#### INTRODUCTION TO NUTRITION

#### **CALORIES**

Most people have heard of calories and they know they have something to do with nutrition, but what actually is a calorie?

A calorie is simply a unit of energy. More specifically, a calorie is the amount of energy needed to raise the temperature of 1 litre of water by 1 degree Celsius.

So when you eat food, you are consuming the energy that is stored within the protein, carbohydrate, and fat of that food. The total amount of the energy stored in the food you are eating is represented by the calorie content of the food, shown on its nutritional label. You consume calories through anything you eat and drink!

## How does your body use calories?

Your body is capable of doing only two things with the calorie energy that it absorbs; it must either burn it or store it.

When we eat food the calories that are in it can never disappear or be destroyed, they can only change form. When we eat them, calories do not disappear but rather are transformed, or "burned," into the different types of energy that your body uses, OR, if they aren't burned, they are stored again as fat. Therefore any calories that you consume and do not burn must be stored in your body.

# Calorie rules for weight loss and weight gain.

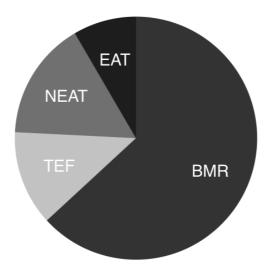
What we've learned so far leads us to some very simple rules about calories by which weight loss and weight gain can be explained. These rules are absolutely fundamental to determining how much you weigh.

- If you eat more calories than you burn you will gain weight.
- If you burn more calories than you eat you will lose weight.
- If you eat the same amount of calories that you burn your weight will not change.

To keep itself alive your body is always burning at least some minimum amount of calories that are used to support the function of vital organs like your heart, brain, nervous system, lungs, kidneys, liver, muscles, and skin. This rate of calorie burn is called your **basal metabolic rate**. If you want to accomplish anything beyond simply staying alive, such as moving your body for example, you will have to burn extra calories to do it. Below is an explanation of different contributors to your calories burned or calories out.



## **Calories Out**



The chart above shows the four different contributors to our calories out. You don't really need to know all these but it can be useful to know!

**Basal Metabolic Rate (BMR) -** This is the amount of calories required to sustain life if all you did was just lay in bed all day doing absolutely nothing. We can't manipulate this one to any real extent, it is what it is.

**Thermic Effect of Feeding (TEF)** - Your body actually burns calories in response to eating food, mostly the act of eating and digesting it all. Protein induces the highest level of TEF out of all macronutrients.

**Exercise Activity Thermogenesis (EAT)** - This is the most obvious one when looking at the amount of calories you burn. Exercise! This is any planned physical activity that you engage in so football, boxing, resistance training, running, cycling etc. This is often where people go to achieve fat loss but there is only so much that can be achieved here, if other areas are ignored efforts here will be futile (and ultimately extremely frustrating).

Non-Exercise Activity Thermogenesis (NEAT)- This is all the calories you burn through physical activity that you do that is 'unplanned' or at least not in the same sense as exercise is planned. It refers to activities like walking to the shops, walking around town, household chores, dancing around a nightclub etc. Any physical activity at all that isn't planned, it can literally be anything. The pie chart gives an idea of how much this can really contribute to your calories out. Often more than EAT!



Hopefully that helps give a better understanding of calories and give a better idea of how that might affect you and your goals. We will look at the specifics for you at a later stage, it's just about getting the basics down for now.

Now, from here it is very easy to fall into the trap that calories are the be all and end all, but this is not the case. The composition of our diet matters and we must consider macro and micro nutrients too. Collectively protein, carbohydrates, fats (and fibre) are regarded as **macronutrients**. This means they are nutrients that have to be eaten in macro (or large) quantities compared to the **micronutrients** which only need to be eaten in small amounts.

In the next few sections I will explain exactly what each macronutrient does and means. Often these next sections are the ones that most people will have a harder time understanding. Not because it is difficult material, but rather because with this greater understanding, your current ideas on nutrition will likely be challenged. For example, you may think eating cereal with orange juice in the morning constitutes a good balanced meal, and if I suggest that you need to get protein at every meal including breakfast, you begin to wonder what does that even look like in a practical setting for you. Lot's of thoughts will likely go through your head before we even get into implementing this stuff so just bare with me!



