

## PRODUCT USAGE

The following guidelines are general recommendations for the use of First Endurance™ products. Because athletes differ considerably in age, weight, scope of training, goals, budget and nutritional preferences these guidelines can be adjusted as needed to achieve individual targets. The First Endurance product line is designed to work both synergistically as well as individually, although hard training athletes are encouraged to use First Endurance products as a complete system for maximum benefit.

## PRODUCT DESCRIPTIONS



### OPTYGEN™ OR OPTYGEN HP™:

For best results, use Optygen during all intense training blocks. Optygen allows training 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 achieve performance at a higher level. For best results, Optygen should be used consistently over the course of many months. Use of Optygen just a week before a race will produce minimal benefits.



### MULTIV™:

MultiV is a complete endurance multivitamin that contains all of the necessary vitamins, minerals and unequalled ORAC antioxidant protection to help keep you healthy while protecting you from harmful pollutants and oxidants. To significantly increase time to exhaustion, take MultiV with a pre-exercise meal on training days. If MultiV is not taken with a pre-exercise meal, the acute performance enhancing benefits will not be realized. If using MultiV with a pre-exercise meal is not an option, using MultiV with a recovery meal will help improve glycogen resynthesis and recovery. On non-training days, MultiV should still be taken with any meal.



### PRERACE™:

Designed to help endurance athletes improve performance, the PreRace formula provides all the necessary ingredients to improve mental clarity as well as time to exhaustion, maximum workload, and oxygenation of muscles. Features 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, like EFS™. This product should be used with caution and is not recommended for daily consumption. Use PreRace only for those workouts or races that require a performance edge.



### EFS™:

EFS is unlike any other endurance drink mix available, enhancing performance by supplying energy, amino acids and electrolytes for muscles to use when fuel stores begin to drop. EFS provides three different sources of carbohydrates for immediate energy and easy digestion during long and intense workouts, while the low osmolality of the EFS drink and ideal 7% carbohydrate solution provides superior fluid absorption. The first energy drink to be fortified with clinically effective doses of the amino acids Glutamine, Leucine, Iso-Leucine and Valine, EFS improves glycogen re-synthesis and delays central (mental) fatigue through positive influence on the tryptophan/branched chain amino acid ratio. EFS is also fortified with 200% RDA of vitamin C to enhance the body's immune function, fight free radicals and keep athletes healthy for future training and racing. Clinical research shows endurance athletes require much higher levels of electrolytes than most sports drinks provide. EFS delivers all five electrolytes in over 1000/mg per serving – the level endurance athletes need to prevent cramping and dehydration. With EFS as the foundation for fueling races and workouts of any length, extra electrolyte pills or other drink additives are no longer necessary.



### ULTRAGEN™:

Racing and intense training puts a body under incredible stress by depleting glycogen stores, elevating cortisol and draining essential vitamins and minerals. For endurance athletes, it's crucial to focus on recovery in order to be competitive the day after a hard workout or race. That's why Ultragen is the most advanced post-recovery formulation ever produced. Each serving of Ultragen delivers the levels of nutrients that have been shown in clinical research to maximize recovery and provide an extra edge over the competition. Ultragen's many components are designed to work synergistically in order to fully maximize recovery, providing the right nutrients to the right place at the right time. Ultragen is fortified with 20g of fast acting proteins, over 10g of amino acids, all five electrolytes, advanced levels of antioxidants and 60g of glucose, the fastest carbohydrate available. The result is a formula that delivers clinically effective nutrients faster than any other on the market.



## **WORKOUT GUIDLINES**

### **RACE OR TRAINING SESSION: 45 MINUTES OR LESS.**

#### Nutritional Purpose:

The goal of this race or training session is to maximize performance over a short duration. Critical preparation includes making sure fluid, 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 through a quick snack or with a sport drink. Optygen™, or OptygenHP™ and MultiV™ should be used daily for improved training, health and recovery.

**PRE:** For 30 to 60 minutes pre-exercise, consume up to one serving PreRace™ and 1/2 serving EFS™.

**DURING:** Consume water as needed.

**POST:** A snack or 1/2 serving EFS.

### **RACE OR TRAINING SESSION: 45 MINUTES TO 2 HOURS**

#### Nutritional Purpose:

The goal of this race or training session is to maximize performance over a short to moderate duration. Critical preparation includes making sure electrolytes and glycogen stores are maximized before the session begins. Depending on training state, heat and duration, fueling and recovery need to be addressed. Though athletes can finish these training sessions with no nutritional considerations, performance and recovery can be compromised. Athletes should focus on maintaining glycogen stores in order to improve performance and recovery. Optygen™, or OptygenHP™ and MultiV™ should be used daily for improved training, health and recovery.

