

DENSITY

NUTRITION GUIDE

This guide was designed to simplify the concept of tracking macros and provide you with all the information needed to do so.

MEAL PLAN VS MACROS

Meal Plan: A set list of types/amounts of food you are given to follow that fit your recommended caloric/macro intake.

Pros:

- Time efficient
- Easy to follow
- No room for error

Cons:

- Repetitive
- Limited Flexibility
- Can increase cravings

IFYM (If It Fits Your Macros): a flexible dieting approach that allows you to pick and choose what foods you would like to consume each day while still reaching your given protein, carb, fat, and fiber goals.

Pros:

- Allows for flexibility
- Less restrictive
- Reduces cravings

Cons:

- Time consuming
- Food tracking is required

Macros vs Calories

If you are tracking Macros (macronutrients), you're essentially tracking calories as well. By breaking our calories down into macros (Carbs, Fats, and Protein), we're ensuring that our bodies are receiving the right amount of nutrients from each source to help us reach our goals.

1 gram Protein = 4 calories

1 gram of Carbohydrate = 4 calories

1 gram of Fat = 9 calories

Protein- Used for the growth and maintenance of muscle tissue. Also aids in recovery.

Carbs- Provide our bodies with energy so we can preserve our protein and fat stores.

Fats- Create hormonal balance.

TRACKING MACROS

How to Track Macros Using MyFitnessPal

You may use any tracking app, but MFP is free. (you do not need to upgrade to premium)

Initial Setup:

1. Download the MyFitnessPal App and create an account.
2. The app will provide you with recommended macros based on your current stats and goals, but typically the protein levels given are slightly low. I recommend talking with a coach or nutritionist to get appropriate macro ratios.
3. If you want to use the macros given by the app, move onto the next section below. To change the macros and use ones of your own, follow steps 4-8.
4. Once your account is set up, access the home screen and click on "MORE" located at the bottom right of the page
5. Click "Goals"
6. Click "Calorie, Carb, Protein and Fat Goals"
7. First, change the calories to the ones you are given, then change the percentage of each macro until the number in grams matches the ones you were given. (They may not match perfectly due to using percentages, that is okay, set them as close as possible.)
8. Make sure your information is saved, then go back to your diary to begin tracking.

Using the App:

- Once you're on the "Diary" page, you can begin inputting your food.
- Click the 'add food' button under Breakfast, Lunch, Dinner, or Snacks and begin inputting your meal.
- You can search for the food using the MFP database, enter it manually, or scan the barcode on your item.
- As you're inputting meals, you can click on the section labeled 'Calories Remaining' at the top of the screen to see a breakdown of your macros/micros.

Guidelines when Tracking

When tracking macros, it's important not to focus on overall calories. If you multiply the grams of each macro by it's caloric value, and add them all together, they will equal the overall calories given. Essentially, $\text{Macros} = \text{Calories}$. You will also notice that after reaching your macro goal, you may still be over/under your calorie goal in your tracking app. This is due to rounding errors on nutrition labels. Do not worry, just focus on reaching your protein, carb, fat, and fiber goals.

Anything containing calories should be accounted for including coffee creamer, butter, oil, sauces, seasonings, etc. I personally do not feel the need to track items containing 5 cal/serving or less as long as they're used in moderation.

Tracking Vegetables and Fiber Intake

You may decide whether or not to track your vegetables as long as you are consistent. However, there are a few vegetables I have listed below that will need to be accounted for due to their higher caloric value. I recommend consuming 3 cups, or 300g per day in order to help with digestion/fiber intake. Vegetables can also be used as a filler food to decrease hunger levels when dieting. If you cook your vegetables with oils, butter, or sauces, be sure they're accounted for. I recommend steaming, sauteing, or baking your vegetables using spray oil.

Vegetables that should be accounted for due to higher caloric value:

- Tomatoes
- Mushrooms
- Carrots
- Spaghetti squash
- Corn
- Edamame
- Peas

Fiber is used for digestion and also helps to reduce hunger levels when dieting. Your fiber goal should be met with both vegetables and whole food sources. I will list some examples of high fiber foods below.

High Fiber Foods:

- Oatmeal
- Whole grain breads/pastas
- Potatoes w/ skin
- Flaxseed
- Granola
- Avocados

FOOD SOURCES

I want to make it clear that there are no "good" or "bad" foods. Some foods are just more nutrient dense than others. For example, a medium avocado has the same fat content as a medium sized order of waffle fries from Chick-fil-A, but the fats in the avocado are beneficial to cardiovascular health and help lower cholesterol levels, whereas the fats from the fries have an opposite effect due to the high amount of trans fat they contain.

