



FUELING GUIDE

For superior performance, it's essential to fuel your body with high-quality nutrients during training, recovery and racing. The First Endurance product line is designed to work together, as a complete endurance system, to maximize endurance and performance. This unparalleled system integrates all of the essential vitamins, minerals, antioxidants, electrolytes, amino acids, herbs, carbohydrates and proteins you need to get the most out of your training so you can reach your full potential. With the First Endurance system you don't need to eat, drink or supplement with anything else. The following guide outlines exactly how and when to use the First Endurance nutrition system for training and racing in duration from 45 minutes to 24 hours. So there's no guessing about what you need or when to take it.

The following guidelines are general recommendations for using the First Endurance products. Because athletes differ considerably in age, weight, type of training, goals and nutritional preferences, these guidelines can be adjusted as needed to achieve individual targets. All First Endurance products are effective, safe and legal for all sports and designed to work together as a complete system.

WORKOUT GUIDELINES

DAILY SUPPLEMENTATION

MultiV or MultiVPRO should be used daily for year round micronutrient support.

Optygen/OptygenHP should be used during all intense training and racing. It will allow you to train at a higher level by improving the body's ability to adapt to physical stress, increasing aerobic threshold and reducing lactic acid. These improvements will help you to race at a higher level. For best results, Optygen should be used consistently for many months. If you start taking Optygen a week before a race, benefits will be minimal.

PreRace can be used up to 2X per week in order to improve the endurance or intensity of your workout.

EVO1 can be used as a healthy meal replacement.

RACE OR TRAINING SESSIONS: 45 MINUTES OR LESS

Nutritional Purpose:

The goal of this race or training session is to maximize your performance over a short period of time. The key is to make sure your electrolytes and glycogen stores are maximized before the session begins. Because these sessions do not excessively deplete the body of glycogen, carbohydrate fueling is not necessary and recovery can be accomplished by having a quick snack and/or a serving of EFS/EFS-PRO drink.

Pre: Consume up to one serving PreRace and ½ serving EFS/EFS-PRO drink 30 to 60 minutes pre-exercise.

During: Consume water as needed.

Post: Have a snack and/or ½ serving EFS/EFS-PRO drink.

RACE OR TRAINING SESSIONS: 45 MINUTES TO 2 HOURS

Nutritional Purpose:

The goal of this race or training session is to maximize your performance over a short to moderate duration. The key is to make sure electrolytes and glycogen stores are maximized before you start.

Pre: Consume up to one serving PreRace and ½ serving EFS/EFS-PRO 30 to 60 minutes pre-exercise.

During: Drink water the first 30 minutes then switch to 1 serving of EFS/EFS-PRO every 30 minutes the rest of the time. EFS Liquid shot can be used in cold environments.

Post: ½ to 1 serving of Ultragen

RACE OR TRAINING SESSIONS: 2 HOURS TO 2.5 HOURS

Nutritional Purpose:

The goal of this race or training session is to maximize your performance over a moderate duration. The key is to make sure electrolytes and glycogen stores are maximized before the session begins. You will require electrolyte, carbohydrate, amino acid supplementation in order to maximize performance and recovery. To ensure success, you should test your nutrition program consistently in training so you have it dialed for race day. You should focus on maintaining glycogen stores and electrolyte balance (not just sodium) in order to improve performance and recovery. When training or racing in hot temperatures, electrolytes, drink osmolality and solution concentration are critical to absorption.

Pre: Have up to 1 serving PreRace and 1 serving EFS/EFS-PRO drink mix 30 to 60 minutes pre-exercise.

During: Drink water the first 30 minutes then switch to 1 serving of EFS/EFS-PRO every 30 minutes for the duration. Supplement with EFS Liquid Shot if extra calories are needed. For added kick, consume a ½ serving PreRace towards the end of your session. EFS Liquid Shot can be used as your primary fuel in cold environments.

Post: 1 serving of Ultragen

RACE OR TRAINING SESSIONS: 5 HOURS TO 10 HOURS

Nutritional Purpose:

The goal of this race or training session is to maximize your performance over a long period of time. The key is to make sure your electrolytes and glycogen stores are maximized before you start training/racing. You'll require electrolyte, carbohydrate and amino acid supplementation to maximize performance and recovery. To ensure success, you should test your nutrition program consistently in training so you have it dialed for race day. You should focus on maintaining your glycogen stores and electrolyte balance (not just sodium) in order to improve performance and recovery. You may require more calories than you can get from typical energy drinks. During heat and towards the end of long sessions, electrolytes, drink osmolality and solution concentration are critical to absorption. Athletes will vary greatly in their ability to absorb calories above 300Kcal per hour. It is critical to test high caloric intake in ALL of your long training sessions in order to develop and refine your personal caloric demand schedule.

Pre: Have up to 1 serving PreRace and 1 serving EFS/EFS-PRO drink mix 30 to 60 minutes pre-exercise.

