

Training and Performance Nutrition for Endurance Athletes

Jonathan Clinthorne, PhD

As a nutritionist, “what should I be eating?” is a question I get on a weekly basis from folks looking for nutrition advice. Ultimately, I hate trying to meal plan for people as I honestly don’t know what you want to eat. Rather, I think there are some staple foods that all endurance athletes should have in their pantry or fridge, and these should be incorporated into their diet on a daily basis. Below are 5 of my favorite foods that I think all endurance athletes should be eating on a regular basis.

- 1) Sources of Omega 3’s: Stock your pantry or fridge with sardines, tuna, canned or fresh salmon and other seafood. These foods are great sources of the all-important omega-3 fatty acids, which are incredibly important for regulating our inflammatory response, which can help promote recovery and minimize injury risk. The data is pretty clear that most plant sources of omega-3s (flax oil, canola oil, etc.) aren’t as easily used by the body, so I always encourage people to choose the animal sources, but if you’re on a plant based diet, even the plant sources are way better than nothing. You can also try taking an omega-3 supplement, but in general, research around these supplements hasn’t matched the benefits observed in populations who are getting more omega-3s through their diets.
- 2) Protein powder: I recommend that athletes aim for between 1.2-2.0 grams of protein per kilogram of body weight per day. That means that your desired protein intake will vary based on your body size. While meeting these protein goals is helpful for building and maintaining lean mass, its also important to spread this protein intake out throughout the day. In general, the maximum amount of protein that can be utilized by the body for muscle protein synthesis in a single sitting is about 20-30 grams, so spreading this out throughout the day is the optimal way to do it. A protein shake with some veggies and fruit is a great snack.
- 3) Beets: Why have beets become so popular recently? Well turns out, beets, arugula, kale, spinach and some other vegetables contain a nutrient that helps the body produce nitric oxide. Nitric oxide is an athlete’s best friend, helping improve blood flow, and maximizing oxygen utilization. Some studies have even demonstrated that acute intake of beetroot juice can improve exercise performance.
- 4) Electrolyte-containing drinks or drink-mixes: This is one that is really important to athletes, especially for those of us who live in hot humid climates or doing a lot of indoor training. Most of the major sports nutrition brands make a version of this and these are a great drink to sip on post-workout. Rehydrating is key to recovery, and replacing the sodium, potassium, and other electrolytes you lose in your sweat can really facilitate optimal hydration.
- 5) Nut-butters: I’m pretty agnostic when it comes to which nut-butter is best, but in general, adding a little nut butter to your pre-workout snack can help keep you satiated during exercise and keep your stomach happy. Nut-butters are quite calorie dense, so keep an

eye on your serving sizes, or buy nut-butters that come in individual single-serving packages.

About the Author

Jonathan (Jon) Clinthorne is an ultra endurance athlete with a doctorate in Human Nutrition from Michigan State University. Growing up as a competitive swimmer, the idea of training for 2 hours a day when training for ultramarathons did not seem outlandish, so he jumped right in. During college he decided to pursue nutrition as a full-time career, falling in love with the biochemistry of ultra endurance athletics. He has run over 50 ultramarathons, including twelve 100 mile races. Jon has self-experimented with just about every nutrition approach and over the years found what works and doesn't work. He specializes in evidenced based nutrition counseling that is combined with his deep practical knowledge of sport. His philosophy is that there is no "one size fits-all" approach to endurance nutrition and instead prefers to work with his clients to determine which evidence-based approach will fit them best. He serves on the Board of Directors along with being the Course Director for the High Lonesome 100. When not running you can find Jon skiing or hiking in the mountains of Colorado.

Specialties

- Nutrition counseling
- Ultramarathon
- Marathon
- Half Marathon

Education

- BS – Human Biology, Michigan State University
- PhD – Human Nutrition, Michigan State University

Running History & Awards

- Twelve 100 mile finishes
- 50+ ultramarathon finishes
- 35 top-ten finishes
- 3 course records