

# Macronutrient Breakdown



**What are Macronutrients?**

These are essential foods and nutrients that are required in large amounts by your body to keep functioning properly and maintain our health. The three types of macronutrients are carbohydrates, protein, and fats.

**Is a macronutrient different from a micronutrient?**

Yes. Micronutrients are composed of vitamins and minerals. Daily recommendations for these will allow you to understand how much our bodies may need each day in order to maintain our health and keep us from being malnourished.

**Do I need to count my macronutrients?**

Not necessarily. For anyone who is struggling with consuming the right portion of macro and micronutrients to stay healthy this may be a good way to have a visual report and see what you are consuming day to day. Perhaps you are not getting enough protein or consuming far too many carbohydrates. Tracking your macronutrients can aid those who are trying to improve their diet and nutrition. Athletes in training may also benefit from tracking their macronutrients to make sure they are intaking enough to fuel their bodies during their training periods.

**How many macronutrients do I need per day?**

This will vary person to person but let's discuss how to get this started. First you will need to determine what your overall goals are. Once you have figured that out then you will need to determine what amount of calories you are aiming to consume per day for your current nutritional goals. Are you aiming for maintenance, fat loss, muscle gain..etc. Macronutrients will be determined by grams and/or percentages. For example, if you have an 1,800-calorie diet and you are aiming for muscle growth then you would look for a possible breakdown of your macronutrients to be 20-50% carbohydrates, 30-40% protein and 10-30% fat. As you can see there is a lot of room for variables and adjustments to change your macro requirements.

**Do I have to track my macros forever?**

No. This is meant to get you started in the right direction to achieve your goals or develop better eating habits. Once you know what you need to be eating then you may be able to stop tracking your macros and food.



## Macronutrients by Type

### Carbohydrates

There are so many discussions about carbohydrates in regard to the pros, cons, types and the amount you should consume. The main point to remember is that we all need carbohydrates in our body to survive.

Mayo Clinic has a great explanation about how our body uses carbohydrates.

*“Carbohydrates are the body's main fuel source. During digestion, sugars and starches are broken down into simple sugars. They're then absorbed into the bloodstream, where they're known as blood sugar (blood glucose).*

*From there, glucose enters the body's cells with the help of insulin. Glucose is used by the body for energy. Glucose fuels your activities — whether it's going for a jog or simply breathing and thinking. Extra glucose is stored in the liver, muscles and other cells for later use. Or extra glucose is converted to fat.”*

[Link to Mayo Clinic Article](#)

You can see that carbohydrates are an important item that must be eaten to survive. The amount you eat, and the types are what we will discuss next.

### Types of Carbohydrates

There are 3 main types of carbohydrates.

- Sugar
- Starch
- Fiber





***Sugar*** is a type of simple carbohydrate that your body tends to break down quickly. Breaking down quickly doesn't exactly equate to a positive for our bodies and instead it relates to the fact that you can have your blood sugar levels rise and fall quickly. There are naturally occurring sugars such as what milk and fresh fruit contain and then there is another type which is added sugars. Added sugars for example are like those in a can of fruit where not only do they have natural sugars but then add more sugar to sweeten it. Other examples of added sugar are what you find in your juices and sodas. The American Heart Association suggests that on average, most American adults consume 3 times more sugar than they need per day. It's suggested that you try to limit yourself to healthy servings of items containing naturally occurring sugars and limit others you consume with too much added sugar.

***Starch*** is a type of complex carbohydrate that your body takes longer to break down resulting in more stable blood sugar levels and you will tend to feel fuller longer with the right complex carbohydrates. This may sound like you should eat more starches but there are a few that are suggested you try to avoid in large amounts: refined flour products like crackers, pasta and bread, most sugar loaded cereal brands and white rice. Unfortunately, these offer less nutritional value and more sugar, which will also in the end make you want to overeat as you will not feel full from these items.

***Fiber*** is a type of complex carbohydrate which the body isn't able to breakdown. Fiber passes through the body undigested and in this manner can help control blood sugar levels, aid in regular bowel movements, lower cholesterol levels and helps you feel fuller longer after a meal. There are 2 types of fiber, soluble and insoluble. Soluble fiber can dissolve in water to form a viscous, gel material. Foods that are considered soluble fiber can be oats, peas, beans, apples, carrots, barley and psyllium. Insoluble fiber aids with bulk movement through your digestive system. These foods can be wheat bran, nuts, cauliflower and potatoes. As fiber doesn't break down like sugar and starch items you will need to make sure you are also consuming plenty of water to avoid issues like constipation and GI discomfort from the extra fiber in your diet.



