

Nutrition For Athletes



Athletes, bodybuilders, and trainers will tell you that to achieve results in strength gain and muscle mass requires a modification of the current USDA nutrition recommendations. Athletes cannot expect to make gains or improve performance without a solid nutrition program. Bottom line, the more serious you are about your nutrition, the more serious your gains will be. Research shows that paying attention to macronutrients (protein, carbohydrates and fat), calories, meal timing and certain supplements will have a huge impact on your results.

Below are 8 basic nutrition and supplement rules that every beginning athlete involved with intense resistance training should learn and maintain indefinitely.

Rule #1: Focus on Protein

Consume at least 1 gram of protein per pound of bodyweight on a daily basis. Protein provides the amino acids that are used as the building blocks of muscle protein. Although the recommended daily allowance for protein is set at less than half a gram per pound of bodyweight for the typical person, research shows that athletes, especially those concerned with muscle mass and strength, need roughly double that amount. Beginners should actually try to get in about 1.5 grams of protein per pound of bodyweight per day for the first six months of working out, since this is when your muscles will respond the most rapidly to training. For the 180-pounder, this means 270 grams per day at the outset and a bare minimum of 180 grams daily thereafter.

Your protein choices should come mainly from lean animal proteins such as chicken, turkey, beef, fish, eggs and dairy. These are the most complete protein sources, meaning they provide your body with every essential amino acid, defined as those your body cannot manufacture on its own.

Rule #2: Carb Up

Eat about 2-3 grams of carbohydrates per pound of bodyweight each day. Protein is the most critical macronutrient for muscle growth, with carbohydrates a close second. Carbs are

stored in your muscles as glycogen and both keep your muscles full and large and fuel them during workouts. To gain strength and mass, a 180-pound athlete performing high intensity workouts will need 360-540 grams of carbs daily.

For most meals, stick with slow-digesting carb sources such as whole grains, oatmeal, sweet potatoes, beans, fruit and vegetables. (For all other times of day, see Rule No. 7.)

Rule #3: Don't Avoid Fat

About 20%-30% of your total daily calories should come from fat. And unlike the sedentary general population who are advised to eliminate their saturated fat intake, 5%-10% of your fat calories should be saturated because higher-fat diets (particularly those higher in monounsaturated and saturated fats) appear to maintain testosterone levels better than low-fat diets. Maintaining optimal levels of testosterone, don't forget, is paramount for building muscle mass and strength and for avoiding fat gain.

Choose red meats such as steak and ground beef for your saturated fats (these also provide quality protein); avocados, mixed nuts, olive oil, olives and peanut butter for monounsaturated fats; and fatty fish (salmon, trout, catfish), flaxseed oil and walnuts as good sources of essential, omega-3 polyunsaturated fats.

Rule #4: Calories Count

To build muscle and strength, consume 20 calories per pound of bodyweight per day. You must stay in a positive calorie balance (taking in more calories than you burn) to gain quality mass. If you burn more calories than you consume (a negative balance), your body will go into conservation mode and won't support new muscle growth. That's why a 180-pounder should get roughly 3,600 calories daily. Keeping Rules 1, 2, and 3 in mind, 20%-30% of these calories should come from protein, 40%-60% from carbs and 20%-30% from fat.

Rule #5: Eat Frequently

Eat a meal that contains quality protein and carbs every 2-3 hours to ensure a steady supply of energy and amino acids for muscle growth all day long, helping you gain mass and stay lean. The key is to keep every meal approximately the same size. If you pig out with a 1,200-calorie lunch, you'll be less likely to eat 2-3 hours later and liable to gain the wrong kind of weight, since calories in excess of what the body can process at a given time are often stored as bodyfat. Aim for at least six meals per day and shoot for eight, which for the 180-pound guy would consist of 500-600 calories per meal.