## **MACRONUTRIENTS**

#### **PROTEIN**

Protein is one of the basic components of food and it is actually what makes all life possible. Protein can be further broken down into amino acids (often referred to as the building blocks of proteins).

All of the antibodies and enzymes, and many of the hormones in the body are made from proteins. They provide the structure and contracting capability of muscles. They also provide collagen to the connective tissues of the body and to the tissues of the skin, hair and nails.

Proteins also contain roughly **4 calories per gram**. Generally, I recommend that people eat more protein! Most people need way more protein than they're likely eating currently. This is the area people usually struggle with most when implementing dietary changes, but more on this later.

Protein is harder to process than carbs or fat, therefore your body has to burn more calories to metabolise it (see TEF above!). Also, eating more protein will help you gain and keep more muscle, which will result in your body burning more calories at rest and giving shape and tone to the body. That's exactly what you want.



It can be hard to conceptualise what foods actually contain protein, unless you have been actively trying to get more protein into your diet for awhile already. Humans don't eat macronutrients, we eat food. Although as I have just explained the food we eat does contain macronutrients, we find it is way easier to understand what protein containing foods are by actually talking in terms of food.



So below you will find a table of protein sources, that should give you a better understanding of where you can find protein in your diet.

PROTEIN SOURCES								
MEATS	DAIRY	VEGETABLE PROTEINS	SUPPLEMENTS					
POULTRY: CHICKEN, TURKEY, GOOSE, GAME BIRDS ETC.	MILK: WHOLE FAT, LOW FAT, SUPER MILK ETC.	NOTE: OFTEN THESE ARE INCOMPLETE PROTEINS, MEANING THEY DON'T	AVAILBABLE IN POWDERS, BARS, DRINKS ETC. WITH A FEW TYPES AVAILABLE					
RED MEAT: ANY QUALITY LEAN MEATS FROM COWS, ELK, BUFFALO, Kangaroo, Wild Game	MILL: WRULE FAI, LUW FAI, SUPER MILK ETC.	CONTAIN ALL THE AMINO ACIDS WE NEED, SO IT'S WISE TO USE THESE IN COMBINATION WITH OTHER SOURCES LIKE MEAT OR DAIRY	WHEY PROTEIN: A FAST DIGESTING MILK PROTEIN. AVAILABLE IN Various forms e.g. concentrate, isolate etc,					
OTHER MEATS: PORK, LAMB, LEAN HAM ETC. (ENSURE LEANER CUTS ARE Consumed as these meats can be quite fatty)	CHEESES: CHEDDAR, RICOTTA, COTTAGE (CHEESES CAN BE VERY HIGH In Fat, so be aware of portion sizes. This is why we shoukd	RAW NUTS AND SEEDS: THESE CAN ALSO BE HIGH IN HEALTH FATS AND	CASEIN PROTEIN: A SLOW DIGESTING MILK PROTEIN.					
FISH: FRESH COD, SALMON, CANNED FISH (MOST FISH ARE LEAN BUT The Fattier Fish are High in Healthy Fats)	LOOK AT FOODS RATHER THAN MACROS. IT CAN BE POSSIBLE FOR A FOOD TO BE HIGH IN ONE MACRONUTRIENT BUT EVEN HIGHER IN ANOTHER MACORNUTRIENT)	CARBOHYDRATES SO ITS IMPORTANT TO BE AWARE OF THIS	EGG PROTEIN: PRIMARILY THE PROTEIN ALBUMIN OR EGG WHITES. Slow digesting protein					
SHELLFISH: MUSSELS, DYSTERS, SCALLOPS, PRAWNS, LOBSTERS ETC.	YOGHURTS: GREEK YOGHURT, NATURAL YOGHURT, KVARG, SKYR ETC.( These include benefits of Bacterial Cultures to improve Gut	BEAN / VEGETABLE PROTEIN: SOYBEANS, KIDNEY BEANS, BROCCOLI,	SOY PROTEIN; DERIVED FROM SOYBEANS					
EGGS: EGGS (WHITES ARE PURE PROTEIN, EGG YOLKS CONTAIN FAT AND PROTEIN)	HEALTH, BUT THEY CAN ALSO BE HIGH IN FAT OR CONTAIN UNDESIRABLE ADDITIIVES LIKE SUGAR)	RICE, PEAS ETC.S	VEGETABLE PROTEIN: CAN BE FOUND IN FORM OF PEA, RICE, SPIRULINA ETC.					