**PRE:** For 30 to 60 minutes pre-exercise consume up to one serving PreRace™ and 1/2 serving EFS™.

**DURING:** Consume water the first 30 minutes and 1 serving of EFS for every 30 minutes there after.

**POST:** 1/2 to 1 serving of Ultragen™

### **RACE OR TRAINING SESSION: 2 TO 5 HOURS**

#### Nutritional Purpose:

The goal of this race or training session is to maximize performance over a moderate duration. Critical preparation includes making sure electrolytes and glycogen stores are maximized before the session begins. All athletes will require electrolyte, carbohydrate, and amino acid supplementation in order to maximize performance and recovery. Nutritional practices for sessions this long need to be replicated consistently in training, not just on race day, with focus on maintaining glycogen stores and electrolyte balance (not just sodium) in order to improve performance and recovery. Electrolytes, drink osmolality and solution concentration are critical to absorption when exercising or racing in extreme heat. Optygen™ or OptygenHP™ and MultiV™ should be used daily for improved training, health and recovery.

**PRE:** For 30 to 60 minutes pre-exercise, consume up to one serving PreRace™ and 1 serving EFS™ (drink or bar).

**DURING:** Consume 1 serving (1 scoop in 12oz water) of EFS for every 30 minutes of exercise. Consume an additional EFS bar once every 2 hours as needed. For added kick, consume 1/2 serving PreRace in the latter part of this session.

**POST:** 1 serving of Ultragen™



## **WORKOUT GUIDELINES CONTINUED**

### **RACE OR TRAINING SESSION: 5 TO 10 HOURS**

#### **Nutritional Purpose:**

The goal of this race or training session is to maximize performance over a long duration. Critical preparation includes making sure electrolytes and glycogen stores are maximized before the session begins. All athletes will require electrolyte, carbohydrate, amino acid supplementation in order to maximize performance and recovery. Nutritional practices for sessions this long need to be replicated consistently in training, not just on race day. Athletes should focus on maintaining glycogen stores and electrolyte balance (not just sodium) in order to improve performance and recovery. Durations nearing 10 hours may require caloric density greater than typical energy drinks. In heat and during latter portions of long duration exercise, electrolytes, drink osmolality and solution concentration are critical to absorption. Athletes will vary greatly in the ability to absorb calories above 300Kcal per hour, therefore it is critical that practicing high caloric intake becomes a staple in all long training sessions in order to develop an individualized caloric demand schedule. Optygen™ or OptygenHP™ and MultiV™ should be used daily for improved training, health and recovery.

**PRE:** For 30 to 60 minutes pre-exercise, consume up to one serving PreRace™ and 1 serving EFS™ (drink or bar).

**DURING:** Consume 1 serving of EFS for every 30 minutes. Consume an additional EFS bar once every 1-2 hours as needed. Consume 1 serving Ultragen™ in the latter half of this long session, and for added kick consume 1/2 serving PreRace as well. When using EFS as your primary fuel, additional electrolyte pills are not necessary.

**POST:** Consume 1-2 serving of Ultragen. Ultragen use should not exceed 2 servings, so if a serving is consumed in the latter half of the exercise session, only one additional serving is required afterwards. If no Ultragen is used during the exercise session, then an athlete can consume up to 2 servings post-exercise as needed. Consume an EFS bar 30 minutes after consuming post-exercise Ultragen.

### **RACE OR TRAINING SESSION: 10++ HOURS**

The goal of this race or training session is to maximize performance over an ultra-long duration. Critical preparation includes making sure electrolytes and glycogen stores are maximized before the session begins. All athletes will require electrolyte, carbohydrate, amino acid supplementation in order to maximize performance and recovery. Most athletes will prefer some additional solid foods. Nutritional practices for sessions this long need to be replicated consistently in training, not just on race day. Exercise sessions greater than 10 hours require caloric density greater than typical energy drinks (7% solutions). In heat and latter portions of long duration exercise, electrolytes, drink osmolality and solution concentration are critical to absorption. Athletes will vary greatly in the ability to absorb calories above 300Kcal per hour, therefore it is critical that practicing high caloric intake becomes a staple in all long training sessions in order to develop an individualized caloric demand schedule. Athletes should use these recommendations as the foundation for fueling ultra-long workouts, but will need additional calories which can come from gels, bars or other solid foods. Optygen™ or OptygenHP™ and MultiV™ should be used daily for improved training, health and recovery.

**PRE:** For 30 to 60 minutes pre-exercise, consume up to one serving PreRace™ and 1 serving EFS™ (drink or bar).

**DURING:** Consume 1 serving of EFS for every 30 minutes. Consume an additional EFS bar once every 1-2 hours as needed. Consume 1 serving Ultragen™ in the latter half of this long session, and for added kick consume 1/2 serving PreRace as well. Consume additional gels, liquid shots, bars, snacks or solid foods as necessary and based on preference and your individualized caloric demand. When using EFS as your primary fuel, additional electrolyte pills are not necessary.

**POST:** Consume 1-2 serving of Ultragen. Ultragen use should not exceed 2 servings, so if a serving is consumed in the latter half of the exercise session, only one additional serving is required afterwards. If no Ultragen is used during the exercise session, then an athlete can consume up to 2 servings post-exercise as needed. Consume an EFS bar 30 minutes after consuming post-exercise Ultragen.

