

# Youth Injury Prevention

## Pediatric Sports Medicine

### University Hospitals Rainbow Babies & Children's Hospital

Sports injuries among youth can often be prevented. Here are a few guidelines to use throughout the year:

**“Prehabilitation”** – Instead of rehabilitation after a sports injury, practice “prehabilitation.” This means that athletes should get ready for the season with the right sport-specific training. A certified athletic trainer, physical therapist, strength and conditioning coach or sports medicine physician can help you set up an appropriate program for your child for the off-season. Prehabilitation also should include rehabilitating any injuries from last season. Although an old injury may no longer hurt, there is a good chance some weakness or poor flexibility exists that could make your child more likely to get another injury this season.

**The 10 Percent Rule** – Following the 10 percent rule can prevent overuse injuries such as tendonitis and stress fractures. The rule suggests starting slow and increasing training by 10 percent per week.

**Cross-Training** – Although basketball players like nothing more than playing in basketball camps in the summer and soccer players are willing to play indoor leagues all winter, sometimes the body needs rest. Year-round sport-specific training can put stress on a child's body. So, how can your child prepare for the season throughout the year? Cross-train. This means picking an activity that will maintain good cardiovascular shape but does not exert the same demands as their usual sport. We can work with you and your child to pick exercises that focus on different muscles than the primary sport.

**Flexibility** – Muscles have a tendency to become strong and tight with exercise. Since bones grow faster than muscles, it is important that adolescents stretch as they progress through their growth spurts. Pay attention to maintaining muscle flexibility because muscles can become excessively tight and inflexible. In addition to keeping muscles flexible, stretching exercises can help reduce the chance of injury.

**Core Strengthening** – Strengthening abdominal and trunk muscles is important to developing a solid base for all sports movement. Regardless of the sport, these muscles serve as the athlete's foundation. Focus on strengthening these before any other muscle group.

**Choose Properly-Fitted Shoes** – Choosing the right athletic shoe is important to prevent injuries. Footwear that fits properly can provide protection from overuse injuries, help the athlete avoid blisters and allow for a more enjoyable experience.

**Wear Mouth Guards** – The American Dental Association recommends wearing a mouth guard for all contact or collision sports. There are multiple types of mouth guards. Consulting your sports medicine specialist can help you choose the right one for your child. Types of mouth guards include Stock, an off-the-shelf mouth guard that is preformed and cannot be altered; Boil and Bite, a guard that, when placed in hot water before a child bites into it, imprints teeth into the rubber; and Custom Molded, a version that is custom molded to the teeth.

**Keeping Hydrated** – Hydration lets your child's body perform to its full ability and helps prevent heat illness and cramping. Make sure children drink before they are thirsty, and drink before, during and after an activity.

**Concussion Treatment Can Prevent It from Happening Again** – A child suspected of suffering a concussion should be immediately removed from competition and never allowed to return to play the same day. Proper evaluation by a medical professional is required prior to his or her return. Coming back too early may result in another concussion, placing the child at risk for irreversible brain damage or even sudden death.

**Role of Proper Nutrition** – Small changes can make a big difference in your family's nutrition. Start by limiting fast food and soda pop consumption. Fast food is loaded with high calories and could be replaced with a packed lunch you and your child choose together. Pop contains a large amount of sugar, and caffeinated pop can dehydrate a child. Replace pop with water, which serves an important role in keeping your athlete hydrated.

**Initial Treatment of Sports Injuries: PRICE** – When an injury happens, quick action may prevent the injury from becoming worse. PRICE it to help speed up the recovery process.

**(P) PROTECTION** – Protect the injured area with splints, braces or crutches, if needed. Help the athlete to a safe area if they can be moved. If they can't safely be moved (i.e., neck pain), call for EMS.

**(R) REST** – As soon as pain occurs, stop the activity immediately. Stay off the injured area as much as possible so the tissues can begin to heal themselves. Resting the area right away will often allow an athlete to return much sooner.

**(I) ICE** – Ice the injured body part for the first 24-72 hours – this will decrease swelling. Crushed or cubed ice works best, as it will conform well to the body part.

**(C) COMPRESSION** – Compression helps limit swelling, which may otherwise delay healing time. Wrap a compression dressing (like an Ace bandage) snugly but not to the point where the extremity feels cold, tingly or numb.

**(E) ELEVATION** – Elevate the injured area on pillows for the first 24-72 hours. Ideally, the athlete should lay flat and prop up the extremity. This keeps it above the level of the heart, helping the swelling decrease faster.

#### **How to Reach Us**

**For more information**, call: 216-844-3595.

**To schedule an appointment**, call: 216-UH4-KIDS (844-5437) or request an appointment online at [RainbowBabies.org](http://RainbowBabies.org).

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