## ***Proteins***

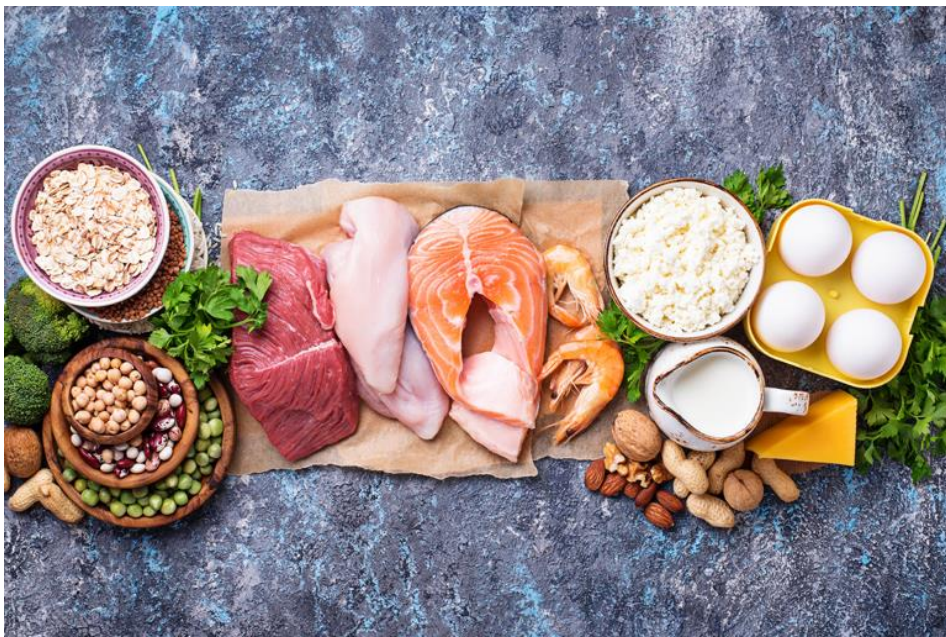
Protein is a key part of any diet and required by our whole body around the clock. Protein is needed for growth, maintenance and repair of your tissues among many other uses in the body. Not only do we use proteins to build muscle but also for forming blood cells and even making antibodies to fight infections.

*“Protein is an essential macronutrient, but not all food sources of protein are created equal”*

[Harvard – School of Public Health](#)

Since not all protein is created equally and some is healthier for the body than others, which type you eat is a personal preference and related to your health goals. There are sources of animal protein that include poultry, seafood, egg, dairy and red meat. On the other hand, there are plant based proteins such as legumes, nuts, whole grains and vegetables. The healthier suggestion is to focus on lower fat, lean protein, while including a broad range of plant-based protein as well.

Along with food-based protein sources there are also protein supplements on the market that you can consume to aid in your protein for the day. There are pros and cons to using a protein supplement, so I encourage you to do your research if you are planning to use those types of supplements.







## **Fats**

Many of you are trying to reduce your fat intake so you are probably wondering why fat is a macronutrient and whether you should be eating it. The answer is yes, it is a macronutrient and an important one. Good sources of dietary fats are important to the body and below will explain that in further detail.

*"Fat helps give your body energy, protects your organs, supports cell growth, keeps cholesterol and blood pressure under control, and helps your body absorb vital nutrients. When you focus too much on cutting out all fat, you can actually deprive your body of what it needs most." [Harvard Health Link](#)*

### **Good vs Bad Fats**

There are 2 main types of dietary fats we can consume. The first is saturated, otherwise known as the bad fat and then there is unsaturated.

Saturated fats are mainly found in animal products like beef and high-fat dairy foods, like butter. High amounts of saturated fats are also commonly found in processed and fast-food items. We are trying to limit the amount of saturated fat since it can produce more LDL (bad) cholesterol, which can form plaque in the arteries and increase your risk of cardiovascular diseases.

The second type of fat is unsaturated fat, which can also be broken down into monounsaturated and polyunsaturated. Monounsaturated fat can be found in avocados and peanut butter or in plant oils such as olive oil. Polyunsaturated fats include omega-3 and omega-6 fatty acids. I'm sure you've heard people telling you to consume more of these good fatty acids. Polyunsaturated fats can be found in various nuts like walnuts, flaxseeds, sunflower seeds, and fish like salmon, mackerel, and tuna.

