

# Nutrition for Child Athletes

Friday, October 31, 2008

A recent survey by the National Council of Youth Sports reports more than 44 million children in the U.S. participate in some type of organized sport. 75 percent of young athletes participate in sports activities year round. Child athletes need fuel for their bodies. Here's a breakdown of some of the important [nutritional](#) needs:

**Carbohydrates.** Carbohydrates (carbs) are sugars and starches found in foods. They are the main source of fuel for the body. When we eat, the digestive system breaks down carbs into glucose, a form of sugar used by the cells for energy. Some of the glucose may be used immediately.

What's not needed is stored in the muscles in the form of glycogen. When the body needs extra fuel, it converts the glycogen back into glucose. If the body's stores of glycogen aren't adequate, the body runs out of energy, leading to fatigue. A well-balanced diet provides enough carbs to sustain most athletes for about 90 minutes. Children who participate in longer events or endurance sports may need to increase their carb intake several days ahead of a sporting activity to build carb stores.

**Protein.** Protein is needed to build and maintain muscle. A major source of protein in the average American diet is meat, preferably lean meat. Non-meat sources include: dairy products, nuts, soy products and peanut butter. Most people get enough protein in their diets. Contrary to what some people believe, consuming extra protein will not build muscle faster. The best way to build bigger and stronger muscles is through regular training and exercise. Too much protein can cause dehydration.

**Vitamins and Minerals.** The body needs a variety of vitamins and minerals to run efficiently. For most children, a healthy diet should provide the right amount of these nutrients. However, athletes need to ensure they get adequate levels of two minerals: iron and calcium. Iron (found in red meat, chicken, tuna, salmon, eggs, fruits, vegetables and whole grains) carries oxygen to the tissues. Female athletes may be especially at risk for low iron. Calcium builds strong bones and helps an athlete's body resist stress fractures or broken bones. Some sources of calcium are dairy products and green leafy vegetables.

**Fats.** Not all fats are bad for the body. Fat can be a concentrated source of fuel, especially for activities lasting less than hour. Moderate amounts of healthy fats (monounsaturated and polyunsaturated) provide essential fatty acids and help the body absorb important vitamins. Generally, health experts say no more than 30 percent of the daily calories should come from fat.

**Fluids.** Water makes up a large portion of the body. It's needed for circulation, energy metabolism and elimination of waste products. As the body warms during exercise, sweat is generated to pull away the excess heat and allow cooling through evaporation. Thus, the body loses fluid volume. If fluids aren't replaced fast enough, dehydration occurs, leading to fatigue, muscle cramps, dry mouth and thirst. Severe dehydration can cause headache, dizziness, severe thirst, low blood pressure, rapid heartbeat and loss of consciousness. Athletes should drink plenty of fluids before, during and after activity. General recommendations are 4 to 8 ounces before and about 4 ounces every 15 minutes during the event. After the activity, drink 16 to 24 ounces of fluid for every pound of weight lost. Water is the best type of fluid to drink. For children who are active for more than an hour, sports drinks may be a good option because they replace lost electrolytes. Avoid caffeinated beverages because they promote dehydration.

## Feeding Young Athletes

Health experts recommend everyone participate in regular exercise and a healthy diet. Robert Gotlin, D.O., Sports Medicine Specialist at Beth Israel Medical Center in New York City, says many children don't like the idea of following a healthy diet because they don't want to be singled out by peers or eat differently from other family members. He suggests that the entire family take part in meal planning and preparation so everyone is following the same healthy diet. Proper food choices can be a battleground when parents want kids to [eat healthy](#) and kids want to make their own decisions. Gotlin recommends parents allow children to choose between two or three healthy foods instead of making good versus bad choices. For example, a child who doesn't want chicken may pick tuna instead.

Parents can also play up the importance of the sport by following one of the specific meal plans in his book, *Dr. Rob's Guide to Raising Fit Kids*. Gotlin has meal plans named for baseball, basketball, lacrosse and soccer. There's even an "all-star" menu for kids who are active with tennis, swimming, ballet, track, hockey, gymnastics, volleyball and field hockey. And although the menus are titled with a specific sport, they can be interchanged and used as the basis for a healthy diet for any athlete or non-athlete.

Child athletes need snacks to help them bridge the time between meals. Allow children to choose between healthy snacks, like string cheese, pretzels, low-fat granola or nuts. And if a child hits the school snack bar once in a while, it's not necessarily a bad thing, as long as he/she is following a healthy diet. Even desserts, like low-fat ice cream can be included as an occasional treat.

Some parents worry about calories. Gotlin says the best way to determine if a child is getting the right amount of calories is to monitor his/her weight. If a child is growing normally and sustains a healthy weight, calorie intake is adequate. Gotlin also reminds parents that breakfast is the most important meal of the day. It jump-starts the body and provides fuel to get the child through to the next meal.

The book, *Dr. Rob's Guide to Raising Fit Kids*, is published by DiaMedica and retails for \$16.95. Copies can be obtained through your local or online book retailer. All the menus in the book emphasize lean proteins, whole grains, fresh fruits and vegetables.

For general information on dietary needs of children in sports:

- [The American Dietetic Association](#)
- [The President's Council on Sports and Exercise](#)

For information about youth sports:

- [National Alliance for Youth Sports](#)
- [National Council of Youth Sports](#)