You can lose weight on any diet as long as your caloric intake is less than your caloric output. However, by eating higher calorie, less nutrient dense foods, your overall volume of food will decrease. For example, you can have a cheeseburger, fries, and a milkshake for 1,900 calories, or you can have oatmeal, eggs, a protein shake, 2 servings of chicken and rice, greek yogurt

with granola, and a small bowl of fruit for the same calorie count. Obviously the second choice is going to keep you much fuller throughout the day and allow you to hit your macro goals. Again, you can lose overall weight on both diets, but your body composition will be skewed due to the lack of protein and micronutrients in option one. Not to mention the negative effects it would have on your cardiovascular health.

Recommended Food Sources:

Proteins

- Non-fat greek yogurt
- Chicken
- Lean ground beef/turkey
- Shrimp/white fish
- Egg whites
- Protein bars (Pure Protein bars have the best calorie/protein ratio)
- Protein Powder
- Cottage cheese

Fats

- Avocados
- Almond/Peanut butter
- Whole eggs
- Nuts
- Oils
- Flaxseed

Carbs

- Brown/white rice
- Sweet/white potatoes
- Pasta
- Oats
- Breads
- Cream of wheat
- Granola
- English muffins
- Fruits (bananas are very high carb)

“White vs Brown” Which is better?

White foods are commonly known to be “unhealthy” and tend to be one of the main components people cut out of their diet when trying to lose weight. Although most white foods contain less micronutrients and have a higher glycemic index than brown, it does not mean they should be ruled out. One of the main reasons people choose whole grain/whole wheat foods is because

they tend to keep you fuller longer. White foods are usually simple carbohydrates and are digested at a much faster rate than brown. I will go over some of the main differences between brown and white rice and bread, as well as the benefits of each.

The difference between brown and white rice is that brown rice is a whole grain, as it contains the bran and germ, while white rice has had the bran and germ removed from the grain. The bran and the germ contain most of the essential nutrients in the grain, so technically brown rice contains more fiber and nutrition than its counterpart white rice.

However, the bran and germ also contain many anti-nutrients, such as phytic acid, which make it harder for your body to break down and absorb the nutrients. These anti-nutrients are a natural part of the grain, as they protect the vital reproductive tools of the grain, but they can cause digestive distress for many people, so white rice is still a great option.

Additionally, what differentiates a healthy bread from an unhealthy bread is not its color, but rather the way it was made and what it was made from. The quality of a bread is determined by the format of the grains, type of flour used and the way the bread was baked. Even brown bread can be made from refined flour and loaded with additives and preservatives, making it a less than ideal option. When choosing bread, it is best to pick a loaf with minimal ingredients, and one that has been properly prepared such as a sourdough or sprouted grain bread.

All this being said, white food is not to be looked at as “bad” food, just less nutrient dense. Either way, if your overall caloric intake is less than your output, you will lose weight. Now I do recommend sticking with whole grains/whole wheat products if you’re on a low calorie diet, have high blood sugar, or tend to overeat when allowing refined carbohydrates into your diet.

WEIGHING/MEASURING FOOD

You will need to buy a food scale that measures in both ounces and grams. You can find these at your local grocery store for about \$20-30. Using measuring cups for solid foods is inaccurate and takes a lot more work than needed, so I prefer to use a scale when measuring anything other than liquids.

Any food you purchase from the grocery store will have a nutrition label on it, excluding most produce. Solid foods will be listed in either grams or ounces, and some will list both. Liquids are typically labeled in ml or tbsps. If your item does not have a nutrition label, you can look it up in your tracking app and find the appropriate macros there.

Nutrition labels are typically based on uncooked foods, but raw and cooked options are usually available in the MFP database. Be sure you’re weighing using the same method you’re tracking.

TRACKING TIPS

1. Because most food is listed in oz or grams, I recommend inputting them in this way rather than going by full servings. What I mean by this is every time you want to log a food item, scan or search the item, then change the serving size to 1 oz or gram. Typically meat is weighed in ounces, and everything else in grams. After you've set the serving size to 1, weigh out your serving and input the amount into the number of servings section.

Example: If I want to weigh my oats, I can see that one serving ($\frac{1}{2}$ cup) is equal to 40g, however, I want 50g. Instead of trying to figure out how many servings 50g is, I can just change the serving size in my app to 1g and the number of servings to 50g, then weigh out 50g on the scale.