During: Consume 1 serving of EFS/EFS-PRO every 30 minutes. For additional calories, use EFS-PRO at a higher concentration or supplement with EFS Liquid Shot. For an additional boost in performance have ½ - full serving PreRace towards the end of this session.

***Additional electrolyte pills/tablets are not necessary.**

Post: Consume 1-2 serving of Ultragen. DO NOT CONSUME MORE THAN 2 SERVINGS. If you feel like you want to use a serving in the latter half of the exercise session, only have one additional afterwards. If you don't have any Ultragen during the session, you can consume

up to 2 servings post-exercise as needed.

RACE OR TRAINING SESSIONS: 10 HOURS ++

Nutritional Purpose:

The goal of this race or training session is to maximize your performance over an ultra-long duration. It's critical to make sure your electrolyte and glycogen stores are maximized before you start. You'll require electrolyte, carbohydrate and amino acid supplementation to maximize performance and recovery. Most athletes will want additional solid foods. To ensure success, you should test your nutrition program consistently in training so you have it dialed for race day. If you're training or racing longer than 10 hours, you'll need more calories than typical energy drinks deliver (7% solution).

HOW TO AVOID GI DISTRESS:

Electrolytes, drink osmolality and drink mix concentrations are critical for effective absorption and digestion in hot temperatures and towards the end of extremely long training/racing sessions. Athletes can vary greatly in their ability to absorb more than 300Kcal per hour. Because of this, it's critical to practice your personal high-caloric intake in ALL your long training sessions so you can fine-tune a nutrition program that works best for you. Use the recommendations below as the foundation for fueling during your ultra-long workouts and modify them as needed. You may find you need additional calories (which can come from bars or other solid foods) or you may see that you don't need as many calories that are outlined.

Pre: Have up to 1 serving PreRace and 1 serving EFS/EFS-PRO drink mix 30 to 60 minutes pre-exercise.

During: Have 1 serving of EFS/EFS-PRO every 30 minutes. For additional calories, use EFS-PRO at a higher concentration or supplement with EFS Liquid Shot. For added performance have ½ - full serving PreRace towards the end of this session. In extremely HOT conditions, use EFS-PRO exclusively. *Additional electrolyte pills/tablets are not necessary.

Post: Consume 1-2 servings of Ultragen. Do not exceed 2 servings. If you decide to use a serving in the latter half of the exercise session, only 1 additional serving is required afterwards. If no Ultragen is used during the exercise session, then you can consume up to 2 servings post-exercise as needed.



OPTYGEN - OPTYGEN HP

These innovative formulas are based on clinical trials and the latest scientific research on maximizing oxygen utilization in endurance athletes. All of the nutrients in these formulations have been studied extensively for their ability to increase VO2Max, modulate cortisol, increase the body's ability to acclimatize to high levels of physical stress, and increase anaerobic threshold. They're here to help you to train at a higher level by improving the body's ability to adapt to physical stress, leading to more consistent training during hard training blocks so you can train and race at a higher level.

The new and improved OPTYGENHP has been engineered to optimize performance for endurance athletes and is the best OPTYGEN formula we've ever developed. This next-generation OPTYGENHP has been upgraded with the most potent blend of Cordyceps mushroom available to maximize your VO2max and time to exhaustion. In addition, there's a clinically effective dose of premium grade Rhodiola because the latest clinical research shows the combination of these two endurance-specific adaptogens improves aerobic performance. Each serving also delivers 1500mg of Beta-Alanine to boost strength and enhance exercise capacity so you can exercise longer.

Maximize the benefits of Optygen - Optygen HP

For best results, Optygen /OptygenHP should be used consistently for many months. If you start taking Optygen a week before a race, benefits will be minimal.



PRE RACE

PreRace is designed to help you improve performance. It provides all the ingredients needed to increase time to exhaustion, increase maximum workload, improve mental clarity and increase oxygenation of muscles. Features (ingredients?) include caffeine, taurine, quercetin and a proprietary neuro-stimulant blend. PreRace comes as a flavor free powder which can be added to any pre-exercise or during exercise drink, such as EFS. PreRace should be used with caution and is not recommended for daily consumption. It should only be used in key workouts or races where you need a performance edge.

Maximize the benefits PreRace:

Use PreRace for your key workouts that require you to push past your normal limits. Once a week, incorporate a workout that requires a pace or distance that is beyond your comfort zone and use PreRace to help you push past that. Make sure you give yourself enough time to recover from the workout. This is critical. If you aren't fully recovered from this workout, you won't realize the benefits of this strategy, so be vigilant in your recovery.

EFS DRINK MIX

EFS enhances performance by supplying very absorbable energy, amino acids and electrolytes. EFS delivers three different sources of carbohydrates for immediate energy and easy digestion during both long and intense workouts. The clinically proven 7% carbohydrate solution provides an ideal fluid absorption in most situations. Glutamine, Leucine, Iso-Leucine and Valine help improve glycogen re-synthesis and reduce mental fatigue. EFS delivers all five electrolytes (over 1100/mg per serving) at a level endurance athletes require to prevent cramping and dehydration.



