

SPORTS NUTRITION 101

You have come to this section because you are interested in using nutrition to improve your performance. This section of the site will continue to build, but below you will find the foundation. Consider this your nutrition 101!

The athlete often times will literally run themselves into the ground. Some athletes may see food as the enemy, the potential to add pounds onto the frame and seconds onto your time. Other athletes may have the exact opposite opinion, they need to enormous amounts of food to maintain their large size. Athletes may also see food/nutrition as having nothing to do with their training or their performance. The truth is, food/nutrition should become your training partner because proper nutrition not only fuels your body for each and every training session, but also ensures proper recovery. Fueling your body optimally will increase your energy levels, enhance the quality of your training, help you to maximize each of your training days, improve your hormone profile, decrease inflammation, and decrease your chance of overuse injury. You must begin to view nutrition as your training partner, your essential tool to optimizing your health, your training, and your performance.

We spend so much time strengthening, stretching, and training to achieve a body that is in balance. But, what does a body in balance look like on the inside? There are many amazing athletes that on the outside look like they have the ultimate body in balance. They train hard day in and day out, they are lean and they are competitive. However, with one look inside, you may find that this picture of perfection is actually on the brink of a complete meltdown. By not fueling the body properly, the environment created on the inside is one of chaos. By not giving the body the fuel it, it becomes catabolic or in breakdown mode.

When the body becomes catabolic it begins mobilizing fuel from inefficient sources like muscle. When the body is not fueled properly it is also in a constant state of stress. Your Cortisol:Testosterone ratio is out of wack as a result of increased Cortisol (nasty stress hormone) and decreased Testosterone (building hormone). The microscopic damage to the muscle never really gets a chance to fully heal. Your resting heart rate may increase and you may have decreased endurance and power. This unbalanced state sets the body up for a greater risk for sickness, fatigue, depression, inflammation, injury, loss of competitive drive, and ultimately underperformance.

Proper nutrition is one of the tools that can be used to put the body back into balance after training and prevent the chaos that can occur with prolonged insufficient nutritional habits. Ensuring you are getting enough calories and all of your nutrients each day will allow the body to run efficiently and energy stores to be full. Engaging in a pre- and/or post-workout nutrition routine after each workout will help to restore your body's hormone profiles to normal, refuel your body, and jumpstart the recovery and repair of the body. Proper nutrition day in and day is one way to prevent the body from slipping into a spiral of overtraining and injury risk. Proper nutrition is one way that you can control to enhance your health and performance. Below you will find some simple rules to live by to ensure you are on the road to optimal nutrition, optimal health, and optimal performance.

Carbohydrate

Your primary source of fuel is carbohydrate, period. Carbohydrate allows the body to run efficiently and effectively. Not enough carbohydrate in the diet = decrease in performance. It is amazing how many athletes do not consume enough carbohydrates. As soon as they start to reshape their diet and add the grains back, they see a spike in energy and performance. I am not saying to run out and stock up on only carbohydrate rich foods.

What I am saying is that most of your calories should come from carbohydrates. You need to fuel your body based on the size of your gas tank. Meaning, the more you train and the bigger you are, the larger your fuel needs and the more carbohydrate you need in your diet. If you are training less and are smaller, you simply do not need as much. So, as your training increases and decreases over the course of a year, so should your carbohydrate intake. Now, how much carbohydrate do you really need? The best way to figure out how much you need is to determine the actual amount of grams rather than a percent of total calories because so many athletes have restricted their overall energy intake. The general recommendations for athletes is 2-5 grams (g) of carbohydrate per pound of body weight per day. Consistently eating the recommended amount of carbohydrate each day will ensure you have optimal fuel stores for your training and fill one piece of the puzzle to the body in balance.

Glycemic Index

“Good Carb, Bad Carb: Are all carbs created equal? What carbs do I choose?”

When choosing your carbohydrates, remember that all carbs are not created equal. There are carbohydrates that you want to choose most of the time and then there are carbs that you want to every once in a while or at very specific times. A general tool used to evaluate types of carbohydrates is called the glycemic index. The glycemic index simply ranks carbohydrates in relation to how quickly they are broken down into glucose (fuel). Those that are high on the glycemic index are broken down very quickly and available for use very quickly. Carbohydrates that are high on the glycemic index tend to be more processed. White bread, white rice, processed grains, and sports drinks are a few examples of foods that tend to fall on the higher end of the glycemic index. High glycemic index carbs are important during and after training to speed up recovery, but can cause highs and lows of energy if eaten on a consistent basis. Carbohydrates that are moderate and low on the glycemic index are broken down

slower and tend to keep energy levels more stable. The types of carbohydrates that fall on the lower end of the glycemic index tend to be less processed and higher in fiber. I have a saying "Come Back to Earth" when it comes to choosing carbs. This means choose the least processed form of carbohydrate (whole grains, beans, 100% whole wheat breads, fruits, and vegetables) most of the time. These carbohydrates will help to feel energized all day.

