Nutrition

The Importance of Exercise and Nutrition

Poor nutrition can lead to fatigue, dehydration and poor health; all of which negatively affect athletic performance! Fueling your body correctly is often overlooked by athletes but it is an ESSENTIAL aspect in sports performance.

Carbohydrates

Carbohydrates are the body primary source of energy. Carbohydrates are broken down into glucose which the body uses for energy. Glucose is needed to maintain blood sugar levels. Glucose is stored in the liver and muscles as glycogen. Having sufficient stores of glycogen is vital for athletic performance.

Glycemic Index

Glycemic Index is the ranking of food’s ability to raise blood sugar levels.

- High GI foods enter the blood stream quickly helping to replenish the glycogen lost in exercise (good during long exercise, or directly after exercise)
- Low GI foods enter the blood stream slowly giving the body energy over the course of a workout (good before workouts)

Protein

Protein is the structural base of all muscle in your body. Protein in your diet is needed to grow, maintain, and repair muscle. Complete Proteins (meats, chicken, turkey, pork, fish, seafood, eggs, and dairy products) have all 9 essential amino acids in it. Incomplete proteins (plant based foods) are missing 1 or more of the 9 essential amino acids. If you combined 2 incompletes proteins you can make a complete protein. (Ex: Bread and peanut butter, rice and beans, or soy milk and cereal)

Fats

Not all fat is bad but a high fatty diet causes negative impact on athletic performance. Unsaturated fat is seen a better fat in your diet (ex: corn oil, safflower oil, canola oil, olive oil, and other vegetable oils) than saturated fat which is looked at as bad fat (ex: butter, beef, pork, lamb, poultry, partially hydrogenated oils and fats, coconut oil). Fat is essential for athletic
performance as well as over health, growth and development. Fat is also the primary source of every for aerobic athletes because fat provides more energy from less. Whereas, carbohydrates are the main energy source for high intensity, anaerobic athletes.

**Meal Breakdown (Carbs, Protein and Fats)**

**Carbs: 60-65% of total calories (2.5 to 4.5 grams per pound of body weight):**

- Breakfast: Whole grain breads, cereals and muffins, bagels, pancakes, waffles, grits, fruits, yogurt, and low fat milk
- Lunch and Dinner: Pasta, wheat bread, brown rice, potatoes, legumes, vegetables, fruits and dairy

**Snacks: Hard and soft pretzels, crackers, fruits, juices and muffins**

**Protein: 15-20% of total calories (1/2 to 1 gram per pound of body weight):**

- Breakfast: Eggs, lean breakfast meats and soy products (milk, yogurt)
- Lunch and Dinner: Turkey, chicken, lean beef and pork, fish, seafood, beans, legumes

**Fats: 15-25% of total calories (1/2 gram per pound of body weight):**

- Breakfast: Oils, butter, cream cheese
- Lunch and Dinner: Non-creamy salad dressings, oils, cheeses, peanut butter, walnuts, almonds

**Vitamins**

Vitamins are not an energy source but are needed to help regulate the metabolism of carbs, proteins and fats. Vitamins are also essential in helping to regulate our hormonal, immune and nervous systems so are important in maintaining our good health. We only need to consume a little amount of vitamins. There are 2 types of vitamins:

- Water-soluble: these vitamins are not stored in the body and need to consumed regularly
- Fat-soluble: These vitamins can be stored in the body but still should be part of a healthy diet.
Minerals

Minerals have key roles in the body (forming strong bones and teeth, helping control the nervous system, helping control fluid balance, muscle contractions, hormonal and enzyme secretion). Minerals also cannot be made in the body and must be consumed.

Pre-Exercise Nutrition

It is important to consume low GI carbs that will fuel your workout throughout the entire time. You should eat approximately 2 hours prior to exercising. Not every kind of food sits well with everyone, so it is important to find what works for you.

Post Exercise Nutrition

Post exercise nutrition is vital for a success recovery. An athlete should drink 16oz for each pound lost during exercise. The goal of this is to replenish the electrolytes and fluids lost through sweat.


Within the hour after completing exercise, you should consume foods with high GI contents along with protein.

Healthy Weight Gain

Healthy weight gain should be around 1lb-2lbs a week. In order to make healthy weight gains you must commit to weight training (resistance training) 3-5 times a week in the offseason. A Progressive weight training program along with a sound diet will lead to healthy weight gain. Adding roughly 500 extra calories to your diet daily will help you make a healthy gain in weight.

Healthy Weight Loss

***Judging weight by a scale is not an accurate way to assess yourself***

A scale only tells you your total body weight; it does not tell you the percentage of muscle mass, fat mass, water, ect in your body. It is IMPORTANT to understand that during intense strength and conditioning, you may actually increase your muscle mass and decrease your fat mass; leading to a slight increase in weight. This is good weight. Also the more muscle you have the higher your resting metabolism will be. For example higher muscle mass body content means you will burn more calories in your sleep than with a lesser muscle mass body content.
DIETING IS NOT A SAFE WAY TO LOSS WEIGHT! Limiting your caloric intake will negatively affect your ability to recover effectively. Also dieting consistently over a period of time may cause your metabolism to slow so to store more energy. An athlete should never consume less than the minimum (1200-1500 calories a day).

For a safe way to lose weight; exercise that increases heart rate, resistance training, a healthy diet and good lifestyle habits.

Examples:

- **Metabolic Training:** High intensity training that cause your metabolic system to stay high even after exercise; interval training (lactic acid training, or sprint endurance training)
- **Aerobic Training:** Long Prolonged exercise which cause your body to burn fat over carbohydrates as the primary energy source; Distance runs
- **Resistance Training:** Increases lean muscle mass to burn more calories while your body is at rest.
- **Healthy Diet:** Select low GI foods for long lasting energy throughout the day. Eat smaller meals more often throughout the day. Avoid junk food before you go to bed.
- **Good Lifestyle Habits:** Avoid stressful situations and or become better at dealing with stressful situations. Get into a good sleeping pattern.

Goals:

- Set a realistic goals (1-2lbs a week to lose)
- Don’t buy into fad diets
- Be patient, persistence pays off

*Caloric Expenditure (calories burned) should exceed Caloric Intake (calories consumed) in a day*