Maximize the benefits of EFS

For best results, have 1 serving of EFS or EFS-PRO drink 15-30 minutes prior to exercise and then 1 serving every 30 minutes during exercise. EFS & EFS-PRO can be used as your daily fuel for training and racing in any condition. EFS-PRO is designed specifically for extremely hot or extremely long racing. If you have a sensitive stomach, you should also consider upgrading to EFS-PRO.

EFS PRO DRINK MIX

EFS-PRO was developed for the most extreme condition and/or for athletes with sensitive stomachs. This formula delivers 1,400mg of electrolytes per serving. EFS-PRO deliver a proprietary blend of carbohydrate sources that each offer unique benefits for endurance athletes. The primary carbohydrate used in EFS-PRO is an amylopectin multi-branched cyclic dextrin that's 100% soluble in water. It's a high-glycemic carbohydrate that has little effect on insulin and does not inhibit fat oxidation. This means you'll be able to sustain hard efforts through the increased use of fats, which allows you to spare essential glycogen. EFS-PRO also contains L-Alanyl L-Glutamine for an unmatched absorption of liquids, electrolytes & amino acids. EFS-PRO is also practically free of sweetness making the flavors very, very mild.





MultiV

Endurance MultiV is designed to meet the unique requirements of endurance athletes. Features include clinically effective doses of iron, vitamin K2, vitamin D, and unparalleled antioxidant protection. In addition, Endurance MultiV also contains special digestive enzymes that improve carbohydrate utilization and time to exhaustion, Green Tea for improved endurance capacity, fat utilization and Zinc for enhanced muscle recovery.

It's estimated that 30-50% of endurance athletes have depleted iron levels. When iron levels are low, less oxygen is delivered to the muscles and aerobic capacity declines. To ensure peak performance, MultiV is formulated with a highly bioavailable Iron Amino Acid Chelate that's also gentle on the stomach.

Maximize the benefits of MULTI-V

It's important to take MultiV everyday with a meal. Endurance athletes have unique vitamin and mineral requirements that can quickly become depleted. When this occurs, the body will not perform optimally.



MultiV-PRO

MULTIV-PRO delivers a number of unique benefits in one powerful endurance formula. It provides the most bioavailable vitamins and chelated minerals available, including a full-spectrum antioxidant and polyphenol blend and key nutrients, like ginkgo biloba and green tea extract- all of which have been shown in clinical studies to improve performance.

This is the first multivitamin to deliver a clinically effective dose of 1-3, 1-6 Beta-glucan to strengthen the immune system so athletes stay healthy following intense training and racing. Endurance athlete's digestive systems are often compromised by the stresses of hard training. MULTIV-PRO contains important enzymes, probiotics and prebiotics to help the absorption of nutrients and enhance the health of intestinal flora.

EFS LIQUID SHOT



EFS Liquid Shot is designed to complement your primary fuel. EFS Liquid Shot contains three carbohydrates, amino acids and a mild electrolyte blend in a powerful 400 calorie formula. The Liquid Shot differs from other gels because Liquid Shot doesn't have any 'gelling agents' that have been shown to slow down absorption and digestion.

Maximize the benefits of EFS LIQUID SHOT

EFS Liquid Shot is designed to be used instead of gels. They can be also diluted (with water) to meet your personal preference. EFS Liquid Shot is the perfect complement to EFS or EFS-PRO drink mixes for long distance training or racing in the heat. EFS Liquid Shot should be used as your primary fuel during cold training and racing.

ULTRAGEN



The great-tasting Ultragen formulas are designed to give you everything you need to maximize recovery so you can be at your best for the next day of training or racing. Features include 20 grams of the highest quality protein available to rebuild and refuel exhausted muscles, 6 grams of glutamine to improve glycogen resynthesis and prevent overtraining and

4.5 grams of branched-chain amino acids to help decrease muscle damage, speed up recovery and reduce fatigue.

Ultragen contains special proteins (Whey Protein Isolate and Hydrolyzed Whey Protein) that meet the unique requirements of endurance athletes. Fast acting Whey Protein Isolate delivers high levels of anti-catabolic branch chain amino acids. Hydrolyzed Protein is enzymatically predigested in small, easy to digest, di- and tri-peptide chains that are quickly absorbed for muscular recovery. This is important because small molecule proteins are superior to the larger, hard to digest Whey Protein Concentrates that are used in most recovery products. The unique protein in Ultragen is absorbed faster and easier assuring you maximize recovery during the critical thirty-minute glycogen "window of opportunity". The result: quicker recovery, improved endurance and the ability to race at a higher level.

Maximize the benefits of ULTRAGEN

Ultragen is designed to be absorbed quickly. For maximum recovery, mix Ultragen with water and consume immediately after exercise. Mixing Ultragen with anything besides water and/or consuming other foods during the first thirty minutes after exercise will slow down absorption. Thirty minutes after using Ultragen you should drink and/or eat something else.