot of water and fibre, but little fat. Pasta, rice, fruit and vegetables are naturally high in water and fibre.

T.D.E.E

Total Daily Energy Expenditure



If we want to either lose fat or build muscle it all comes down to calories in vs calories out at its most basic level. To help explain this a little better I'm going to break down in this graph to show you what contributes to your daily calorie expenditure.

T.D.E.E

Total Daily Energy Expenditure

Your daily expenditure can be broken down into two types. BMR or Non resting energy expenditure.

BMR

Basal Metabolic Rate is the number of calories required to keep your body functioning at rest. BMR is also known as your body's metabolism; therefore, any increase to your metabolic weight, such as exercise, will increase your BMR.

This accounts for up to 70% of your total energy expenditure. This is because even when we rest, our body is still utilizing energy to perform even the most basic functions such as breathing, blood circulation and the processing of nutrients have consumed when eating.

Non-resting energy expenditure.

This is made up of three main components and is given a metabolic value that corresponds to the energy cost of physical activity, which represents approximately 30% of the total energy expenditure.

Non-exercise activity thermogenesis. (N.E.A.T)

Is the energy expended for everything we do that is not sleeping, eating or sports-like exercise. It ranges from the energy expended walking around at work, typing, performing household work, gardening and even things like fidgeting and reaching for the TV remote! Changing

daily habits and the amount of activity and general movement can massively improve the amount of energy we burn, as NEAT accounts for much more energy expenditure than EAT does.

EAT or Exercise Activity Thermogenesis

This is where our planned and structured, physical activity and exercise comes into play. IF you are going to the gym or playing a regular sport, it will fall under this category. Although this only makes up around 5% of the actual calories we burn as most people only do active exercise for 30-90mins a day.

T.E.F (Thermic effect of Food)

The thermic effect of food (T.E.F) also known as diet-induced thermogenesis or postprandial thermogenesis, is a reference to the increase in metabolic rate (i.e. the rate at which your body burns calories) that occurs after ingestion of food. Our body, more specifically our digestive system uses energy/calories to digest, absorb and store nutrients from food.

FOOD LABELS

All nutrition information on food labels should be provided per 100 grams of the product. It will often also be shown per portion or serving size as well. I recommend basing any calculation you might make off the 100gram information as the serving sizes can often be random numbers and also many not be a true indication of what you're actually having. Food labels will also have a list of ingredients found in the product. Ingredients are listed from greatest to smallest by weight, so the main ingredients in the packaged food will always be listed first. Using the first three ingredients gives us a good idea of the constituents of a product but in many cases you will need to understand some of the names better:



ENERGY

This is described as the amount of energy in a set food or drink, its measured in calories. On food labels, the calorie content is given in kcal and kJ, which are short for kilo calories and kilojoules. Kilojoules are the metric measurement of calories.

PROTEIN

This is shown as the total amount of protein in the food or drink.

CARBOHYDRATES

These can be broken down into 3 main groups; Sugar, fibre and starch. This is then broken into 2 groups, complex and simple.

Complex carbs are Fibre and starch based. While simple carbs are sugar based. Depending on the values of each of these in the food or drink helps determine its nutrient quality and density. Ideally you want to be looking for foods higher in complex carbs. Simple carb based foods do have their place in nutrition plans like pre or post workout.

FIBRE

Fibre is made up of the indigestible parts or compounds of plants, which pass relatively unchanged through our stomach and intestines. Fibre is mainly a carbohydrate. The main role of fibre is to keep the digestive system healthy. Your daily target is 30g of fibre per day.

STARCH

Starchy foods are a good source of energy and the main source of a range of nutrients in our diet. As well as starch, they contain fibre, calcium, iron and B vitamins. Wholegrain varieties of starchy foods and potatoes (particularly when eaten with their skins on) are good sources of fibre.

SUGAR

This shows how much of the carbohydrate content of the food or drink comes from sugars.

SALT

This is the amount of salt that is in the product. While most sodium comes from salt, some can be naturally occurring in food.

FAT

Saturated Fats

These are easy to distinguish as they're solid at room temperature, these are mostly found in red meat and coconut or palm oil.

