Nutrition and Performance

It is important that young athletes eat well-balanced meals and remain hydrated in order to achieve optimal health and performance. Bodies need to be fueled by eating proper types of foods, such as 3-5 cups of fruits and veggies a day. Doing so will ensure that young athletes play at their best. The following sites contain nutritional guidelines and food suggestions to help improve your health.

A Few Resources

MyPyramid, Steps to a Healthier You
The MyPyramid plan can help you choose the foods and amounts that are right for you. My Pyramid Tracker provides an assessment of your food intake and physical activity level.

BAM! Body and Mind
The BAM! web site answers your questions on health issues and recommends ways to make your bodies and minds healthier, stronger, and safer.

Parents Magazine
Parents Magazine has an excellent article, Healthy Snacks From A to Z, which provides you with some healthy snack suggestions.

Heath and Nutrition for Kids
The students of Green Mountain Central Schools in Vermont suggested the Health and Nutrition for Kids page from CulinarySchools.org, which has some great information about eating right and being healthy.

Fueling the Young Athlete

Nutrition plays a key role in athletic performance. Failure to provide the calories and carbohydrates that young athletes need to fuel their bodies, the fluid to maintain hydration, and the vitamins and minerals to support metabolism and tissue growth and repair will result in poor performance and an increased risk for injury and/or illness. The following nutritional guidelines will ensure that every young athlete is fueled and hydrated for optimal health and performance.

Calories

Physically active children and adolescents have calorie requirements that are 12-15 percent greater than those of their sedentary peers. The precise calorie and carbohydrate requirements
will vary depending on the type, intensity, frequency and duration of exercise in which they engage.

**Carbohydrates**

Carbohydrates provide the primary fuel for exercising muscles. It is essential that young athletes consume lots of complex carbohydrates (i.e., whole grains, fruits and vegetables) on a daily basis. In addition, it is important to ensure that young athletes get the proper amount of carbohydrates before, during and after exercise to support optimal health and performance.

**How Much to Eat and When**

**Before Exercise**

Make sure your young athletes arrive to practice well-fed. They should eat a well-balanced meal that contains 75-200 grams of carbohydrates, 2-4 hours before the practice session or competition. A snack 30 minutes prior to exercise may also be beneficial, particularly if an athlete was unable to consume an appropriate meal 2-4 hours prior. The snack should contain approximately 20-50 grams of easily digested carbohydrates.

**During Exercise**

Consuming carbohydrates during exercise may be beneficial if:

1. The exercise session is more than one hour.

2. The exercise session is very intense.

3. The athlete did not eat anything before exercise.

**After Exercise**

Replacing carbohydrates that were used during exercise within 2 hours of completing the exercise session is essential for speeding recovery and preparing for the next athletic training period. The post-exercise meal should contain approximately 150 -200 grams of carbohydrates.

**Keeping Kids Hydrated**

A number of factors place young athletes at an increased risk for dehydration and various heat illnesses. First, the higher energy expenditure of young athletes means that they produce more metabolic heat. In addition, young athletes don't sweat as efficiently as older athletes and thus cannot cool their bodies as effectively. Finally, young athletes are not as diligent about drinking fluids and their body core temperature during dehydration tends to increase faster. For these reasons it is essential that young athletes be encouraged to drink frequently even when they are not thirsty.

Research studies have shown that providing a cooled and flavored beverage produces greater fluid consumption among children and helps prevent dehydration. Parents should make sure that
athletes arrive at practice sessions, games or competitions fully hydrated. Coaches should enforce drink “pauses” every 15-20 minutes even when athletes do not feel thirsty. Parents, coaches and the athletes themselves should watch for the “warning signs of dehydration:”

**Warning Signs of Dehydration**

- Thirst
- Irritability
- Headache
- Weakness
- Dizziness
- Cramps
- Nausea
- Decreased performance

**Guidelines for Optimal Hydration**

The American College of Sports Medicine (ACSM) provides the following guidelines for the maintenance of optimal hydration:

**Before Exercise:** 16 - 20 full ounces within the 2 hour period prior to exercise

**During Exercise:** 4 - 6 full ounces

**Post Exercise:** replace 24 full ounces for every one pound of body weight lost during exercise.

**NOTE:** Your child has lots of beverage choices, but the best source of hydration is still good old fashioned water. The problem is getting your child to drink that much. If you can couple your hydration and nutrition efforts, eating snacks like bagels, trail mix, dried fruit, or pretzels will stimulate the athletes' thirst and encourage them to drink more. Alternatively, sports drinks like Gatorade are designed to stimulate thirst, so the athlete drinks more.

**Pre- and Post-Exercise Snacks for Young Athletes**

**2-4 hours before exercise**
1. Sandwich with lean meat, piece of fruit.

2. Pasta with tomato sauce.

3. Cereal with milk.

4. A bagel with peanut butter and honey, and a piece of fruit.

5. English muffin with honey and low-fat yogurt.

**30 minutes before exercise snacks**

- Honey-Energy Bars.
- Honey Applesauce Swirl: To make, stir 2 tsp. honey, or more to taste, into a single serving unsweetened applesauce snack pack.

- Honey Pretzel Dipping Sauce: Whisk 1 tbs. of your favorite spicy mustard together with 1 cup honey. Makes enough dip for 8 servings of 20 small pretzel twists.

**Post-exercise meals**

- Sandwich with 3 ounces lean meat, piece of fruit, pretzels, juice or milk.

- Pasta with tomato sauce, whole grain bread, skim milk.

- Cereal with milk, piece of fruit, toast with honey.

- Bagel with peanut butter and honey, piece of fruit, skim milk.

- 3 ounces lean meat, potatoes, cooked veggies, skim milk.

**Food & Drink Ideas for the Team Cooler**

- Bagels.

- Honey-Energy Bars.

- Breakfast bars.
• Crackers and peanut butter.

• Pretzels.

• Chex mix.

• Fresh fruit (e.g., bananas, grapes, apples) or dried fruit.

• Yogurt.