

Safety Smart

Tennis Safety

Millions of children are playing tennis. The number of children participating has grown substantially over the past ten years. This has led to an increase in tennis injury to the eyes, neck, back, shoulder, elbow, ankle, wrist and fingers.

Preventative Measures

TENNIS-RELATED INJURY STATISTICS

- Each year, more than 4,700 tennis-related injuries to youths under age 15 are treated in hospital emergency rooms.
- The total cost of tennis-related injuries was more than \$21 million in 1996. This includes medical, legal, insurance, and disability costs, as well as other expenses.

PREVENTATIVE MEASURES FOR TENNIS-RELATED INJURY

- Your child should warm-up for about five to ten minutes before playing. This warm-up should include a light jog around the court or using the jump rope.
- After warming up, your child should perform five to ten minutes of simple stretching exercises for the shoulder, low back, legs and calves to help reduce injury. Stretches should be done slowly and held for about 10 to 15 seconds.
- Make sure your child drinks plenty of fluids before, during, and after play. This helps avoid the possibility of cramping and stiffness.
- Overuse injuries to the shoulders and elbow are common in tennis. Proper strengthening exercises can help prevent these injuries as well as enhance performance.
- Tennis requires your child to perform activities of sudden starting and stopping that may lead to ankle injury. To prevent this injury, tennis shoes with good support should be worn. Also, running short sprints on the court, whether from side to side or baseline to net, improves ankle strength and conditioning.
- To prevent blisters, have your child dry the racket handle by dabbing it with sawdust or powdered chalk.
- Avoid playing on tennis courts with no "give" These types of courts are usually made of asphalt, cement, or synthetic courts. The best types of courts are on clay or

fast-dry surfaces.

- Remember, the key to prevention of tennis injury is proper conditioning.

Elbow Pain

ELBOW PAIN

- Elbow pain is a common condition on the lateral of the elbow which may limit your child's ability to play tennis or other sports.
- Symptoms that your child may have include pain and tenderness on the outside of the elbow experienced when hitting a backhand or with gripping the racket with resisted movements at the wrist.

CAUSES OF ELBOW PAIN

- Overuse of the elbow by playing too long or too frequently.
- Weakness and inflexibility in the muscles of the forearm.
- Poor stroke mechanics with the backhand by leading the stroke with your elbow. This causes higher stress to the outside elbow -- causing injury.
- Improper grip size on your child's racket.
- Incorrect racket string tension -- when a racket is strung too highly, it leads to increased stress on the extensor muscles of the elbow.

ELBOW PAIN PREVENTION

- Strength is an important aspect of preventing elbow pain. Many children have loose elbows that need strength conditioning.
- Encourage gradual resistance and stretching exercises for the wrist.
- Make sure your child is starting the backhand swing from the shoulder.
- Ensure that his/her arm is bent when serving the ball -- this serves as a shock absorber for the elbow.
- Make sure that your child does not hit excessive topspin on the ball when hitting groundstrokes by rolling over the top of the ball using the wrist and elbow.

Shoulder Injury

WHAT IS THE ROTATOR CUFF?

- The rotator cuff is a group of flat tendons which fuse together and surround the front, back, and top of the shoulder joint like a cuff on a shirt sleeve. When the muscles contract, they pull on the rotator cuff tendon, causing the shoulder to rotate upward, inward, or outward, hence the name "rotator cuff."

HOW DOES THE SHOULDER BECOME INJURED?

- Shoulder injuries occur as a result of deficits in muscular strength, balance and of muscular inflexibility.
- The actual injury can occur in two ways:
 - children may weaken the shoulder by placing extra strain on it playing too much tennis too often. And, after playing extensively, they may not give their shoulder time to rest.
 - Sometimes children may attempt to hit the ball too hard, especially on their serve. This causes sudden movement to the shoulder which can put excessive strain on the shoulder - causing injury.

HOW CAN I PREVENT THIS FROM HAPPENING TO MY CHILD?

- Preventive measures include ensuring that your child stretches before exercising to maintain good flexibility and avoiding extreme strain to the shoulder.

Ankle Injury

COMMON FOOT AND ANKLE INJURIES

- *Ankle Sprains* - This is the most common of all tennis injuries. They usually occur when the foot turns inward, causing swelling and pain on the outside of the ankle. Treatment: Get off the ankle, apply ice to reduce swelling, wrap the ankle in a compression bandage, and elevate the ankle. If the ankle sprain does not improve within 3-5 days, call your physician.
- *Sever's disease* - This is when stress imposed on the bottom of the foot causes pain in the heel of the foot. Treatment: If heel pain persists, consider investing in better shoes for your child, or consult your physician for other remedies.
- *Tennis Toe* - This occurs when blood accumulates under the toenail. It can be traced to improper shoes worn on the court. Treatment: blood under the child's toenail can be drained by your physician for quickest recovery. But, if there is only a slight buildup of blood, cool compresses and icing the toe will provide some relief.

PREVENTATIVE MEASURES FOR FOOT AND ANKLE INJURY

- Avoid letting your child play on surfaces with no "give," such as cement, asphalt, or other synthetic courts. Clay and fast-dry courts are safest to the foot and ankle.
- Proper shoes are crucial to injury prevention. Shoes should be specifically designed for tennis. Proper tennis shoes "give" enough to allow for side-to-side sliding.

- Heels should be snug-fitting to prevent slipping from side-to-side. And, both heel and toe areas should have adequate cushioning.
- Tennis shoes should be shopped for in the afternoon, when the feet swell slightly. Make sure your child tries on several pairs with tennis socks. Make sure his/her ankles do not roll around in the shoe.

Extreme Heat

TENNIS IN SEVERE HEAT

- When your child plays tennis in extremely hot conditions, more and more body heat is produced which cannot be rid easily - thus their internal core body temperature rises.
- Tennis in hot conditions also increases blood flow to the skin and sweating occurs. Sweating is the most powerful heat dissipation mechanism, but sweat must evaporate to have any beneficial effect, which is difficult in extreme heat.
- Most tennis players collapse when their body temperature is in the range of 101 to 104 degrees.
- The main injuries that occur when playing in extreme heat conditions are heat stroke, vomiting, and severe cramping. Symptoms of these injuries may be inability of your child to move quickly on the court, dizziness, poor concentration, and appearance of lack of motivation.

LESSONS TO AVOID HEAT-RELATED INJURIES

- Your child should attempt to maintain top aerobic and physical condition throughout the entire year. Highly-trained individuals are most apt to attaining above average heat tolerance.
- Your child should maintain an adequate and steady intake of water or other fluids before, during, and after play. He or she should drink on a regular schedule, not just when thirsty.
- Children should limit their exposure to high heat levels as much as possible. For instance, the pre-match warm-up may be shortened.
- During a changeover, your child should put an iced towel on the neck and drink plenty more water. In extreme conditions, placing their arms in ice water significantly lowers internal core temperatures.
- Takin a cool bath immediately before and after playing in severe heat can substantially reduce risk of your child suffering from heat injury.
- Never force your child to play in extreme heat is he does not want to.