



## TENNIS INJURIES

**T**ennis, played worldwide, is one of the most popular racket sports. A high number of tournaments for competitive tennis players may lead to overuse injuries, such as “tennis elbow” or wrist injuries. For noncompetitive tennis players, improper or inadequate physical and technique training may be the cause of overuse injuries. Although overuse injuries make up a large chunk of tennis injuries, the good news is that such injuries can be prevented with some changes to technique and training routines.

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### What are common injuries and treatments?

Two-thirds of tennis injuries are due to overuse and the other one-third is due to a traumatic injury or acute event. Overuse injuries most often affect the shoulders, wrists, and elbows.

#### Tennis Elbow

The injury most heard about is “tennis elbow,” which is an overuse of the muscles that extend the wrist or bend it backwards. It is also the muscle most used when the tennis ball impacts the racket. Proper strengthening of this muscle and other muscles around it, along with a regular warm-up routine, will help decrease the likelihood of experiencing tennis elbow. Paying attention to technical components such as grip size and proper technique can also help prevent this condition.

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### Shoulder Injuries

Shoulder overuse injuries are usually due to poor conditioning and strength of the rotator cuff muscles. The rotator cuff helps to position the shoulder properly in the shoulder socket. When it is fatigued or weak, there is some increased “play” of the ball in the socket, irritating the tissues. The tendon or the bursa can become inflamed and hurt. This usually produces pain with overhead motions such as serving. If the pain persists, it can interfere with sleep and other daily activities.

Flexing and extending the wrist against light resistance with an exercise band three to four times a week may help lessen pain and decrease injuries.

### Stress Fractures

Twenty percent of junior players suffer stress fractures, compared to just 7.5 percent of professional players. Stress fractures are the result of increasing training too rapidly. When the muscles tire, more stress is placed on the bone. If this occurs too quickly, the bone cannot adjust rapidly enough to accommodate the stress and it breaks. These “breaks” are usually cracks in the bone that cause pain rather than an actual break or displacement of the bone. Stress fractures can occur in the leg (tibia or fibula) or in the foot (the navicular or the metatarsals).

These injuries are preventable with proper strength and endurance training prior to extensive tennis playing. Appropriate footwear is also critical to preventing stress fractures.

### Muscle Strains

Muscle strains usually occur from quick, sudden moves. A good warm-up followed by proper stretching can help diminish muscle strains. The warm-up should include a slow jog, jumping jacks, or riding a bike at low intensity.

Proper stretching should be slow and deliberate. Do not bounce to stretch; hold the stretch 30 seconds or more. The best stretches are moving stretches, such as swinging your leg as far forward and backward or swinging your arms in circles and across your body. Proper stretching should last at least five minutes.

If you have any concerns about an injury or how to prevent future injuries speak with a sports medicine professional or athletic trainer. The athlete should return to play only when clearance is granted by a health care professional.

### Expert Consultant

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### References

Maquirriain J, Ghisi JP. The incidence and distribution of stress fractures in elite tennis players. *Br J Sports Med.* 2006;40(5):454-459. doi:10.1136/bjism.2005.023465.

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