



Endurance Sports Nutrition Guide

Hello and thank you for choosing Apex Nutrition, LLC to create a meal plan and nutrition education packet for you. This guide will direct you through the other pamphlets. I will try to explain the tools I have provided, how they relate to improved nutrient intake and performance for endurance athletes, and why they are important. This packet can be overwhelming, so take a deep breath and realize that you do not have to master all of this in one day. Start by following the meal plan. By doing this, you will automatically make improvements to your nutrition. Then, read through the other pamphlets (maybe just one per week) to learn why I have suggested the foods on the meal plan and how to have a healthy relationship with food for life. Here goes...

What do you think are the greatest nutrition challenges for endurance athletes?.....

I believe they are 1) adequate (and appropriate) daily calories, and 2) adequate hydration. Along with these challenges, you face nutrition needs directly before, during and after training, and supplement needs - it's a lot to go over! But, one by one, we'll face each challenge and form a plan to meet them.

First, take a thorough look at your "Mix and Match Meal Plan." If you pick one option for each meal and snack, you will eat/drink an appropriate daily amount based on your height and gender. Once you have begun a meal plan, you can further adjust the calorie level for your age, activity level, and weight changes.

Eating small meals and snacks throughout the day can improve your glycogen stores, energy levels, and metabolism. A word of caution: when I suggest a snack, I am suggesting a healthy, intentional, and portioned snack between two meals. This is different than snacking or grazing throughout the day mindlessly without regard to portion. I suggest these snacks because they:

- * help improve metabolism by providing your body with a consistent energy flow
- * decrease the risk of being overly hungry at the next meal and overeating
- * increase the chances of getting all the nutrients you need in a day
- * decrease the amount of calories you eat at one meal and thereby decrease the amount of calories your body will likely store as fat.

The calorie level and pattern of eating on the meal plan, in addition to your training schedule, should allow you work towards and/or maintain a healthy weight. If you are not getting your desired weight results after 2 weeks of consistently following the plan, however, make the adjustments suggested on the bottom of the 1st page of the plan. The meal plan incorporates the nutrition education taught with this packet. If you would like, you can switch the meals around (such as eat your larger dinner meal at noon and a lighter lunch-type meal in the evening). You can also substitute your own meal/snack ideas as long as they have similar calories as the meal or snack on the meal plan and are nutritious (healthy carbs, proteins, and fats - as you'll learn with this packet). The Recipe Collection contains a variety of delicious and easy dinner and

vegetable recipes that compliment the meal plan. Begin following the meal plan as soon as possible.

Next, take a look at the handout "Nutrition for Endurance Athletes - Daily." This sheet covers the challenges of adequate daily calories. Remember, a calorie is a unit of energy. It is neither good nor bad - it is simply needed in an appropriate amount (depending on height, weight, activity level, age, and gender). As you read through this sheet, also note that calories only come from carbohydrates, protein, and fat. Many supplements only contain vitamins and minerals and do not provide calories, and therefore do not provide energy. You must depend on carbohydrates, protein, and fat for your daily energy.

Carbohydrates should be any endurance athlete's food foundation. Every meal and every snack should have a base of carbohydrates. Carbohydrates can be found in grain products, starchy vegetables, fruit, milk, yogurt, and sweets. Secondly, you should include protein at every meal. You have higher protein needs than sedentary people as you are constantly building and rebuilding cells. Protein comes from milk, yogurt, cheese, cottage cheese, eggs, nuts, soy products, beans, and all fish and meats. Thirdly, you need fats - they are essential to your health. Do not overdo them, but also do not be afraid of them. The best fat sources are olive oil, canola oil, peanut oil, nuts, seeds, avocados, flax, and fat from fish. With all carbohydrates, proteins, and fats, choose healthy sources that will benefit your body.

Next, take a look at the "Hydration" handout. It is critical that you realize that dehydration has a direct impact on your performance. This includes dehydration that is cumulative and happens over several days or weeks, AND daily dehydration that can occur with inadequate intake of fluid in one day. As an athlete, you **MUST** make it a priority to be hydrated everyday! Furthermore, as you will read, you will hydrate better if you use a drink with electrolytes when hydrating during training or a competition.

Fourth, take a look at the "Nutrition for Endurance Athletes - Training & Competitions." This sheet covers your needs directly before, during, and after training and competition. I do not differentiate between training and competing because it is important that you train as you want to compete. Also, it is very important that you have a nutrition routine that you've tried and tested during trainings for competitions (you do not want to do something new on competition day). Additionally, you can use the sheet, "Carbohydrate Loading," to optimize your glycogen stores the week of an important competition.

Fifth, take a look at "Supplements for Endurance Athletes." This handout will separate fact from fiction regarding today's popular supplements. As you'll read, some may benefit you, some will neither benefit nor harm you, and others may risk your health. It is important to research any supplement before you begin taking it!

Just to make sure you are consistent in tracking your weight changes, here are some tips for obtaining weight and body fat percentages:

- * weigh at the same time of day, and after the same activities (ie. Don't weigh one time after taking a shower and the next time before taking a shower - it is probably best to simply weight in the morning right after you get out of bed and go to the bathroom).
- * if you weigh daily, expect some fluctuations based on hydration and water retention. It is okay to weigh daily, but only judge progress based on a weekly weight (ie. every Monday).
- * if you get your body fat percentage based on caliper measurements, make sure the measurer is a trained professional and has evaluated numerous clients using calipers. Have the same person perform the measurements each time. Also, the more measurement sites, the more accurate.
- * if you use a scale with a body fat percentage feature, make sure you take your measurement at the same time of day each time and after the same activities (just like weight). These machines calculate a value based on the speed that an electrical signal is run through your body - muscle is mostly made up of water, so it conducts the signal while fat does not contain water and does not conduct the signal. If you are more hydrated for one measurement than another, you will get inaccurate results.

Lastly, I've included a tool to help you organize your eating and training times each day, the "Eating and Activity Chart." This sheet is given to you in *MS Word* format so you can type on it. By first scheduling in your training times, you can easily plan when to eat pre-training meals and recovery meals. Remember, preparation is a key to successful training and sports nutrition!

Thanks again for your purchase. I believe this is a great start and you have the tools to eat and hydrate appropriately! As you go through each aspect, you should be consistently following the meal plan and understand the basics of daily nutrition, hydration, event nutrition, and supplements for endurance athletes in 3-4 weeks. I recommend a commitment to follow the plan for at least 3 months and to consistently track your progress. If you decide that you would benefit from weekly emails from Apex Nutrition for encouragement, accountability, and answers to any questions, please request this service by sending an email to services@apexnutritionllc.com. It costs \$30/month and includes 1 weekly initial email and up to 2 response emails/week. I know you can do it! I hope you believe this, too!

Take care and have a great day!

Kelli Jennings, RD, President
Apex Nutrition, LLC

References: Peak Performance, Hawley, John and Louise Burke, 1998
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Nutrition for Serious Athletes, Benadot, Dan, 2000
Sports Nutrition for Endurance Athletes, Ryan, Monica, 2002