## Is there a best time to eat protein?

Ideally you would consume some protein at every meal you eat, as it is the most satiating macronutrient (keeps you fuller for longer) and is responsible for so many processes in the body. Certainly, it is important to have protein around exercising!



#### **CARBOHYDRATES**

Carbohydrates are the main source of energy for all bodily functions and muscular exertion. They are necessary for the digestion and assimilation of other foods, and they help regulate protein and fat metabolism. They also provide some of the structural components necessary for the growth and repair of tissues. All carbohydrates contain roughly **4 calories per gram.** 

Carbohydrates can be broadly broken down into two categories, simple carbohydrates and complex carbohydrates. While it is tempting to demonise carbohydrates, and especially the simple carbohydrates, as being bad for body composition goals, this is simply not the case. By no means am I saying that you should eat lots of simple carbohydrates, but I want you to understand that it is the **overconsumption of calories in general**, rather than a certain component of the diet that deserves the demonisation. This point is often overlooked!

Now, as we will discuss <u>later on more in depth</u>, you should generally focus on getting **more complex carbohydrates in the diet than simple carbohydrates**. But what are simple and complex carbohydrates? Here is a table!(You may need to zoom in!)

CARBOHYDRATE SOURCES					
COMPLEX	SIMPLE				
THESE ARE LONG CHAINS OF SIMPLE CARBOHYDRATES, THAT BREAKDOWN INTO SIMPLE CARBOHYDRATES ONCE DIGESTED	THESE ARE SMALL MOLECULES OF CARBOHYDRATES (OR SUGARS)				
POTATOES, SWEET POTATOES, PUMPKIN AND SQUASH	FRESH FRUIT AND BERRIES (CONTAIN MAINLY FRUCTOSE, A LOW GI SUGAR)				
YAMS, PARSNIPS AND OTHER ROOT VEGETABLES	SUGAR CANE, SUGAR BEETS (MAIN COMMERCIAL SOURCES OF TABLE SUGAR)				
WHITE AND BROWN RICE	HONEY (CONTAINS A MIX OF GLUCOSE AND FRUCTOSE)				
RAW NUTS, SEEDS, BEANS AND OTHER PULSES	MILK AND MILK PRODUCTS (CONTAINS THE SUGAR LACTOSE)				
VEGETABLES	PREPARED SUGARS (GLUCOSE, FRUCTOSE, LACTOSE, MALTOSE ETC.); THESE ARE OFTEN FOUND IN DRINKS OR TABLE SUGAR				





# Eat more veggies and less processed carbs.

Yes, vegetables do actually fall under the category of carbohydrates, and although when I say carbohydrate you may initially think rice, pasta, bread, potato etc. these are just high carbohydrate food stuffs, and carbohydrates are actually found in a whole host of things. Regardless of where you are with your nutrition, eating less processed carbohydrates (those that contain a high proportion of simple carbohydrates) and more vegetables will likely lead to the best results, from a health, body composition and performance standpoint.

# Is there a best time to eat carbohydrates?

To an extent there really isn't a best time for carbohydrate intake, however there are better times to consume them. It should be noted that there is a high degree of variability between individuals and how they respond to carbohydrate intake. So this will likely take a little bit of playing around with to really dial it in for you as an individual. For everyone the best time to eat your carbohydrates is probably going to be around when you are most active i.e. around training. Some people will do better eating some of their carbohydrates in the morning, while others may feel better eating their carbohydrates in the evening, there is a lot of variability here. When deciding when to eat your carbohydrates I always try to remember that food is supposed to give you energy, so if you are feeling sluggish after eating a high carbohydrate meal, then that may not have been the right time to eat carbohydrates for you.