2. When weighing out food items that are in a jar or other container such as peanut butter, it's easiest to set the whole jar on the scale, zero it out, and then remove the amount you want. The scale will give you a measurement as a negative number. This is much easier and more accurate than using a measuring spoon.

You can also use this method when measuring egg whites from a carton. Egg whites are listed in both tbsps and grams, so the easiest way to measure is to set the scale to grams, place the carton on the scale, zero it out, pour your desired amount into your cooking pan, and place the carton back on the scale to see how much was poured. Be careful not to go over because you can not pour them back into the carton.

3. Some foods, such as pasta and rice, are measured "dry" on the nutrition label. There are a few ways to go about measuring these items, one being that you can find the cooked version of your food in your tracking app's database. For example, my tracking app has "cooked jasmine rice" already inputted, so I use that rather than converting the measurements myself. It's best to cook 1 serving at first, weigh it out, and then create your own food using the cooked version. Another thing you can do is weigh out multiple servings dry, cook them all together, weigh the amount after cooking, and then divide by the number of servings that were used to determine the weight of one. This may seem overwhelming at first, but over time you will get better and more comfortable with it.
4. Another issue many people run into are recipes, or tracking food that is combined such as casseroles, medleys, pasta dishes, etc. Your tracking app actually gives you the option to create a recipe, or food item if it's not found in the database. For things like spaghetti, I cook my meat, pasta, and sauce separately, then place my bowl on the scale and weigh each ingredient as I combine them. For dishes that require a combination of ingredients before cooking, I will create a recipe using the feature in my tracking app.

For example, let's say you want to bake some banana bread and your ingredients are bananas, pecans, flour, butter, 2 eggs, brown sugar, vanilla extract and baking powder. We're only going to worry about the ingredients that contain calories (everything except vanilla extract and baking powder). When you begin to create your recipe in the app, you will input each ingredient and the amount added. After all the ingredients are inputted, the app will combine all the macros and give you a total macronutrient count for the recipe. Now, when determining macros per serving and serving size, you can go about this one of two ways. If the dish is something that can be cut into individual pieces, then you can just divide the overall macros in the recipe by the number of pieces you create. So if I have brownies that I cut into 12 pieces, my serving size would be 12 pieces (which would equal the amount of the dish as a whole). For the number of servings, I would input how many pieces I ate. You can keep this recipe saved and track it like you would any other food.

If your food cannot be sliced into servings, such as chili and soups, or if you'd rather track it by weight, you will need to weigh the dish as a whole. This must be done after the dish is cooked due to water fluctuations during the cooking process. Once you get the weight of the whole dish, input that number as the serving size for the entire recipe. Weigh out your portion using the same measurement and input that number into the number of servings. For example, if my casserole as a whole is 64oz, and I weigh out 5oz for myself, then my serving size is 64oz for the recipe and my number of servings is 5oz when I input it into my daily planner. This is not 100% accurate because you're assuming you're getting the same amount of each ingredient per serving, but it is close enough.

5. Meats can be weighed after cooking, but again, be sure to input the 'cooked' version in your app. I will list some of the easiest, quickest methods I use when meal prepping my meats.

Chicken- I like to buy a pack of full sized chicken breasts and cook them all at once in the oven. First, grab a baking sheet and cover it with aluminum foil. Coat the foil using a spray oil, and lay out your chicken breasts on the pan. Season them with any dry rub of your choice (I prefer McCormick). Spray another layer of oil over the seasoned chicken breasts and place them in the oven. Cook for 20-25 minutes, or until no pink is left inside, at 425 degrees. Once they're done, you can toss them in a tupperware and you're ready to go for the week. You've now cooked your chicken in a total of 25 minutes with no cleanup because your pan was protected with foil.

Ground beef/turkey- Cooking these in bulk is simple. Place the whole package of meat into a sauce pan sprayed with a light coat of oil. Place the lid on the pan, and let the meat cook on med-high heat while stirring often. I personally do not season my meat until it's mixed in with the rest of my food, but feel free to season yours while cooking.

6. When going out to eat, be sure to check the app's database for your food item. There are hundreds of thousands of foods to choose from, including many restaurant items. Places such as Starbucks and Chipotle have tools on their website that allow you to

customize your order and will calculate the macros for you. Most restaurants have the calories listed by the food item on the menu. Even if you're unable to find the macro breakdown, you can at least allocate enough calories during the day to fit in the dish. I would recommend planning ahead of time by looking the menu up online. If you know you're not going to be eating clean, try hitting your protein throughout the day and leaving a majority of your carbs/fats for later.