Protein

Meeting your protein needs is another important factor in maintaining health and performance. Some athletes do not get enough protein because they are focusing too much on carbs and some get too much protein because they are succumbing to society's trend for a high protein diet. On either side of the pendulum, there are health implications. So, let's come back to the middle and find the balance in the diet. Without a doubt those who are training intensely or those who are athletes have a higher protein need than the average person. Endurance athletes that are incorporating strength training into their routines have an even higher protein need. Exercise produces catabolic effects and breaks down our precious lean body mass. By ensuring we have enough protein each day and after our training sessions, we can help to reverse our bodies out of its breakdown mode.

$$\frac{\text{weight (pounds)}}{\text{}} \times 0.6 - 1.0 = \text{grams of Protein needed per day}$$

Proteins of Choice ---- Animal proteins have a higher biological value, which is a fancy way for saying, your body uses them more efficiently. Eggs, low-fat or non-fat milk, and lean meats (fish, chicken, lean pork, and lean red meat) are your best choices. You also get protein from beans, nuts, and natural nut butters. An easy way to increase your protein is to use bars or meal replacements as snacks. Make sure to include a protein source with each meal. Break up how much protein you need each day into all of your meals. A little here. A little there. Before you know it you have reached your protein needs for the day, which will keep you strong, healthy, and speed up recovery.

Fat

Many people become phobic of fat because they believe that the nutrient in general will make you fat. This is just not true. Too much of anything will add additional body fat onto your frame, which reiterates the need for a healthy balance. Fats are a critical component of the diet. They provide fuel, serve as insulation, provide protective padding for organs and structures, supply building blocks for other chemicals, provide essential fatty acids, and serve as components of cell membranes and other cell structures. As with all of the other nutrients, there are fats that are better than others.

Saturated Fat

Saturated fats are found in animal products (certain meats and dairy products), coconut, palm kernel oil, and palm oil. We want to keep our saturated fat intake at 10% or below of our total fat intake. Easy ways to avoid saturated fats are to limit your intake of heavily marbled and fatty red meats, cheese, and whole dairy products. When choosing dairy, just go for 2% or below. The only difference between whole milk products and skim milk products is the saturated fat content. By focusing on low-fat dairy products and lean protein choices, your saturated fat intake will be under control.

Polyunsaturated and Monounsaturated Fat

Replacing saturated fats with unsaturated fats is a great way to lower your total cholesterol and improve your heart health. The omega-6 and omega-3 fatty acid fall under the polyunsaturated category. These two types of fat are essential, meaning that you must get them from the diet. Our bodies can make a number of things, but it cannot make these two fatty acids. Omega-6 fatty acids are found primarily in vegetable oils. The American diet is traditionally higher in Omega-6 fatty acids. Omega-3 fatty acids are found in fattier fish and fish oil (name specific fish) and flax and flaxseed oil. In comparison to the omega 6 fatty acid, the Omega-3 is often times lacking in the American diet. Diets deficient in Omega-3 fatty acid can lead to increased inflammation in the body; therefore, if you are not getting your salmon a few times a week or using flaxseed or flaxseed oil on a regular basis, I suggest you start or you start supplementing. If it's not coming from your diet, your not getting it period. 1T of Flaxseed Oil or Udo's Choice Blend per 50 pounds of body weight per day will help you to meet your needs.

130 pound athlete --- recommend 2.5T of Oil per day. *It's great in a shake, smoothie, juice, or oatmeal.**

Hydration:

Water is so important for almost all of our body's functions. Make sure that you are drinking enough water each day and every day. Proper hydration is a daily thing. I recommend that you drink at least 0.5 - 1 oz per pound/per day. So, if you weight 150 pounds, you should be drinking 75-150 oz of water per day to maintain hydration. There are additional recommendations for exercise and training:

- 16 oz in the 2 hours before training
- 4-6 oz or gulps every 10-15 minutes during training

- 16oz for each pound lost during training (if you weigh before and again after --- for each pound lost drink 16 oz of water)

Sports drinks can be helpful if the exercise is extremely strenuous or longer than 60 minutes. If this is the case, try to get 30-60g of carbohydrate per hour during your intense training or run.

Water is my drink of choice; however, there are others that are great. Green/White tea is packed with anti-oxidants. Brew your own or get one that isn't sweetened. No need to drink extra calories. Juice in moderation is also a great way to get your vitamins and minerals. 8 oz of calcium fortified OJ is a great way to get your vitamin C and some calcium. With juice, just remember that a little goes a long way! 4-8oz is a good amount of juice.

Finally, other types of non-caloric drinks can be used to "mix it up." Propel, crystal lite, etc can be used, but again, water should be your first choice.

Recovery

After a training session you have a two hour window of recovery. You need to get a combination of carbs and protein as quickly as possible after your run or training session. With every passing minute after you finish exercise, you are decreasing your recovery efficiency. I recommend athletes and anyone who is training intensely get their recovery shake, bar or meal within the first 20-30 minutes after they stop training. If you refuel immediately after a session, you will refill your fuel stores in your muscle, repair muscle damage, and bring your hormone profile back to balance. Waiting to refuel means that you will not recover properly! Bottom line, get your recovery started ASAP after a training session. To calculate your specific post workout needs follow the simple equation below.

Grams of protein needed post workout: Your weight in pounds / 2.2 * 0.4

To figure out how many grams of carbohydrate you need post workout, follow the directions below:

Weight loss or very easy sessions: grams of protein * 1

Weight maintenance: grams of protein * 2

Weight gain or very intense training session / run: grams of protein *3

Also, don't forget to consume 16oz of water for each pound that you lost during exercise! By properly refueling and rehydrating, you will be 100% at your next game or training session.

Finally, take a look at the rules to live by below! If you follow these rules on a daily basis, you will enhance your health and enhance your performance! I don't expect perfection every day! Give yourself a little room to enjoy the foods that you love. Eat for your needs and your health most of the time by including whole grains, fruits, veggies, lean proteins, and healthy fats at each of your 6 meals per day, but allow yourself one whole day or one meal every 2 or 3 days to relax and enjoy the foods that you love.