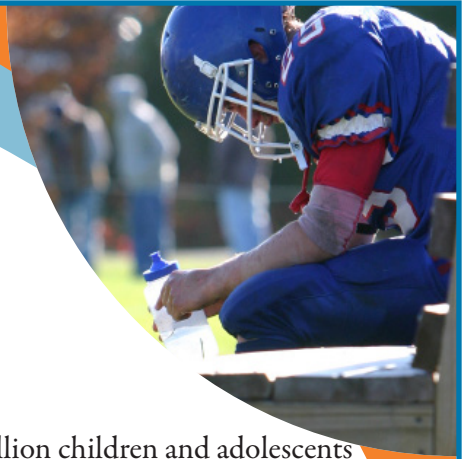




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## Sports and Recreational Safety



**Overview:** According to the National Institutes of Health, an estimated 38 million children and adolescents play in organized sports and each year more than 3.5 million children ages 14 years and under receive medical treatment for sports injuries. Approximately two out of three sports-related injuries treated in emergency departments occurs to children. While it is recommended that children participate in sports and recreational activities, it is crucial to recognize the associated injury risks, and learn ways to help lower their occurrence.

### Types of Sports Injuries

- The most common types of sport-related injuries in children are sprains (mostly ankle), muscle strains, bone or growth plate injuries and heat-related illness.
- The rate and severity of sports-related injury increases with a child's age.
- Although rare, brain injury is the leading cause of sports-related death. An estimated 2 out of 5 traumatic brain injuries among children are associated with participation in sports and recreational activities.

**Concussions:** A brain injury, which occurs when a bump, blow or jolt to the head changes the way the brain normally works.

- About 90 percent of concussions occur without the loss of consciousness.
- From 2001 to 2005, more than 502,000 emergency visits were due to concussions in children between the ages of 8 and 19 years. Approximately half of these visits were a result of concussions related to organized sports.
- Concussive signs and symptoms include confusion, inability to recall events before or after injury, headache, nausea, behavior or personality changes, forgetfulness, irritability, dizziness, sluggishness, and sensitivity to noise and light.
- Approximately half of all “second impact syndrome” incidents – brain injury caused from a premature return to play after suffering the initial concussion – result in death.

**Overuse Injuries:** Repetitive strain, or “micro-trauma,” to the tendons, bones, and joints.

- Common overuse injuries include tennis elbow, swimmer's shoulder, little league elbow and stress fractures.
- As more children are becoming involved in organized sports, the number of overuse injuries is growing. Experts say up to half of injuries seen in pediatric sports medicine are related to overuse injuries.
- Risks of overuse injuries are more severe in children than adults as growing bones of a young athlete cannot handle as much stress.
- Overuse injury can be difficult to diagnose and treat because these injuries are usually subtle and occur over time.

**Dehydration/Heat-Related Illness:** The excessive loss of fluids from the body, when the total amount of fluids lost through sweating, urination, diarrhea, and/or vomiting is greater than the fluids taken in. Sweating is the main cause of water loss, leading to dehydration.

- Children tend to have lower sweat rates than adults, which makes it especially important that young athletes hydrate before, during and after play.
- Dehydration can result in a loss of consciousness and other serious medical conditions.
- Children are at risk for dehydration even in the fall and winter months—cold temperatures can reduce the sensation of thirst causing athletes to not drink enough, leading to dehydration.

**Pre-Participation Physical Evaluations (PPE):** A PPE can help identify underlying conditions a young athlete may have and help parents, coaches and doctors make more informed decisions about physical activity and competitive play.

- Every young athlete should have a PPE, performed each year by his or her pediatrician or a health care professional.

### **Action Steps to Prevent Sports Injuries and Emergencies**

- Parents/caregivers need to talk to their child’s doctor and ask to perform a full pre-participation physical evaluation.
- Youth coaches should be trained in first aid and CPR, and should have a plan for responding to emergencies.
- Access and consistent use of appropriate safety equipment is key—whether it’s in practice or competitive play. Keep in mind that about 60 percent of organized sports-related injuries occur during practices.
- Drinking fluids (such as water) 30 minutes before physical activity begins and mandatory fluid breaks throughout playing can help prevent dehydration. Try to have the child drink every 15-20 minutes during physical activity.
- Warming up and stretching before play can help prevent sports-related injuries (such as muscle tears or sprains) by stretching and releasing any muscle tension.
- Learn the signs and symptoms of a concussion. If you think your child has suffered a concussion, remove them from play immediately and seek medical attention. A health care professional will be able to decide how serious the concussion is and when it is appropriate to return to play.
- Athletes should have at least two to three months off per year to let injuries heal, refresh the mind and work on recovery strength and conditioning.