Rule #6 Shake It Up

Pre- and postworkout, get in at least 20 grams of protein in convenient shake form. Protein shakes are considered supplements, but we like to think of them as important meals to be consumed at critical times during the day. While your diet should consist mostly of unprocessed whole foods, at times a protein shake is a much better option. An example is 30 minutes immediately before your workout. To prepare your muscles for the ensuing training session, as well as to get a head start on the muscle recovery process, drink a shake with 20 grams of either whey protein or a mix of whey and casein along with 40

grams or so of a slower-digesting carbohydrate (see Rule No. 7). Then, in the 60-minute window immediately postworkout, down another 20-40 grams of liquid protein (mix in water for convenience) and 60-100 grams of faster-digesting carbs (again, see Rule No. 7).

Rule #7: Eat the Right Carbs at the Right Time

Eat a slow carb 30 minutes preworkout and mainly fast carbs postworkout. As stated in Rule No. 2, you should select slower-burning carbs for most meals, including before you train. Research shows that when athletes eat slower-digesting carbs, they not only have more energy and less fatigue during exercise but they burn more fat while training and experience less hunger throughout the day. Good slow-carb choices include fruit, whole-grain bread and oatmeal.

Postworkout, choose fast-digesting carbs such as white bread, a plain bagel or baked potato or a sports drink (Gatorade, Powerade, etc.). This will spike levels of the anabolic hormone insulin, which drives the carbs you eat into muscle cells, where they'll be stored as glycogen to be used for your next workout. Insulin also helps amino acids get into the muscle cells to build muscle protein. It's critical to delivering creatine to the muscles (see Rule No. 9) and increases muscle protein synthesis, one of the major processes by which muscle fibers grow. Normally, you want to keep insulin levels in check for a variety of health reasons, but immediately following a hard training session is one time when an insulin spike is desirable.

Rule #8: Eat Before Bedtime

Before going to bed every night, consume 30-40 grams of a micellar casein protein shake or 1 cup of low-fat cottage cheese, as well as 2-3 tablespoons of flaxseed oil, 2 ounces of mixed nuts or 2-3 tablespoons of peanut butter. When you sleep, you essentially fast for 7-9 hours (or for however long you sleep). With no food available, the body goes to your muscle fibers for amino acids to fuel your brain. For the individual looking to get bigger and leaner, this is not a good thing. The answer isn't to get less sleep but rather to eat the proper foods immediately before bedtime. Slow-digesting proteins and healthy fats are your best bet. These foods help slow digestion and provide a steady supply of amino acids for fuel, thereby minimizing the body's tendency to use muscle. Casein, the major protein in milk, is a good option - either from a protein shake or 1 cup of low-fat cottage cheese.

SAMPLE DAY MEAL PLAN FOR ATHLETE APX 180lb

Now that you know the 10 golden rules of nutrition and supplementation for the beginner, here's what an ideal day of eating might look like for the 180-pounder.

7:30 a.m. Breakfast

4 large whole eggs

1 cup plain cooked oatmeal

Large sliced banana

10 a.m. Midmorning Snack

2 slices whole-wheat bread

3-4 slices deli-style turkey breast

2 slices low-fat cheese
Mustard, lettuce
Choice of fruit

1 p.m. Lunch
6 oz. lean ground beef
2 cups pasta
1 cup broccoli

3 p.m. Midday snack
1/2 can albacore tuna
2 slices whole-wheat bread
1/2 avocado

5 p.m. Preworkout
20 g protein shake (whey or whey/casein blend) with 3-5 g creatine
2 slices whole-wheat bread
3-5 g creatine

6:30 p.m. Postworkout
20-40 g protein shake (whey or whey/casein blend) with 3-5 g creatine
32 oz. Gatorade
3-5 g creatine

7:30 p.m. Dinner
8 oz. chicken breast or steak
Large sweet potato
1 cup broccoli or asparagus

10:30 p.m. Bedtime
1 cup low-fat cottage cheese
2-3 Tbsp. peanut butter