

Sports Nutrition & Dieting 101

Without proper fuel, the body can't grow muscle or shed fat. We need the right balance of macro and micronutrients, in addition to quality foods for optimal growth. This guide is written from years of personal reading and studies, and it highlights the most important fundamentals of sports nutrition, especially for military athletes. This guide includes information from a variety of sources which are not my own. The intent is to focus more on the "How" than the "Why"; you can research more for the why on your own, if desired.

Basal Metabolic Rate (BMR) and Metabolic Basics

BMR and the science behind metabolism can seem extremely complicated and intimidating. They're not; once you learn the basics, you'll have what you need to program your own diet.

BMR. Imagine you are locked in a capsule for 24 hours. You can't move, but your body is working to keep you alive. The total amount of calories you need to survive and run bodily functions is called Basal Metabolic Rate, or BMR. You can estimate yours at: <https://www.calculator.net/bmr-calculator.html>. You can also have this specifically calculated for you at an Army Wellness Center lab.

Who cares? Well, if you add your BMR to the calories you burn throughout your day from exercise and activity, you've just found out how many calories you need to eat to maintain your weight. SO:

BMR + Calories burned in activity, exercise = Total Daily Caloric Expenditure

Now, if you know the total calories you burn in a day, you can mathematically calculate how many calories to add or subtract to gain or lose specific body weight.

- +500 calories per day for a week = +1 lb body weight (surplus)
- -500 calories per day for a week = -1 lb body weight (loss)
- +/- 0 calories per day = 0 weight change

That's it, you know how to gain or lose weight using mathematically and scientifically proven methodology. Now, we need to discuss the kinds of calories you're eating to make this happen (macronutrients).

Macronutrients

Macronutrients, or “Macros”, are simply the primary categories of nutrients our body needs to function. Proteins, fats, and carbohydrates fuel the body and allow all our functions to run. While a calorie is a calorie, a gram is not a gram. More specifically, proteins, fats, and carbs have different caloric values per gram.

- Protein: 1 gram is 4 calories
- Carbohydrate: 1 gram is 4 calories
- Fat: 1 gram is 9 calories

So what? To properly grow as an athlete, optimizing fitness, health, and aesthetics (if that's part of your objectives), we must have a proper ratio of proteins, carbs, and fats. This is an incredibly complex discussion with thousands of studies, scholarly journal articles, etc. Allow me to simplify this for the military athlete. Generally speaking: you need high intake of lean protein sources, moderate intake of complex carbohydrates, and moderate intake of healthy fats. If you eat along these guidelines, you can generally expect to promote moderate muscle mass and minimize fatty tissue (assuming your workout programming is adequate).

1. Protein. This is the building block of muscle growth and repair. You need to eat high volumes of lean protein, as a military athlete. The best recommendation for healthy consumption is to balance intake of lean protein sources between poultry, fish, and red meat. Chicken, lean ground turkey, salmon, steak (lean cuts), lean ground beef, are all examples of what I consume. **Military athletes need about 1 gram per pound of body weight, and as much as 1.5 or even 2 grams per pound of body weight for aggressive muscular gain and hard 2x day workout programs.**
2. Carbohydrates. Carbs essentially give the body energy to complete tasks and train. There are generally two groups: complex carbs and simple carbs. You want to consume primarily complex carbs like brown rice, quinoa, etc. For more about carbohydrates, carb cycling diet, and Glycemic Index (GI), read the separate article on the page you found this article. I personally use carb cycling diets year-round. As a rule, only eat simple carbs immediately post-workout. Eat foods that are high in fiber when possible. Subtract grams of fiber from the total grams of carbohydrates to calculate

net carbs. **Military athletes need about 2 grams per pound of body weight, and as much as 2.5 - 3 grams per pound of body weight for aggressive weight gain and hard 2x day workout programs.**

3. Fats. Fats are bad right? Wrong. Healthy fats are good; in fact, they're critical for bodily functions. Just like carbs, there are good fats and bad fats. Shoot for the poly and monounsaturated fats that you'll find in fish, almonds, etc. **Military athletes need about .5 – 1 gram per pound of body weight (25%-30% of total caloric intake).**

Now that you understand caloric planning and macronutrients, you can plan your own diet. There are different diets and tricks you can use, carb cycling for example, that will give you more benefit if you choose to use those.

Water

Drink it. Everyone laughs at the guy carrying a gallon water jug, but chances are he's more fit, leaner, and better hydrated. This has huge benefits for any athlete. **Military athletes need at least 8 x 8 oz glasses of water, but should drink an entire gallon daily.**

Daily Habits & Tips to Optimize Dietary Habits

- Start your day with a 8-12oz of water when you wake up
- If you have a busy schedule, meal prep on off days or easier days
- Don't keep unhealthy snacks in the pantry or fridge; stick to your diet
- Work hard on restrictive days and enjoy a great cheat meal or cheat day once a week (don't go crazy)
- Eat a meal 1.5-2 hours before you work out, especially for resistance training and/or drink 20-30 grams of whey protein before the work out. Complex carbs are good before workouts
- Eat simple carbs like dextrose immediately after a workout, as well as 20-30 grams of whey protein (or a blend with whey in it)
- Creatine is good 30 minutes before and after workouts, if you decide to supplement with it
- Try to eat 5-6 meals per day, to achieve your caloric and macro goals

- Eat casein protein before bed (protein powder, cottage cheese, Greek yogurt, milk etc.)
- Fill a plate with a couple cups of green, leafy veggies (spinach, mixed greens, broccoli, asparagus, etc.) and lean protein sources before you add carbs
- Have a healthy craving snack for when you want sweets, carbs, etc. There are many products structure for high protein/low carb and low sugar macros that taste like cheat foods
- If not already, sign up for Sam's Club or Costco and buy in bulk. Buying everything from chicken, salmon, lean beef, to healthy snacks is so much cheaper. I save about 30-45% on groceries
- Try and make habits for cooking the same meals with regards to macros. It's easier to buy, prep, and cook
- Rotate your favorite seasonings for proteins so you don't get tired of having the same lean protein all the time