#### **FATS**

Most people have unfortunately only been exposed to negative nutritional education on fat. This has lead to a fear and misunderstanding of fat intake. Dietary fat won't make you fat! Whether you gain, lose or maintain your bodyweight comes down to calories. Not a specific food or nutrient.

Dietary fat is either saturated, monounsaturated, or polyunsaturated, based on the number of double bonds that exist in the fat's molecular structure. For each of these three classes, there exists a large number of different chemical variations or "isomers". These include the EFA's or Essential Fatty Acids. You don't really need to know that.

Fats are required to produce and build new cells. They are a source of energy and are critical in the transmission of nerve impulses and brain function and development. They are also involved in the synthesis of other essential molecules such as hormones. Fats contain **9 calories per gram.** Here is a table on some different sources, you may need to zoom in here again!

FAT SOURCES					
ANIMAL	VEGETABLE				
THESE CAN BE HIGH IN MONO AND POLYUNSATURATED FATS AND SATURATED FATS. CONTAIN ESSENTIAL FATTY ACIDS (EFA'S)	THESE ARE MOSTLY HIGH IN MONO AND POLYUNSATURATED FATS AND CONTAIN EFA'S				
SALMON, COD, HALIBUT, SHELLFISH AND OTHER FATTY FISH/FISH OILS (FISH ARE HIGH IN UNSATURATED FATS AND EFA'S)	FLAXSEED, HEMPSEED, EVENING PRIMOSE, ALMOND, CANOLA, OLIVE AND MOST OTHER PLANT OILS				
DAIRY PRODUCTS (THESE VARY IN FAT CONTENT AND CAN CONTAIN HIGH LEVELS OF SATURATED FAT)	WHOLE RAW NUTS AND SEEDS (SOME WHOLE SEEDS NEED TO BE CRACKED OR GROUND TO BE DIGESTED)				
LEAN MEAT AND POULTRY (EVEN WHEN TRIMMED AND SKINLESS, THESE PROVIDE FAT. THEY CAN BE HIGH IN SATURATED FAT)	MEDIUM CHAIN TRIGLYCERIDE (MCT) OILS (THESE ARE MEDIUM CHAIN SATURATED FATS DERIVED FROM				
EGGS (ONLY THE YOLK CONTAINS FAT, MAINLY SATURATED)	COCONUT OIL)				



### Is saturated fat bad?

Saturated fat itself is not bad. Although it has been demonised as the cause of everything from heart disease to obesity, it isn't bad in moderation. The poison is in the dose, as the saying goes. Eating foods that lead your fat consumption to be overly skewed to a higher proportion of saturated fat (eating greasy frys every day, putting butter on everything etc.) isn't that great. But neither is eating a ridiculously high amount of polyunsaturated fats. So it is generally sound advice to get a good balance of fats in the diet.

The only fat we actually want to avoid is **trans fat**, as it really doesn't have a place in the human diet. So that means avoiding thinks like biscuits, baked goods (not home made), and generally highly processed foods where possible. Doesn't have to be avoid always but just being aware of this. It is usually trans fats that is to blame for arguments against fat!

### Is there a best time to eat fats?

To an extent, no there isn't a best time to consume your fats. Some people will do better with lower carbohydrates, and as a result higher fats, in the morning and vice versa in the evening. But that is purely personal preference. I generally like to just spread fat intake throughout the day, and if you are eating mainly whole foods it won't be hard to get a good spread of fat in throughout the day. There is probably a less favourable time to get your fats in, and this is immediately after your workout. It actually doesn't make a huge difference in overall results, but after training we do want to refill glycogen stores (essentially your bodies carbohydrate stores) and eating fats at this time will slow that process down. Again it's nothing worth losing sleep over, but it is a consideration.





