**Nutrition for Endurance Athletes**

**Carbohydrates (CHO)**

 How much CHO do I need per day? 6g CHO per kilogram of body mass (kgbm)

**Calculations:**

Lbs to kgbm= lbs/2.205

CHO per day= kgbm X 6

**Complex vs Simple Carbohydrates:**

 Simple CHO have shorter molecular chains and digest quickly, which causes a spike in blood sugar levels.

Simple CHO to avoid: Soda, baked sweets, packaged cookies, fruit juice concentrate, white bread, pasta, refined and processed sugars

Complex CHO have longer molecular chains and therefore take longer to digest, providing your body with more stable energy levels- try to eat mostly these.

Complex high CHO foods:

Quinoa (1c=32g)

Oats (1c=32g)

Bananas (27g)

Sweet Potatoes (1c=27g)

Beets (1c=13g)

Orange (11g)

Blueberries (1c=11g)

Grapefruit (1/2= 13g)

Apple (25g)

Kidney Beans (1c=110g)

Chickpeas (1c=121g)

Buckwheat i.e. soba noodles (1c=34g)

Whole Wheat Spaghetti (1c=38g)

Spaghetti (1c=44g) *Note*: This is a simple CHO, whole-wheat provides a better quality CHO

Other Complex CHO foods: peas, whole grains, whole-wheat pasta, carrots, leafy greens, beans

**Protein (PRO)**

 How much PRO do I need per day? 1.83g PRO/kilogram of body mass

**Calculation:**

PRO per day= kgbm X 1.83

High PRO foods:

Eggs (6g/egg)

Almonds (1oz=6g)

Oats (1c=12g)

Cottage Cheese (1c=27g)

Greek Yogurt (6oz=17g)

Milk (1c=8g)

Broccoli (1c=3g)

Quinoa (1c=8g)

Lentils (1c=18g)

Ezekiel Bread (1 slice=4g)

Pumpkin Seeds (1oz=5g)

Brussels Sprouts (1/2c=2g)

Peanuts (1oz=7g)

Shrimp (3oz=18g)

Salmon (3oz=19g)

Turkey Breast (3oz=24g)

Lean Beef (3oz=22g)

Tuna (1c=39g)

Chicken (1 breast=53g)

Other high PRO foods: flax seeds, sunflower seeds, chia seeds, kidney beans, chickpeas, full-fat yogurt, kefir, parmesan, swiss, mozzarella, cheddar, pistachios, cashews.

*Considering a PRO supplement?*

Look for a complete protein (contains all 20 BCAAs).

Examples: Whey protein (20-50g/serving) or Casein (25g/scoop).

*Note*: Consuming 20-40g of protein prior to sleep optimizes recovery

*Note*: Casein promotes sleep

**Post Exercise Snack**

PRO & CHO rich, within 30 minutes of exercise

Examples: trail mix, protein bar, orange, apple

**Supplements**

We recommend:

* Vitamin D
* Calcium
* Iron

If you are iron deficient, you are not going to reach your full potential.

*Caution*: Calcium, coffee and tea (high tannin level beverages), and eggs all block and/or inhibit iron absorption

*Note*: Vitamin C enhances iron absorption.

*Note*: Take iron every other day to increase absorption.

*Recommended Brands*: Nature Made Ferrous Sulfate or liquid iron

Get iron/ferritin tested every 6-8 weeks.

**Race Day Nutrition:**

CHO and water are the most important the day of. 96-98% of your daily energy comes from CHO.

Consume 2 ½ g CHO/kgbm 2-3 hours pre race.