Studies show that consuming more of these healthier fats is good for the brain and on the other side more saturated fats leads to inflammation in the body. You can offset the damage of the saturated fats by reducing those you consume and replacing them with the healthier monosaturated and polysaturated options.





Now that we have discussed all the different types of macronutrients we will go over how much you should be consuming each day.

## Macronutrient Amounts To Consume

There are so many recommendations about how much you should consume of each macronutrient. Maybe you are assigned an amount by your doctor or dietician. Perhaps you are on a diet or had a personal trainer put you on a strict meal plan to help you cut fat on your body. As there are so many variables, I am simply going to let you know what the government lists as the Recommended Daily Allowance (RDA) for each one. Please note that the RDA is usually on the lower end of what your body may really need or perhaps you are not getting enough, and this information will let you know you need to adjust your intake in those areas.

For more information on the USDA information regarding macronutrients visit this link: [Macronutrients | National Agricultural Library \(usda.gov\)](https://www.usda.gov/national-agricultural-library/macronutrients)

RDA for Carbohydrates (sugar and starch only)	130 grams/day
RDA for Fiber	25-38 grams/day
<p>If we combine the two totals here for our total amount of our carbohydrate macronutrient category then we are looking at an RDA of: 155-168 grams/day. For most people we are eating closer to 220-260 grams each day.</p> <p>This is where things can get confusing and where you have to figure out what is best for you and your goals. The main point here is that you do need carbohydrates so please don't deny your body the minimum amount that it needs. Instead watch how high your intake goes and aim to get most of your carbohydrates from natural sugar sources and complex carbohydrates as we discussed earlier.</p>	





<b>RDA for Dietary Fats</b>	<b>There isn't one listed, instead they recommend 20-35% of your daily energy</b>
<p><b>After reading this RDA above I'm sure you may be a bit confused. The reason that the government does not list a set number of grams per day is due to research results not giving a definitive answer on what amount is safe versus unhealthy based on the type of fat you are consuming.</b></p> <p><b>We learned earlier that dietary fat is a necessary part of our daily nutritional requirements so the best way to maintain a healthy level on a daily basis is to aim for consuming dietary fats from healthier fat sources such as unsaturated dietary fat while increasing the amount of those good fatty acids to your diet.</b></p>	

<b>RDA for Protein</b>	<b>0.8g of good quality protein/kg of bodyweight/day</b>
<p><b>I want to help you understand what they mean by g/kg of bodyweight/day. In order to determine the amount, you need you can convert your bodyweight in pounds to kilogram and then multiply (0.8 gram of protein) x (weight in kilograms) Or you can keep your weight in pounds and then multiply (0.36 grams of protein) x (weight in pounds).</b></p> <p><b>It is recommended in various studies that there are special reasons you may need to consume more protein such as 1.2-1.5g/kg of bodyweight/day. This may be due to more activity, gaining muscle, pregnant, breastfeeding or for people over 65 years of age.</b></p>	

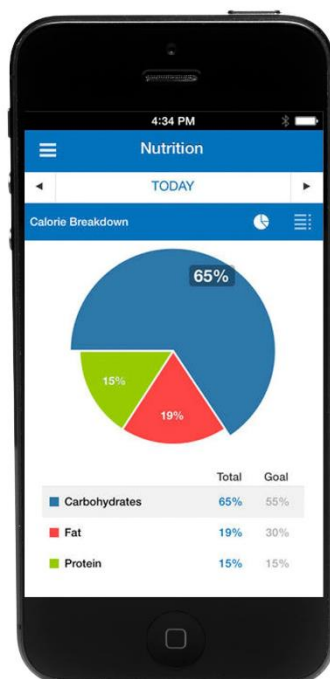


## Tracking Macronutrients

Now that we know what a macronutrient is and how much we are recommended to consume daily the next topic to discuss is tracking macronutrients.

There are many ways to track macronutrients on a daily basis. You can make a note in a food journal or use one of the many apps on your phone or tablet. The different apps that are out there to use include free versions and paid options. These apps can be helpful because they often have information already saved in their system for most foods you will be eating and can break down your percent of macronutrients for the day or per meal.

Do you need to track macronutrients on a daily basis? This answer will depend on your nutritional goals. If you are often overeating unhealthy carbohydrates and not eating enough protein then perhaps tracking your food for a period of time can help you visually see where you need to improve. You should not have to track your foods forever once you start. This should only be done on a temporary basis until you make those adjustments to your daily eating habits, then you can stop tracking your foods.



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