#### **FIBRE**

Fibre theoretically has no caloric value but is still classed as a macronutrient. Dietary fibres are large carbohydrate molecules containing many different sorts of carbohydrates. The key difference between fibre and other carbohydrates is that they are not broken down by the human digestive system. Well this is what you will commonly hear at least. They are however digested (fermented) by the gut bacteria, and they do provide some caloric value to humans. However, their main benefit comes in the form of feeding the gut bacteria, and provide bulk to stools. They help keep you regular.

There are two types of fibre; soluble and insoluble, and these are often found together in the same source.

## **Soluble Fibres**

Can be dissolved in water (hence the name). These fibres are beneficial in that they can slow the speed of digestion due to their thickness, allowing your body absorb more nutrients. They are also very helpful in maintaining good artery health.

## **Insoluble Fibres**

These are fibres which do not dissolve in water. Insoluble fibres do not affect the speed of digestion. These are very beneficial to good gut health.

SOURCES OF FIBRE
BROCCOLI / CAULIFLOWER / CABBAGE
CELEYR / LETTUCE / SPINACH / WATERCRESS
MUSHROOMS / ONIONS / CARROTS
GREEN BEANS / PEAS / ASPARGUS / KALE
BEANS / VEEGETABLE SPROUTS
CUCUMBER /COURGETTE / ZUCCHINI / AUBERGINE
TOMATO / CAPISCUM
FROZEN MIXED VEGETABLES
ANY OTHER NON-STARCHY VEGETABLES, OF ANY COLOUR
FRUITS AND BERRIES



### Is there a best time to eat fibre?

As with fat there is not best timing, and spreading fibre (and thus vegetable) intake throughout the whole day will give best results. This will help stabilise blood sugar to some extent, but also ensure you are getting a variety of nutrients throughout the day. The only time it may not be the best idea to have lots of vegetables, is around training. Before training may cause stomach upset, especially with lots of running, but this is individual and for after training is the same reason as not having large amounts of fat post workout, we want to get glucose stores back up quickly so slowing digestion down with fibre isn't ideal. But as with fat, this isn't a big deal in the grand scheme of things and results won't be compromised by having fibre with your post workout meal.

#### WATER

Although technically not classified as a macronutrient, water is essential to life and needs to be digested in macronutrient size quantities. So we are going to class it as a macronutrient for this discussion, despite water having no caloric value.

Water is obtained by drinking fluids and by eating food. It is mainly lost through perspiration, respiration and urination. Water is the basis for the fluids of the body. Water makes up more than two-thirds of the weight of the human body. Without water, humans would die in a few days. All the cells and organs need water to function. Water is the basis of blood, saliva and the fluids surrounding the joints. Water regulates the body temperature through perspiration. It also helps prevent constipation by moving food through the intestinal tract and eliminates waste from the body through filtering by the kidneys.

The human brain is around 80% water by weight and is very sensitive to dehydration. (Bad brain hydration likely leads to cognitive impairment, and in the context of this document, it will likely lead to poor food choices). Adequate hydration is just as important, if not more important than adequate nutrition. In a survival situation, hydration is much more important than nutrition.

I recommend roughly 40 ml per kg of body weight. So for a 100kg person that means 4L water daily. For a 50kg person that means 2L per day. The majority of people fall somewhere in that range, so a blanket statement of 2-4L per day is often used, but if you want to be more accurate you can workout how much you need for yourself by multiplying your bodyweight in KG by 40ml. This will give you your target in millilitres! Divide by 1000 to get litres!



#### **GETTING THE MOST OUT OF YOUR DIET**

The majority of people are aware of what good food choices look like, and I' m not going to hammer you with more information on what to eat. You already know this information. However, what I do want to make you aware of is, how to make better choices and understand your diet a little bit better. (I will also be recommending potential food swaps or meals as we go)

To do this I have created (\*copied\* except with some of my adjustments) a (hopefully) pretty handy food guide chart, that not only shows you where a food stuff falls (from Avoid up to Best), but also allows you see where you can make better choices in the same category.

