



## Sports Injury Prevention

Many sport-related injuries occur at the start of the season. This is often the result of doing “too much, too soon” or not being properly prepared. These are a few guidelines that can help to prevent injuries throughout the year.

**Practice “prehabilitation”** - Prevent injuries from occurring in the first place by strengthening at-risk muscle groups. For example, if you participate in a sport that demands the same upper body movement over and over (swimming, tennis, pitching etc.), contact your coach or athletic trainer prior to the start of the season to help you devise a shoulder-and-elbow strengthening program.

**Slowly increase your training load** - Inflammation of the tendons, stress fractures, and other injuries may result from a sudden increase in training load at the start of the season. Follow the “10% rule” by not increasing the intensity or volume of your training by more than 10% per week. For example, runners who run an average of 20 miles a week should increase that to no more than 22 miles the following week, then to about 24.2 miles the next week and so on.

**Say active** - Even if you participate in only one sport, you should engage in a variety of physical activities throughout the year. Running, biking, swimming, basketball, and many other activities are excellent ways to maintain conditioning and avoid the need to play “catch-up” when attempting to get into shape at the start of the season.

**Warm up and cool down** - Prevent pulled muscles by jogging for five minutes and then stretching for 10-15 minutes before practices and games. Following the same jogging and stretching routine after the activity can also decrease muscle soreness.

**Prevent dehydration** - Dehydration (loss of water from the body) can result from sweating during activities, especially if outdoors in hot weather. It can lead to dangerous heat illness. To prevent dehydration, drink water before, during, and after all practices and games. Cool water is preferred to warm water (like that in a bottle that sits outside) because it is more rapidly absorbed from the stomach. A good guide is as follows:

- drink 16 ounces of water 30-60 minutes before activity
- drink 4-8 ounces of water every 15-30 minutes during activity
- drink 16 ounces of water for every 1 pound of weight lost after activity

Sport drinks like Gatorade and Powerade are only really needed if the activity is very intense and lasts longer than 90 minutes.

**Get the proper nutrition** - A health diet is essential to peak athletic performance. You need to eat a good variety of foods in order to get enough calcium, iron, and protein to maintain strong bones, prevent anemia and build muscle. Here's how much of these nutrients you should be getting:

- **Calcium** - Adolescents need between 1,200 and 1,500 mg/day. Foods high in calcium include dairy products, fortified juices, broccoli, shrimp and spinach. Soda (caffeine and phosphorous), alcohol, and cigarette smoking can interfere with calcium absorption.
- **Iron** - Females 11 to 24 years old need 15-18 mg/day; males 11 to 18 years old need 12 mg/day; and males 19 to 24 years old need 10 mg/day. Foods high in iron include all meats, refried beans, green and leafy vegetables like spinach, and most cereals.

**Protein** - About 1.5 grams per kilogram of body weight per day is a good guideline for adolescent athletes. Those trying to build muscle through weight training require even more (up to 2g/kg/day). The recommended daily allowance for non-athletes is 0.8 grams per kilogram of body weight per day. Adequate protein intake can easily be obtained through the diet, without resorting to expensive and sometimes harmful protein shakes and supplements. Foods high in protein included meat, fish, poultry, eggs, dairy products, grains, breads, dried beans, and peanut butter.