



When Children's HealthSM Children's Medical Center opened its Plano campus in 2008, it became the nation's first pediatric provider to offer two full-service, stand-alone hospitals.

Since then, Children's Medical Center in Plano has treated more than 100,000 children a year, offering families north of Dallas convenient access to the medical care they need most.

It's the highest level of expertise and compassion, all connected to Children's Medical Center in Dallas for an even more comprehensive range of services.

So if your athlete needs orthopedic care, Children's Medical Center in Plano is ready to help.

- Full-service pediatric hospital with expertise in nearly 30 different specialties – from acute hospital care and outpatient services to diagnostics, therapy and education
- 24/7 pediatric Emergency Department
- State-of-the-art operating rooms and a full-service laboratory, pharmacy and imaging services

Children's HealthSM Children's Medical Center Plano

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More than 775,000 children, ages 14 and under, are treated in hospital emergency rooms for sports-related injuries each year. This reference guide provides information on the most common tennis injuries requiring treatment.

SHOULDER INJURIES

Tennis players can suffer **overuse injuries** to their shoulders due to repeated serves and overhead shots while holding a racquet. Overuse injuries tend to occur when tissue such as muscle, tendon, bone, or cartilage is damaged by repetitive motion activities. Without adequate time for recovery, the tissue cannot adapt to the demands placed on it and further damage is likely.

The damage caused by repetitive stress leads to tissue inflammation that causes pain. Symptoms of overuse injuries, also considered **chronic sports injuries**, include:

- Pain when performing the activity or sport
- Intermittent swelling
- Decreasing performance
- Dull pain even at rest

If the symptoms persist, take your child to see a pediatrician or a pediatric sports medicine physician. In each consecutive season, repetitive maneuvers by certain body parts can lead to fatigue and long-term damage.

ELBOW INJURIES

Lateral epicondylitis or **tennis elbow** is a common injury in tennis players, and causes tenderness and pain in the outer side of the elbow. This condition is caused by overuse of the muscles to extend the wrist, while hitting a backhand, for example. When these muscles are used repeatedly, they pull at the bony structure on the outside of the elbow. Athletes with tennis elbow may feel:

- Pain on the outer side of the elbow
- Pain with raising or straightening the wrist or hand
- Pain when grabbing or lifting an object
- Pain when grabbing and twisting (such as while shaking hands)
- Pain that shoots up or down the arm from the elbow

Elbow pain should not be ignored. Rest is recommended to allow for sufficient recovery. Ice and stretching of the muscles of the forearm should be used to treat tennis elbow. If symptoms persist after two weeks of forced rest, a visit to a pediatric orthopedic surgeon or sports medicine specialist is recommended. Delayed treatment of these problems can make a significant impact on future participation in racquet sports.

DEHYDRATION

Tennis players are at risk of **dehydration** if they don't get enough fluid to replace what is lost through the skin as sweat and through the lungs while breathing. It is important to drink plenty of fluids before, during and after a workout or match. An athlete's performance can be impacted by even mild dehydration.

Athletes should take a water bottle to school and drink between classes and during breaks so that they are well-hydrated before their workout. It is also important for tennis players to drink plenty of water during the week leading up to a tournament when multiple matches can be played in consecutive days.

In addition:

- Water should be readily available when working out
- Athletes should drink often - ideally every 15 to 30 minutes
- Sports drinks are recommended for activities lasting longer than one hour.

Early signs of dehydration can be non-specific and include:

- Fatigue
- Decreased athletic performance
- Headache
- Thirst
- Apathy
- Irritability
- Nausea

Signs of advanced dehydration include:

- Dark urine
- Dry lips and mouth
- Disorientation
- Decrease in reaction time

Athletes with any of these signs should rest and drink water or sports drinks. If athletes don't improve, feels dizzy or faint, or has not had much urine output, they should be seen by a doctor. Seek emergency treatment if the athlete is disoriented, unable to drink or has pale skin.

ANKLE INJURIES

The most common injury in sports is a **lateral ankle sprain**. In tennis, this injury is caused by rolling the ankle over the outside of the foot. This often occurs during a sudden change of direction or when stepping on a loose ball. A lateral ankle sprain causes damage to the ligaments just below the bone on the outside of the ankle. In some cases a "pop" is felt or heard by the athlete.

Treatment recommendations vary with the severity of the injury:

- Mild sprains require rest but not necessarily medical treatment (follow the PRICE formula plan, printed below)
- Persistent swelling, pain or any deformity should be seen by a physician.

KNEE INJURIES

Knee pain that comes on slowly is common in tennis and should not be overlooked. Some examples of knee pain in tennis players are:

- **Patello-femoral Pain Syndrome (Runner's Knee)** – pain in the front of the knee related to muscle and tissue stress around the knee cap that can be addressed with proper training in physical therapy.
- **Osgood-Sclatter Disease** –stress-related inflammation in a growth center at the front of the knee.
- **Osteochondritis Dissecans** –a defect in the knee's cartilage that can become evident over time during repetitive activity such as jumping.

Athletes should see a pediatrician or pediatric sports medicine physician if pain and or swelling persist after PRICE treatment. In addition:

- In younger athletes, bone maturity helps to determine the treatment plan. Injury to an open growth plate requires special consideration by a pediatric orthopedic specialist.
- Training in proper jumping and landing technique may help to prevent this injury.

BUMPS, BRUISES, TWISTS & MUSCLE STRAINS

These can affect all areas of the body. Recommended treatment is the **PRICE** formula:

Protect the area with a sling or crutches, if necessary.

Rest the injured area.

Ice the injury for 20 minutes at a time. Do not apply the ice directly to the skin.

Compress the injured area with a wrap. Do not pull tightly, as this can cut off circulation.

Elevate the injured area above the heart, if possible.

Athletes should see a pediatrician or pediatric sports medicine physician if any of these symptoms are present:

- Deformity
- Limping that lasts more than 48 hours
- Soft tissue swelling that gets worse the next day despite ice and over-the-counter anti-inflammatory medication such as Motrin®
- Effusion – mobile soft tissue swelling on both sides of a joint, often the knee or ankle
- Pain that returns quickly with activity at the next session or is not gone after two weeks of forced rest.

SPORTS SAFETY

Children ages 5 to 14 make up almost 40 % of all sports injuries treated in hospital emergency rooms. Injuries in children are best handled by pediatric specialists trained in treating skeletally immature patients.

How to Protect Your Child

Taking the following steps can reduce your child's risk of getting hurt. As a parent, you should:

- Schedule your child for an annual physical before playing sports.
- Monitor play and practice and encourage players to abide by the rules.
- Have a first aid kit handy and an emergency action plan in place. Appropriate shelter should also be close by in case of a storm with lightning.
- Keep sports fun! Remember to be positive and don't push kids to perform beyond their abilities.

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For more sports safety information visit
www.childrens.com/kohls