KelFit

Keep fit with Kel

Nutrition Guide

Welcome

I really hope you find this guide useful in understanding the impact that nutrition can have on achieving your goals.

This guide will help you understand food labels, calories and nutrition in general. If you would like further advice after reading this guide please contact me.

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WHAT ARE CALORIES?

Calories are 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 cals per gram

Fats contain 9 cals per gram

Carbohydrates contain 4 cals 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.

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 foods they typically over-consume the answer is almost always, food that contains 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 a person is just 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.

It it also very easy to over-consume these types of food because they often taste a lot nicer than nutritious fruit and vegetables.

When a person is consuming 1500-2000 calories using whole and unprocessed foods it is much easier to maintain than when eating processed junk food. This is partly due to the critical nutrients that are in whole and unprocessed foods that will give your body more energy and make you want to exercise and move around more.

CALORIE DENSE

Calorie density defines the amount of energy in your food, its representation is 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 both a high sugar or fat content.

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 give it bundles of taste. Green vegetables in comparison have a low energy density because there are only a few calories in a whole plateful yet they do not do a great deal to satisfy taste buds.

You should ideally try and keep calorie dense foods to being a small part of your diet.

NUTRIENT DENSE

Nutrient dense 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.

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.

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

The food and drink we consume needs to be 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.

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:

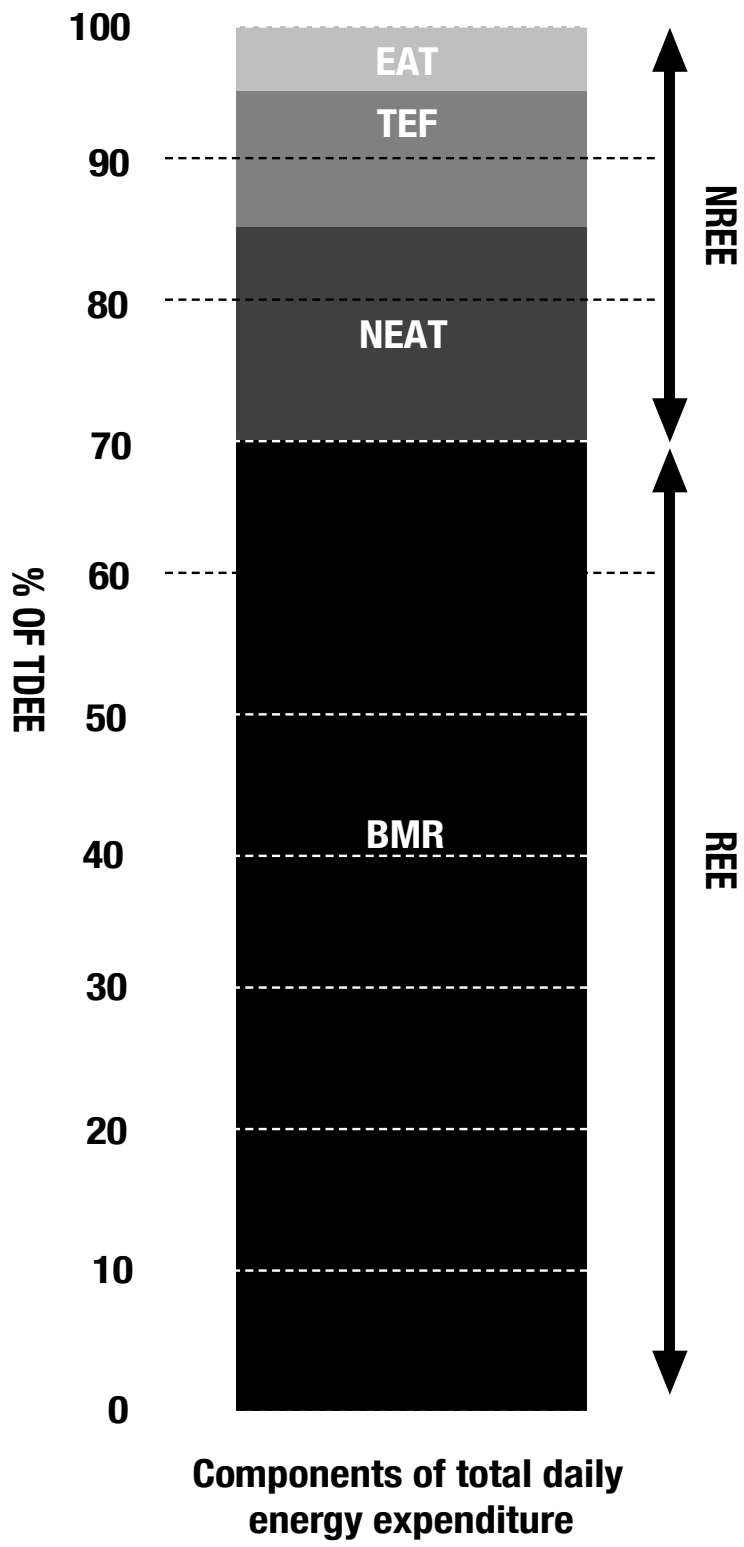
VOLUME:
These are foods that contain a lot of water or air. These are typically foods with a lower energy density.