	BEVERAGES	VEGETABLES	OILS & FATS	NUTS & LEGUMES	DAIRY	PROTEIN	STARCH	FRUIT
BEST	COFFEE, GREEN TEA, MINERAL Water, Coconut Water	BOK CHOI, BRUSSEL SPROUTS, FENNEL, CELERY, CABBAGE, BROCCOLI, AVOCADO, CAULIFLOWER, KALE, COLLARDS	RED MEAT FAT, AVOCADO OILS, COCOA Butter, Sunflower Lecithin	COCONUT, OLIVES	BUTTER, GHEE	BEEF, LAMB, PASTEURISED EGGS, FREE Range Chicken, Turkey	SWEET POTATO, YAM, CARROTS, Pumpkin, Squash	BLACKBERRY, CRANBERRY, LEMON, LIME, RASPBERRY, STRAWBERRY, AVOCADO, COCONUT
GREAT	FILTERED WATER, FRESH NUT MILK	SPINNACH, ZUCCHINI / COURGETTE, LETTUCE, GREEN BEANS, CARROTS, BUTTERNUT SQUASH, LEEKS	GRASS FED BUTTER, FISH OIL	ALMONDS, CASHEWS, HAZELNUTS, PECANS	GRASS FED CREAM	SALMON, FLOUNDER, TROUT, SOLE, SARDINES, HADDOCK, COD, PORK, DUCK, GOOSE	WHITE RICE, TARO, CASSAVA	PINEAPPLE, TANGERINE, GRAPEFRUIT, POMERGRANATE, BLUEBERRIES
GOOD	TAP WATER , MILK	ONION, SHALLOTS, PEPPERS, Tomatoes, Mushrooms	PALM OIL, OLIVE OIL, RAW ALMONDS, HAZELNUTS, WALNUTS, CASHEWS	CHEST NUTS, WALNUTS, BRAZIL NUTS, Hummus, Dried Peas	FULL FAT MILK, ORGANIC YOGHURT	FACTORY EGGS, FACTORY CHICKEN AND TURKEY	BROWN RICE, OATS, BANANA, POTATO, BLACK RICE, WILD RICE, QUINDA	APPLE, APRICOT, CHERRIES, BANANA, Mango, Melons, Papaya
FINE	FRUIT JUICE , SOYA MILK , ZERO Gaorie Drinks , Tea	CORN	SOY, CORN, VEGETABLE, PEANUT, CANOLA	DRIED BEANS, LENTILS, PEANUTS	SKIMMED MILK, LOW FAT MILK, FAKE BUTTER, LOW FAT YOGHURT	FARMED SEAFOOD, RICE AND PEA PROTEIN	WHEAT, MILLET, CORN STARCH, POTATO STARCH	CANTALOUPE
AVOID	PACKAGED JUICES , FIZZY DRINKS	CANNED VEGETABLES	MARGARINE, COMMERCIAL LARD	SOY, SOY NUTS, CORN NUTS	POWDERED MILK, DAIRY REPLACER	SOY PROTEIN, WHEAT PROTEIN	PASTAS, HIGHLY PROCESSED CARBS	RAISINS, DRIED FRUITS, JELLY, CANNED FRUIT

The first time you see this, it can be a little bit overwhelming and you wonder where to start. But don't worry about that just yet. We haven't gotten into the actual implementation stuff yet, this is just to give an idea of where foods fall!

The way this is laid out, is on the basis of trying to <u>avoid foods that commonly</u> cause people digestive issues (hence why breads are lower down than you think



they would be, and also why wild and brown rices are lower than white rice despite having a better fibre profile. Enough people report digestive upset eating these foods that it marks them down lower on the "ideal" list). But not only that, it has been organised so that foods that are easily over consumed are lower on the list (again why breads are lower). There are a few things that might surprise you, like why corn is so low down? Well it is low down in the vegetable category because although everyone thinks of it as a vegetable, it is in fact a grain just like wheat or oats. Foods that offer you more nutrient bang for your buck are higher up on the table too. These foods allow you to get more nutrients in on a per calorie basis.