7. When cooking with butter and oils, you must be sure to include them in your macro intake. I always recommend cooking with spray oil as much as possible. It allows you to easily coat your food using a thin layer. You do not need to track sprays, just be sure to use them in moderation.

OTHER USEFUL TIPS

- Use protein powder to help reach your daily protein intake. Whey protein powder is recommended because it's a fast releasing protein and can be most beneficial when taken before or after a workout to aid with muscle recovery.
- Plan out and log your food the night before. This will save you time and allow you to properly plan out your day without feeling overwhelmed. Having predetermined meals will also help prevent unintentional binging.
- When going to a restaurant, ask the server to use light/no oils and butter. This can easily save you a few hundred calories.
- Most restaurants have sugar free alternatives you can use to save on calories, you just have to ask. I typically bring sugar free syrup when I go out for breakfast and I always ask for sugar free syrups/sweeteners when grabbing a coffee.
- There are sugar free versions of just about everything. I will provide a list of some of my favorite low calorie sauces, snacks, and other alternatives below.

Disclaimer: Majority of these items do contain artificial sweeteners.

Low Calorie Sauces

- G Hughes Sauces
- Sugar Free Syrup
- No Fat Ranch
- Walden Farms Sauces
- Mustard

Low Calorie Snacks

- Cucumbers
- Snack Size Popcorn
- Halo Top Ice Cream
- Sugar Free/Fat Free Jello Pudding
- Quaker Rice Puffs
- 70 Cal Fiber One Brownies

Other Low Calorie Alternatives:

- 'Sweet Drops' in replace of coffee creamer (you can find these in the baking aisle)
- No fat mozzarella cheese (high in protein)
- PB2 in replace of peanut butter (found in nutrition aisle)
- Carb sense tortillas (only 45 cals and high in fiber)
- Gadoraze Zero

FAQ'S

Do I need to log my exercise in MFP?

NO. Your coach should have already accounted for this in your given macros/meal plan. Your food tracking app should strictly be used as a place to log your meals.

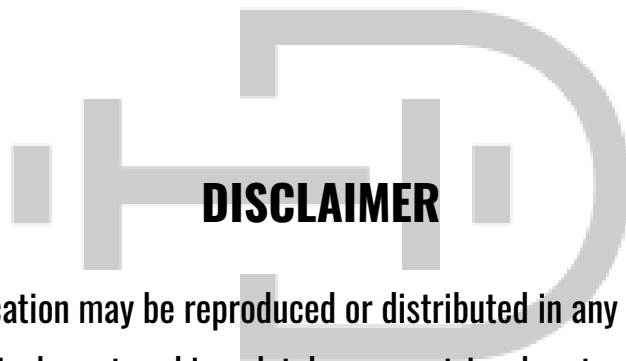
What is the best protein powder to use?

I prefer whey protein over any other because it's rich in essential amino acids and is highly digestible. If you're lactose intolerant, I recommend getting hydrolyzed whey because it's lactose free. If dairy doesn't bother you, whey concentrate and isolate are great options. Casein protein is also another option if you're wanting something that keeps you fuller for a longer period of time. Similar to whey protein, casein is also derived from cow's milk and contains all the essential amino acids needed for protein synthesis. However, it's a slow releasing protein and takes longer for your body to digest due to the formation of small, insoluble balls after reaching the stomach. Your digestive enzymes have to work harder in order to break these up, hence the slow release. Casein is often taken before bed to aid in muscle recovery throughout the night. They're both excellent sources of protein and will promote building lean muscle mass.

If you're vegan and would like to use a plant based protein, you want to be sure you're using the right combination of sources to obtain all essential amino acids. One of the problems with vegan sources of protein is that they contain lower levels of leucine (an essential amino acid used in protein synthesis) and tend to be less digestible, meaning you need more of them to ensure you're getting an adequate amount. Potato protein isolate has been shown to have one of the highest concentrations of essential amino acids and is highly digestible when compared to other plant sources. However, it's low in the amino acid threonine, but by combining it with another protein source with higher levels of threonine, such as corn protein isolate, you'll be good to go. Some vegan proteins use multiple sources in order to increase the overall amount of essential

amino acids, you'll just need to be sure to find the right mix. Although some sources do contain all 9 essential amino acids, there's a much lower concentration when compared to animal based sources.

Food is fuel. View it as such.



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