### **NUTRITION ADDENDUM**

Below is a "general" plan for athletes to follow to ensure that they are receiving the proper balance of nutritional needs to properly fuel their body for optimum performance. Each athlete is different and each has her own specific needs, but the plan below covers most. For a more individualize and specific plan, see a sports' nutritionist.

Nutritional needs also vary among event groups. Sprinters and throwers will need more protein and less carbs than distance runners, who need many more carbs and less protein. All event groups require the same intake of water needs.

Immediately fueling within 30 minutes after exercise or competition is also important, especially water and carb replacement, with a bit of protein. The body will absorb and re-fuel more quickly and completely if done within 30 minutes after exercising. Chocolate milk is a great re-fueling source.

We strongly suggest that all meals and snacks try to meet the percentages listed below. If athletes try to eat several small meals and snacks throughout the day, with the ratios and percentages listed below, they will better maintain a steady fuel supply throughout the day for all activities that they participate in.

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#### **CARBS**

Athletes need 45-65% of their daily calories from carbs to properly fuel their body for activity and for recovery/adaption

Track & Field athletes need 2.3-3.2 grams of carbs per pound of body weight (that's 23-32 servings per day, with serving size being half a cup.

Distance runners need 2.7-4.5 grams per pound of body weight (that's 27-45 servings per day).

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## **PROTEIN**

Athletes need 10-35% of their total calories per day to be protein.

About 0.6-1.0 grams per pound of body weight = 90-135 grams per day. About 20% of each meal or snack should contain protein.

The body does not store protein – the body uses what it needs and then excretes the rest out. The timing of when protein is eaten is critical – it must be spread out evenly throughout the day to be available when needed – otherwise, the body will take what it needs from muscle, which is opposite of what an athlete wants. Athletes want to build muscle, not break it down.

### **FAT**

Quality fat is needed for hormone balance which regulates muscle contractions, immune function & blood pressure. Fats also aid absorption of vitamins A, D, E, and K, which dissolve in fat.

About 10-15% of total calories per day should be of "good" fat variety.

#### **HYDRATION**

45-75% of our body weight is comprised of water. Lean tissue holds more water than fat, so athletes who tend to have more muscle mass will carry a higher percentage of water in their bodies.

Fluid loss of just 1% can be detrimental to performance.

Athletes should drink half of their body weight each day (weigh 100 lbs., drink at least 50 ounces of water per day – other foods, which also contain water, contribute to this volume).

Post exercise/competition – need to drink 20-24 ounces of water to replace one pound of body weight lost during a practice or competition.

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# **MICRONUTRIENTS** (vitamins, minerals, phytonutrients)

These do not provide energy, but they do regulate processes that produce energy.

Fat soluble (A, D, E, & K need fat to dissolve in the body) these are stored in the fat cells throughout the body, so excessive intake can be harmful.

Water soluble (B complex vitamins and vitamin C) – body takes what it needs and excretes excess via urine.