Proper nutrition for active kids and athletes should be part of the foundation of a well planned, sports performance program. Without proper fuel, the athlete will not achieve their potential and may even be at risk for injury. It is important to remember that there is a correlation between the amount of training and practice that an athlete can sustain and the proper intake of healthy nutrient dense foods and fluids.

Here are some guidelines for the athlete:

**PRE-EXERCISE**

1. Three to four hours prior to exercise, athletes should consume meals that are high in carbohydrate, moderate in protein, low in fat, and adequate in fluids. This type of meal will provide energy, prevent dehydration, and delay fatigue. An example is oatmeal with milk, almonds and fruit or pasta with grilled chicken.

2. For the hour prior to exercise, the focus is carbohydrate and fluid intake. The amount of food consumed is determined by the amount of time prior to exercise. Smaller meals are eaten closer to an athlete’s starting time and larger meals are eaten when there is ample time for the meal to be digested. The athlete can set the stage for good performance by consuming the right amount of food and fluid at the right time.

**DURING EXERCISE:**

1. The intensity of exercise, the amount of gastrointestinal distress and the effects of heat and humidity are some of the reasons that proper food and fluid intake may fall short. Recommendations for food and fluid consumption during training or competition depend on the sport. It is important to remember that hydration should start at the beginning of each day, from the moment the athlete arises from sleep. Water is always a good choice.

2. For athletes who engage in prolonged exercise in the heat, carbohydrate, fluid, and electrolyte intake is absolutely critical for performance and health. Many sports drinks provide these elements.

3. Guidelines for fluid replacement during exercise include the consumption of 8 to 12 ounces at 15 to 20 minute intervals beginning with the onset of exercise.

4. During prolonged exercise, most athletes consume a beverage containing 6 to 8% carbohydrate. This type of beverage helps the athlete replace energy that is lost and minimize any effects of dehydration.

**POST EXERCISE:**

1. Within the first 30 to 45 minutes after exercise, carbohydrates should be consumed. One of the most important factors in muscle glycogen resynthesis (replacing energy stores in the muscles) is the consumption of carbohydrates immediately after exercise. This is especially important if your athlete is involved in tournament play or will be competing the following day.

2. Consumption of a small amount of protein is also beneficial to help rebuild the muscles after training or competition. A good example is a peanut butter and jelly sandwich or low fat chocolate milk and a small bag of cereal, nuts or dried fruit.

3. Weighing the athlete before and after exercise can help estimate the amount of fluid that was lost during exercise and determine how much needs to be replaced. Along with weight, monitoring urine color is a simple way to evaluate current hydration status. For every pound that is lost, 16 - 24 ounces of fluid should be consumed.

The youth / high school athlete needs support in the form of proper nutrition, hydration, and rest in order to keep performing at a high level. Sports nutrition should be considered the athlete’s most important internal resource; if an athlete doesn’t have enough fuel or fluid, he or she will not function at peak capacity. An athletes’ nutrition is critical: it promotes optimal daily energy levels, optimal daily post-exercise recovery, and enhanced athletic gains (i.e. strength, speed, stamina, endurance). Proper nutrition can provide the competitive edge in achieving greater success in athletic experiences.

Happy Training!