UNSATURATED FATS

These are liquid at room temperature – consisting of oils mostly from plants, for example corn/peanut oil. There are also mono-unsaturated and polyunsaturated fats which are considered the healthy fats, these are found in avocados, nuts and sunflower oil.

TRANS-FATS

Most commonly known as man-made fats, produced by a chemical process known as hydrogenation; where hydrogen is added to liquid oil, often to harden the structure.

POLYOLS

These can also be called sugar alcohols, are used as food ingredients to replace sugar in many sugar-free and reduced-calorie foods and beverages. In some people, excessive consumption of polyols may cause gastrointestinal distress.

VITAMINS OR MINERALS.

If the food has what would be deemed as a significant contribution of vitamins or minerals it can be listed and if the food is fortified (extra nutrients added) these also need to be listed.

These are other names you may find for added fats and sugars:

Animal fat/oil, beef fat, butter, chocolate, milk solids, coconut, coconut oil/milk/cream, copha, cream, ghee, dripping, lard, suet, palm oil, sour cream, vegetable shortening. Dextrose, fructose, glucose, golden syrup, honey, maple syrup, sucrose, malt, maltose, lactose, brown sugar, caster

THE TRAFFIC LIGHT SYSTEM

The traffic light labelling system will tell you whether a food has high, medium or low amounts of fat, saturated fat, sugars and salt. It will also tell you the number of calories and kilojoules in that particular product. These helps the us see very quickly if the nutritional values of the product are good or bad for our daily allowance.

When looking for healthy options we should be aiming to select food with mostly green or amber on the label. This should mean they are nutrient dense. Pay close attention to the serving size, although most will be written in 100gms or 100ml some can be very misleading and be measured in different serving sizes if it helps the product fall into the green or amber coding.

FAT

High in fat is more than 17.5grams per 100grams.
Low in fat is 3grams or less per 100grams.

Saturated Fat

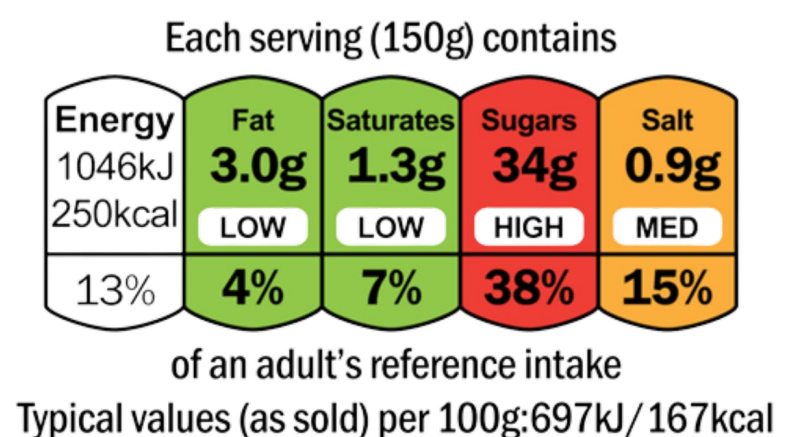
High in saturated fat is more than 5grams per 100grams.
Low in saturated fat is 1.5grams or less per 100grams.

Salt

High in salt is more than 1.5grams per 100grams.

Sugar

High in sugar is more than 22.5grams per 100grams.
Low in sugar is 5grams or less per 100grams.



HOW CAN I HELP YOU?

How Many Calories Do We Need?

Calculating your food intake and energy requirements is vitally important when you're trying to lose weight. If you need help in doing this, please reach out to me and I'll be more than happy to help you.

Giving you a selection of recipes and combinations of food to create yourself could be only part of a solution. But perhaps you lack the skills to create it to become part of a sustainable plan. If you are lucky enough to have those skills, I will happily provide you with ideas and recipes to make your diet more satiating, nutritionally dense and in alignment with your goals. If you don't I will also assist you with the knowledge of making good food choices if you buy on the go.

Together we can take into consideration where you eat, when you eat, who you eat with, the time you have to eat, your budget and where you get your food from.

“You can't control everything in your life. But you can control what you put into your body”



paul_wallace_fitness