

The Athletic Performance Diet for Endurance Athletes

By

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Interestingly the athletic diet has changed very little over the years. The reason being is that there are not many pathways to fueling the body most efficiently. A diet consisting of 60-65% carbohydrate, 20-25% fats, and 15-20% protein is the proper ratio of macro nutrients for most endurance athletes and has been the mainstay for years. A highly trained endurance athlete would not last very long on a high protein diet, because their glycogen stores would quickly become depleted and they would no longer have the energy reserves to train effectively. There is little controversy in athletic nutrition when compared to the general population. The reason for this is athletic nutrition is based on hard science and fact, rather than sensationalism and circumstantial evidence. Coaches should rely on clinical studies and proven methods rather than the latest hype. Most fad diets have to have a "hook" or gimmick to get people to purchase their plan or products. That is not to say there is not hundreds of performance enhancing athletic supplements, many with dubious value. But the overall big picture on how to fuel an athlete's body really has not changed all that much and is actually quite simple. Sound nutrition is what athletes should focus on, rather than the latest supplement, performance enhancing product, or fad diet plan.

Complex carbohydrates such as starches and fiber should be the cornerstone of an endurance athlete's diet. Complex carbohydrates include breads, pasta, cereals, vegetables, rice and other grains, and potatoes. Athletes should try to choose carbohydrates that are in their "natural" form such as whole grains because they have more fiber and nutrients, and give a slower steady release of energy. Processed carbohydrate foods such as pasta and bagels are great for loading your body with energy before and after competition. Simple sugars are good during a competition and for quick energy replacement afterwards (sports drinks). Athletes should try to avoid fruits before competition. Some fruits can upset the stomach and the type of sugar found in fruits, fructose, can be harder for the body to process during exercise. Carbohydrates are broken down and stored as glycogen; the body's fuel source, or converted to energy to compete and train. When glycogen stores run out an athlete may "bonk" or "hit the wall." An athlete will feel lousy, lethargic, and slow. In this scenario, the body begins breaking down your muscles to use as fuel. Several days of hard training can also deplete glycogen stores. This sluggishness and inability to train hard is often misdiagnosed as overtraining. A good post work out recovery plan is crucial to maintaining glycogen stores for repeated training and competition. A good post work out recovery meal should consist of eating carbohydrates and a little bit of protein (4:1 ratio), immediately after training.

Fat is another fuel source used during training, especially at lower intensities. Fat however can't be broken down very fast. As the intensity of exercise increases carbohydrate becomes the main fuel source, but the total amount of fat burned can remain the same, and the calories burned will be much greater. Do not fall for the fat burning "zone" exercise plan. Fat is not a good source of energy to consume during exercise, but is crucial to processing certain vitamins and performing body functions. The best fats are

mono or poly-unsaturated fats. A good way to identify these types of fats is that they are liquid at room temperature (oils), and / or generally come from plant sources. Avocados and nuts are whole foods with this type of fat. This fat can also be found in canola, olive, and safflower oils. Saturated fats generally come from animal sources and include cheese, lard, butter, meat fats, and cream. The body only needs a small amount of saturated fats. They should only make up about 10% of the diet. These fats are considered "bad" because they raise cholesterol.

Protein is a poor source of energy and requires a lot of work to break down. Protein only supplies about 5% of the energy used during exercise, and up to 10% when glycogen stores are depleted. Protein however is crucial to repair the muscle damage of heavy training. There is evidence that endurance athletes need even more protein than body builders. Endurance athletes should be aware that increased protein intake does not necessarily equal increased muscle mass. Muscle gain comes from adaptation to stress (ex. weights), and proper nutrition. Consuming too much protein can be hard on your kidneys and is unnecessary. The body can only process so much protein at a time; the rest is flushed from your body.

If weight loss is the goal, focus should be placed on energy in and energy out-calories. Do not fall victim to fad diets. Weight loss is really just a numbers game; you have to burn more than you consume to create a deficit. To help maintain his weight Lance Armstrong weighs his pasta. A round number for weight loss is $10 \times \text{weight} + 2 \times \text{weight}$ for men, and $10 \times \text{weight} + \text{weight}$ for women. This is a rough estimate of your resting metabolism or the number of calories your body needs daily to sustain bodily functions. This is less than the number of calories your body burns every day. Couple this deficit with the deficit created by exercise, and weight loss will happen. It is preferable, however, to lose weight by the deficit created from training only. This way you do not have to worry about being depleted for training. Eating smaller meals throughout the day can boost metabolism and keep you from over eating. Try not to go hungry; this leads to binge eating.

The "big picture" is to try to make sure each meal has carbohydrates, fats, and protein in the recommended ratios. Make sure the diet is balanced and consistent. You can do this by quantifying and calculating your food choices, or by simply eyeballing your plate. Eat a variety of complex carbohydrates, low fat proteins, and healthy oils. Stay away from high fat foods, especially saturated fats. It is important to read labels so that you know what you are putting in your body. Think of yourself as a racing car, and use premium gas instead of low octane.