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 slowing down digestion and emptying of the stomach. Fibre can help you feel fuller for longer.

LOW ENERGY DENSITY:
Food that we consider lower in density means that its usually lower in calories comparable to 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. Examples of foods that are naturally high in water and fibre are Pasta, rice, fruit and vegetables.

T.D.E.E
Total Daily Energy Expenditure



Please find below a graph that shows 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 general movement we do 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

Nutritional information on food labels should be provided per 100 grams of the product. It may often also be shown per portion or serving size. You may want to base any calculation you make from the 100grams information provided on the label. Food labels also have a list of ingredients that are found in the product, the Ingredients are listed from greatest to smallest by weight, so the main ingredients will always be listed first. Using the first three ingredients gives you a good idea of the constituents of a product but in many cases you will need to understand some of the labels better:

ENERGY
This is described as the amount of energy in 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 food or drink will help determine its nutrient quality and density. Ideally you want to be looking for foods higher in complex carbs even though simple carb based foods do have their place in nutrition plans both 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 and its main role is to keep the digestive system healthy. Your daily target should be 30g of fibre per day.

STARCH
Starchy foods are a good source of energy, they are one of the main sources of nutrients in our diet and they contain fibre, calcium, iron and B vitamins. An example of a wholegrain variety of starchy foods include potatoes (particularly when eaten with their skins on) as they are good source 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 and are used as food ingredients to replace sugar in many sugar-free and reduced-calorie foods and beverages. For 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 us see very quickly how the nutritional values of the product compare for our daily allowance.

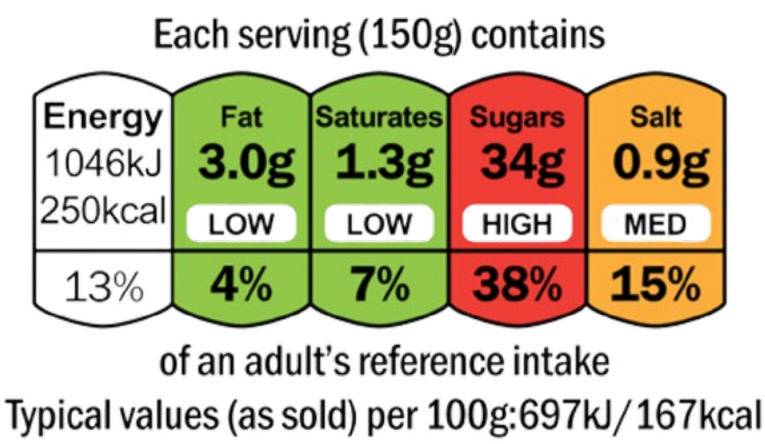
When looking for healthy options we should be aiming to select food with mostly green or amber on the food label as this should mean the food is nutrient dense. Make sure you pay close attention to the serving size, although most will be written in 100gms or 100ml some can be very misleading and be measured 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.



I hope you have found this guide useful but if you need further advice please contact me and I will happily provide you with ideas and recipes to make your diet more satiating, nutritionally dense and in alignment with your goals.

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Designed and produced by @Nutritional_bear