

# CHILDREN AND SPORTS INJURIES-IMPLICATIONS FOR PREVENTION

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## ABSTRACT

*This paper gives an overview of the most common sports injuries that affect children and implications for the prevention of such injuries. The paper explains soft tissue injuries that are the most common injuries in children, the causes of the injuries and how to protect children against sports injuries. Based on the factors above, some conclusions are thereafter given at the end of this write up.*

**KEY WORDS:** *Children, Sports Injuries, Prevention*

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## INTRODUCTION

If you are a parent, it is likely that your child will sustain an injury playing an organized, community sport. While there is a certain amount of risk involved in participatory sports, parents, coaches, and program supervisors share the ultimate responsibility for providing maximum safety in a healthy playing climate. A balanced, well-managed sports environment provides a fertile ground for the child's natural growth and development, physically, emotionally, and socially.

But even in the safest of settings, accidents happen, and children may get hurt. Knowing the types of injuries commonly sustained, as well as why and how children get hurt, will enlighten parents, coaches, and other responsible party to seek preventive safety measures, and help reduce the incidence of injury.

## What Are The Most Common Sports Injuries To Children?

Soft tissue injuries including Sprains, Strains, Contusions, abrasions, and lacerations make up 60 percent of all sports injuries to children. Surprisingly,

fractures account for less than 15 percent of injuries(4).

**Contusion:** A contusion is an injury to the soft tissue often produced by a blunt force such as a kick or hit.

**Strain:** This is an injury to a muscle or tendon and is often caused by overuse, force or overstretching. It is the tearing of a muscle or tendon.

**Blister:** It is a collection of fluid below or within the epidermis layer caused by continuous rubbing over the surface of the skin.

**Laceration:** This is where the flesh is irregularly torn.

**Incision:** This is where the skin is cut by a sharp object.

**Cramp:** A cramp is a painful involuntary contraction of the skeletal muscle (1).

As a general rule, the younger the child, the less severe the injury. However, it is also true that the more rapidly children grow, the more susceptible they are to injury at bone growth sites (Knee, Heel, Shoulder, Elbow, Hip, and Back).

Growth occurs at the upper and lower end of the long bones of the skeleton. One-half to one inch below the end of the bones is the growth center, where cartilage-like cells will harden and eventually make-up bone mass. It is this vulnerable area that is the weakest part of the skeleton, and most prone to injury, especially in the young adolescent. If growth site injuries are not diagnosed accurately and treated properly, they can lead to chronic pain, traumatic arthritis, and in the worse case scenario-deformity and stunted bony growth (1,2, 3).

### **What Are The Causes Of Sports Injuries In Children?**

Given the spontaneous nature of children, their limited degree of agility, and the "controlled chaos" of children's play, it is not surprising that **falls, twists, and collisions**, will inevitably result in strains and sprains, bruises and abrasions. But there are more sports that yield specific injuries.

- **Soccer** is the most popular sport in the world, and the fastest growing team sport (5). Soccer players who are hit by the ball, fall, and come into contact with other players, often suffer bruises, knee, ankle, and shin injuries.

- **Gymnastics** is a growing trend in the World, with training starting as early as age. Although the risk of injury seems proportionate to the skill of the athlete, the greatest number of injuries occur during floor exercises and tumbling, with other injuries resulting from upsets on the balance

beam and uneven parallel bars. The most common injuries to gymnasts are spinal injuries.

- **Playground equipment**, although not associated with a sport, is responsible for a high number of injuries in schools and homes. Three quarters of all playground injuries happen on swings and monkey bars. Injuries on slides and seesaw account for the remaining fourth.

- Children who complain of elbow pain are likely to be suffering from an overuse syndrome, which results in pain, stiffness, and reduced range of motion. A characteristic complaint of single-sport athletes, particularly baseball players, this injury is directly related to the frequency and intensity of the pitch. Swimmers and skaters may also be at risk for developing an overuse syndrome because of repetitive stress on particular joints.

- **Osgood-Schlatter's Disease** is not a disease process, but a mechanical injury of the knee at the junction of the kneecap tendon and the tibia. It occurs in children and young adolescents who have most likely experienced microtrauma or overuse from repetitive kneeling, running, and jumping activities. Children rarely complain about back pain, but if it persists, restricts activities, or interrupts sleep, it is a concern that should be considered seriously. After a chiropractor has ruled out serious disease or systemic cause or pediatric back pain, you may find that the child's complaints are due to soft tissue injuries, overuse syndromes or postural irregularities.

### **How Can I Protect My Child Against Sports Injuries?**

Although parents may not be able to soften the blow from an athletic injury they can minimize serious injury by taking some basic preventative measures.

- Determine the child's physical maturation level and match the child's size

with an appropriate sport. Most competitive children's sports are organized according to chronological age rather than physical skill or maturation. Slower maturing children are often at greater risk of injury because they are competing with peers who may be larger and physically more developed.

- De-emphasize winning. When it comes to sports, children primarily want to have fun, secondarily they may want to win. Parents who emphasize winning, place undue stress on children and rob them of the joy of simply participating. A child who is stressed, who is trying to meet parents' and coaches' unrealistic expectations, is more susceptible to injury than a child who enters the playing arena with the confidence that comes from positive and encouraging adult attitudes.
- Seek professional advice. Given the fact that children will get hurt in play, it is critical that parents use good judgement in treating complaints about pain. What may act like a simple sprain may actually be growth plate injury that demands professional diagnosis on the extent of the injury and how to proceed with treatment. Check to see if your child's organized athletic team has a chiropractor, skilled in the handling of sports injuries, affiliated with it.
- Wearing protective gear during sports
- Using proper equipment (1,2,3,4).

## CONCLUSION

Sports involvement is one way children can implement fitness as an integral component of their lifestyle. To be successful, the

elements of the child/sports equation must add up to fun, fitness and safety. Parent, coaches, program sponsors and chiropractors must actively help to create an esteem-building experience that will be memorable for the child long past the moment of play.

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