Just to be clear, there isn't a one size fits all style diet. These are merely guidelines, and whenever you make generalised guidelines you lose a lot of nuance. So some of these foods may be ideal for you, but they have been marked lower. Or some of the foods are marked higher, may be wholly inappropriate for you. This is just a very general starting point for nutritional experimentation.

By no means do I expect you to be 100% with your nutrition all the time, and obviously making better choices does take time. To make it a bit easier on everyone, I have some guidelines I use so you don't have to constantly recheck the food guide to see if you are eating the right foods and can more accurately ensure you are getting a variety of nutrients.

Regardless of where you are in your nutrition, following these "rules" to some extent at least, will lead to a higher quality diet.

# Aim for 9-13 Servings of Plant Foods Everyday

I know this number sounds huge. And it is definitely a lot, but working towards this number no matter where you currently are will make a huge difference in overall health. If you currently have zero, make it your goal to have 1! Work your way up from there.

A typical serving is half a cup of cooked vegetables, one cup of raw leafy vegetable, or a medium-sized piece of fruit. Aim for every meal of the day to have about 3-4 servings of plant foods so that eating three meals per day, you would make your serving requirement everyday.

#### Eat the Rainbow of Colours

Most people eat a very bland diet devoid of nutrients, a good guide to better nutrient density is to eat the rainbow (not skittles). Make it your goal to get as many colours into your diet everyday, it both boosts your micro nutrition and the enjoyment of your diet.



## **Vary Your Choices**

There are a huge number of nutrients. If we eat the same foods over and over again, even if they are colourful, we may be missing out on some nutrients still. Vary your diet and try a new food every week to ensure that you are getting different a good spread of nutrients!

### Substitute blander food for more colourful foods

Think of foods that you commonly eat that may not be as nutrient dense and simply replace these with nutrient-dense options. Simple substitution is the easiest way to get more colour in.

Now when I say eat a variety of colours you likely think of maybe three or four different colours you can choose from, but there are actually so many more colour choices you could make to increase the amount of nutrients in your diet.

Here is a list of different colour foods that will help guide you in making more nutritious food choices. There are broadly 6 colour categories, so trying to get something from each category daily will lead to a diverse diet full of actual nutrition.

#### **RED FOODS**

**Apples** Beans (Adzuki, Kidney, Red) **Beets** Bell pepper **Blood** oranges Cranberries Cherries Grapefruit (pink) Goji berries

Grapes Onions **Plums** 

**Pomegranate Potatoes** Radishes Raspberries Strawberries Sweet red peppers Rhubarb

Tomato Watermelon

#### **GREEN FOODS**

Apple Artichoke Asparagus Bamboo sprouts Bean sprouts Bell peppers Broccoli **Brussels** sprouts Cabbage Celery Cucumbers Green peas Greens (e.g. kale, lettuce, spinach)

Olives **Pears** Snow peas Watercress Mangetout

Zucchini / Courgette

#### **ORANGE FOODS**

Apricots Bell pepper Cantaloupe Carrots Mango Nectarine Orange Papaya **Pumpkin Butternut Squash** Sweet potato **Tangerines** 

#### **YELLOW FOODS**

Apple **Pears** Banana Bell peppers Lemon Pineapple **Potatoes** Baby sweetcorn Sweetcorn

#### **BLUE/PURPLE/BLACK FOODS**

**Blueberries** Blackberries Cabbage Carrots Cauliflower

Eggplant Figs Grapes Kale Olives **Plums** Potatoes **Prunes** 

Raisins

#### WHITE/TAN/BROWN FOODS

**Apples** Cauliflower Coconut Dates Garlic Ginger

Legumes (e.g. chickpeas, lentils, hummus)

Mushrooms Onions Sauerkraut **Shallots** 



So that is quite a lot of information to take in! Hopefully it all makes sense and helps with your understanding of nutrition. This is just to get an all round general understanding. From here we will work towards how to implement changes into your diet based on this information and assessing your nutrition tracking (photo food diary and myfitnesspal). If there are any questions or issues at all please ask!!

P.s. <u>here is a video</u> I made about ways to increase your veg intake and some background on why it might be a good idea! It may help with the practical side of things!