



MANAGING INJURIES IN CHILDREN

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Introduction

Sport plays an important role in the health and development of children. It helps build fitness, confidence, coordination, and social skills. However, as children become more active in organised sport, injuries can sometimes occur.

Managing sports injuries in children requires a different approach from treating adults. Children are not simply small adults. Their bones, muscles, and joints are still developing, and their injuries often behave differently from those seen in mature athletes.

Understanding these differences is important to ensure children recover properly and return safely to sport.

The importance of early assessment

Children should not simply “push through” ongoing pain during sport. Persistent pain can indicate that the body is under too much stress.

Early assessment allows appropriate treatment to begin before the problem becomes more serious.

A physiotherapy assessment will usually include:

- *Understanding how the injury occurred*
- *Reviewing the child’s sporting activities and training load*
- *Examining movement, strength, and flexibility*
- *Assessing growth-related factors*

This information helps identify the cause of the injury and guides treatment decisions.

Sometimes additional imaging such as X-ray or ultrasound may be recommended if a more serious injury is suspected.

Why children are different from adults?

One of the key differences between children and adults is that children are still growing. Growth plates, also known as physes, are areas of developing cartilage located near the ends of long bones. These areas allow bones to lengthen during growth. Growth plates are weaker than the surrounding bone and ligaments. This means that when a child experiences a force or injury, the growth plate may be injured rather than the ligament or tendon. In adults the opposite is often true. For example, where an adult might tear a ligament in the ankle or knee, a child may instead develop a growth plate injury. Because of this, injuries in children need careful assessment to ensure the correct diagnosis is made. Children's bones also heal differently. In many cases they heal faster than adult bones, but this healing must occur in the correct position to avoid problems with future growth.

Many injuries seen in young athletes are related to overuse. These injuries develop gradually when the body is exposed to repeated stress without enough recovery.

Common examples include:

- Heel pain (Sever's disease)
- Knee pain related to growth (Osgood-Schlatter disease)
 - Patellofemoral knee pain
 - Tendon irritation
- Stress reactions in bone

These conditions often occur during growth spurts, when bones grow rapidly but muscles and tendons may temporarily become tight.

Children may also experience acute injuries during sport, such as sprains, fractures, or muscle strains.

Because symptoms may sometimes appear mild at first, it is important that persistent pain in young athletes is assessed properly.

Treatment and rehabilitation

Treatment for sports injuries in children usually focuses on reducing stress on the injured area while maintaining general activity.

Complete rest from all activity is rarely necessary. Instead, we often modify activity levels while rehabilitation takes place.

Treatment may include:

- *Education about the injury*
- *Temporary changes to training or sport participation*
- *Exercises to improve strength and control*
- *Stretching to address muscle tightness*
- *Gradual return-to-sport programs*

The goal is not simply to remove pain but to address the underlying factors that contributed to the injury.

For example, some injuries occur because of rapid increases in training, poor movement control, or muscle imbalance.

Addressing these factors helps reduce the risk of future injuries.

The role of strength and conditioning

As children grow older and become more involved in sport, structured strengthening and conditioning become increasingly important.

Strength training, when properly supervised, is safe for children and can improve performance and reduce injury risk.

Rehabilitation programs may focus on:

- *Strength development*
- *Balance and coordination*
- *Running and jumping technique*
- *Core stability*
- *Gradual return to sport-specific movements*

Developing good movement habits early can provide long-term benefits for young athletes.

Managing training loads

One of the most common contributors to injury in young athletes is excessive training load.

Many children now participate in multiple teams, competitions, and training sessions each week. Without adequate rest and recovery, the risk of overuse injuries increases.

Some helpful guidelines include:

- *Gradually increasing training loads rather than sudden changes*
- *Ensuring children have rest days during the week*
- *Avoiding early specialisation in a single sport at a young age*
- *Encouraging participation in a variety of activities*

A balanced approach to sport helps children stay healthy and enjoy long-term participation.

Supporting a safe return to sport

Returning to sport too quickly can increase the risk of re-injury.

Rehabilitation programs should gradually progress from basic exercises to sport-specific activities.

Before returning fully to sport, children should generally be able to:

- *Move without pain*
- *Demonstrate good strength and control*
- *Complete running, jumping, or sport-specific tasks safely*

Parents, coaches, and healthcare professionals all play an important role in supporting this process.



Helping children stay active

Sport should remain a positive experience for children. Injuries can be frustrating, but with appropriate care most young athletes recover well.

Early assessment, structured rehabilitation, and careful management of training loads are key to successful recovery.

Most importantly, remembering that children are not simply small adults allows healthcare providers to tailor treatment to their unique needs.

With the right approach, children can return to sport safely and continue enjoying the many benefits of an active lifestyle.

