

Preventing Injury in Young Athletes

Youth sporting events can mean fun for the whole family but, every year, sports-related injuries sideline thousands of young players. According to the Centers for Disease Control and Prevention Injury Center, “More than 2.6 million children 0-19 years old are treated in the emergency department each year for sports and recreation-related injuries.” Typically, injuries in young athletes are either sudden and acute or a result of overuse.

In 2013, the Consumer Product Safety Commission (CPSC) reported that:

- 881,700 football-related injuries occurred in kids 5-18 years old.
- 434,000 children were treated for soccer injuries.
- 99,884 were treated for cheerleading-related injuries.
- More than 94,000 were treated for volleyball related injuries.

Acute Injuries

Acute injuries are those that occur suddenly, such as a fall or colliding with another player. These types of injuries include:

- Contusions (bruises).
- Sprains, which happen when a ligament is partially or completely torn.
- Strains, which happen with a muscle or tendon is partially or completely torn.
- Bone fractures.

Growth Plate Injuries

Because children are still growing they are more prone to injuries involving muscles, tendons, and growth plates. Growth plates help determine the length and shape of adult bones, and do not ossify (harden) until a child stops growing. Because they are not yet solid, growth plates are vulnerable to fracturing. Growth plate injuries can result in disturbances to growth or lead to bone deformity. They are most common in contact sports like football or basketball or in high impact sports like gymnastics.

Catastrophic Injuries

All sports pose some risk of injury, but certain activities have a higher incidence of severe head and neck injuries that can cause damage to the brain and spinal cord. These higher-risk sports include ice hockey, wrestling, football, swimming, soccer, pole vaulting, cheerleading, and gymnastics. It is important for coaches, parents, and athletes to be aware of the guidelines and regulations developed for each sport to prevent head and neck injury.

Concussions

Concussions are mild traumatic brain injuries that are caused by a blow to the head or body that results in the brain moving rapidly back and forth inside the skull. Some sports like football, ice hockey, and soccer, have a higher rate of concussions, but they can occur in any type of athletic event. In 2010, the American Academy of Pediatrics (AAP) recommended that young athletes with concussions be evaluated and cleared by a doctor before returning to sports.

The signs and symptoms of a concussion may not be obvious at first. People may look fine even though they are acting or feeling differently. It sometimes takes days or even months before a person resumes their normal activities. The CDC places concussion symptoms into four categories:

Thinking/Remembering	Physical	Emotional/Mood	Sleep
Difficulty thinking clearly	-Headache -Fuzzy or blurry vision	Irritability	Sleeping more than usual
Feeling slowed down	Nausea or vomiting (early on)	Sadness	Sleep less than usual
Difficulty concentrating	-Sensitivity to noise or light -Balance problems	More emotional	Trouble falling asleep
Difficulty remembering new information	Feeling tired, having no energy	Nervousness or anxiety	

Source: www.cdc.gov

Coaches or parents should call for help right away if a child exhibits any of these symptoms after a blow:

- Headache that gets worse and does not go away.
- Weakness, numbness, or decreased coordination.
- Repeated vomiting or nausea.
- Slurred speech.
- Look very drowsy or cannot wake up.
- Have one pupil larger than the other.
- Have convulsions or seizures.
- Cannot recognize people or places.
- Are getting more and more confused, restless, or agitated.
- Have unusual behavior.
- Lose consciousness.

Overuse Injuries

Some injuries happen over time when a motion or activity is repeated often without giving the body a chance to heal before the next game or practice. “Overuse injuries are the most common types of sports-related injuries,” says American Academy of Orthopaedic Surgeons (AAOS) spokesperson Michael S. George, MD, who specializes in sports medicine. “Often times the initial aches and pains felt during the progression of an injury are overlooked by young athletes. It’s essential to teach them about the importance of informing a coach or parent about pain because an undiagnosed injury can become more severe in the long run.”

Like acute wounds, overuse injuries also occur to muscles, ligaments, tendons, bones, and growth plates. Examples of overuse injuries include:

- Elbow injuries from pitching in baseball.
- Shoulder injuries from swimming.
- Wrist and elbow injuries from gymnastics and cheerleading.
- Stress fractures, often in the shinbones or feet, that occur when growing bones are weakened by a repeated activity.

Ways to Prevent Injury

- **Gear up.** When children are active in sports and recreation, make sure they use the right protective gear for their activity, such as helmets, mouth guards, wrist guards, cleats, and knee or elbow pads.
- **Use the right stuff.** Be sure that sports protective equipment is in good condition, fits well and is worn correctly at all times—for example, avoid missing or broken buckles or compressed or worn padding. Poorly fitting equipment may be uncomfortable and may not offer the best protection.
- **Get an action plan in place.** Be sure your child’s sports program or school has an action plan that includes information on how to teach athletes ways to lower their chances of getting a concussion and other injuries. Get more concussion safety tips.
- **Pay attention to temperature.** Allow time for child athletes to gradually adjust to hot or humid environments to prevent heat-related injuries or illness. Parents and coaches should pay close attention to make sure that players are hydrated and appropriately dressed.
- **Be a good model.** Communicate positive safety messages and serve as a model of safe behavior, including wearing a helmet and following the rules. Do not pressure your child to overtrain.

Sources:

American Academy of Pediatrics (AAP): www.aap.org

American Association of Orthopedic Surgeons: www.aaos.org

Centers for Disease Control and Prevention (CDC) Injury Center: www.cdc.gov