

**Basic Nutritional Principles:****1. Eat frequent, small to medium sized meals**

Eating in excess at one single meal combined with infrequent meals throughout the day can lead to poor training gains and poor recovery. This feeding pattern can lead to loss of lean body mass and an increase in fat mass.

Eating frequently and choosing healthy food choices such as high quality low fat protein, complex fibre-rich carbohydrates, and good fats are essential for all athletes who are training to gain lean body mass and maximal strength.

A small meal consisting of a complex carbohydrate, protein and good fats should be eaten 5-6 times per day. This usually translates into a small meal every 2-3 hours throughout the day. This type of feeding pattern will help to keep your energy levels high and to give you the proper nutrients for recovery between hard workouts.

**2. Eat protein with all meals**

Protein is a very important nutrient, especially for athletes who are trying to increase maximal strength and lean body mass. There is strong evidence pointing to the importance of having a little bit of protein with each meal to assist with increasing lean body mass along with .

It is critical that you choose good sources of protein. Some good examples are; milk protein blends are yogurt, low fat cottage cheese, whey protein, and casein protein. Other good sources of protein are: chicken, low fat beef, canned (or fresh) tuna/salmon, prawns turkey, egg whites, all fish, lean pork cuts, and finally nuts and seeds.

Remember all your meals should contain some protein. Most experts recommend approximately 1.5 grams of protein per kilogram of body mass for healthy adults who are engaging in daily rigorous physical activity. There is evidence that high performance athletes can achieve even better results with 2.0 to 2.5 grams of protein per kilogram of body mass. To determine the appropriate protein intake multiply your body weight (in kg's) by 2.0. For example, an athlete weighing 80 kg would need:

$$80 \text{ kg} \times 2.0 \text{ grams} = \underline{\underline{160 \text{ grams of protein/day}}}$$

It is critical to mention that you do not need to eat excessive amounts of protein to gain muscle. Having small frequent meals throughout the day, and a good hourly energy balance is far more critical for gaining muscle.

**3. Eat more food after training-**

During exercise your body's protein structures are broken down and carbohydrate stores are depleted. Following exercise your body is "hungry" to replace these nutrients. It is critical that out of your six meals in the day that the biggest meals are eaten following your workout.

Once again, choose healthy carbohydrates, fats and proteins.

#### 4. Zero tolerance for sweets and fatty carbohydrates-

Your body is a temple. Eating sweets and fatty carbohydrates such as potato chips, high sugar juices, fizzy drinks, chocolate bars, ice cream, chicken wings, and most pizza's should be avoided by athletes.

Eating sweets and fatty carbohydrates will result in increased fat mass, big blood sugar fluctuations, and poor recovery. If you are serious about your training, you will have the self-discipline to completely avoid these items.

#### 5. Drink plenty of water-

Throughout the day you lose body water in sweat, breath, tears and other fluids. For athletes this is a huge concern because even a small change in hydration levels can cause decreases in performance.

Proper hydration is crucial for all athletes. You are advised to carry a water bottle with you throughout the day. Sip the water at frequent intervals to maintain hydration. As an alternative to coffee, drink green tea.

### Pre- and Post-Workout Nutrition:

#### Rationale

Evidence strongly suggests that the acquisition of muscle protein is a result of the workout stimulus **PLUS** the proper nutrition during the workout and more importantly during the 24 hours immediately after the workout.

As a result of this evidence, it is critical that you begin to either: improve, refine or continue the use of proper nutritional recovery strategies.

#### General Recommendations

1. Mix 0.8 g/kg body mass of carbohydrates with 0.4 g/kg body mass of protein in 1 L of water **pre-workout**. Drink this throughout your workout. For example Sports drink and whey protein.
2. Mix 0.8 g/kg body mass of carbohydrates with 0.4 g/kg body mass of protein in 1 L of water **post-workout**. Drink this after your workout. A good mix is Gatorade and whey protein.
3. Have 2-3 tbsp of flax oil or a high quality fish oil throughout the day. Essential fatty acids are very important for your health and recovery.
4. MAKE ABSOLUTELY SURE that you eat plenty of high quality, nutrient rich food in the 24 hours post-workout- if you miss one meal you are **IMPEDING** your recovery. Every workout contributes to an accumulation of proteins- if you eat poorly for 30% of your meals you will be missing 30% of your results!