

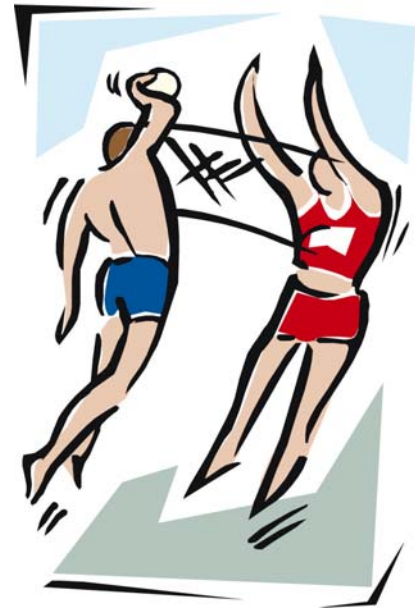
OPTIMAL HEALTH UNIVERSITY™

Presented by Dr. Wayne Terai

Preventing Volleyball Injuries

Volleyball is both a popular sport — the International Volleyball Federation estimates more than 800 million participants world-wide — and a relatively safe one. But although it is safer than many other sports, volleyball is not injury-free. According to the Consumer Safety Product Commission, sprains and strains account for two-thirds or more of volleyball injuries — with the ankle, knee and shoulder most commonly afflicted.

There are winning ways to prevent volleyball injuries, including chiropractic care with Dr. Terai, which helps volleyball players prevent and quickly recover from injuries. Regular chiropractic care may also help maximize performance. That's why many professional and Olympic volleyball players rely on chiropractic. In fact, doctors of chiropractic play an integral role in caring for players on the Association of Volleyball Professionals tour.



Ankle Injuries

Ankles are especially vulnerable during volleyball. The combination of jumping in close proximity to other players and swift changes of direction while running leads to a high risk of ankle sprain. A 2007 study investigated injuries among NCAA women's volleyball players over the course of 16 years. The study found that "the

lower extremity accounted for more than 55% of all game and practice injuries, with ankle ligament sprains representing 44.1% of game injuries and 29.4% of practice injuries." (*J Athl Train* 2007;42:295-302.)

Another recent study on volleyball injuries followed 486 players from the second and third Dutch national volleyball divisions during a full season.

The study concludes: "Ankle sprain is the most common injury in volleyball, accounting for 41% of all volleyball related injuries. Previous injury seems to be an important risk factor for an ankle sprain. Injury prevention programmes should focus on ankle sprains and concentrate on players with previous ankle sprains." (*Br J Sports Med* 2004;38:477-81.)

Sports medicine research has noted that too much posture "sway" heightens the risk for ankle injuries (*Clin J Sports Med* 2000;10:239-44). Chiropractic care provided by Dr. Terai helps establish and maintain optimal posture, which diminishes sway and

corresponds directly to better balance.

When ankle sprains do occur, chiropractic care is a fast and effective care option. In one study, researchers divided 30 patients with ankle sprains into two groups: 15 received ankle adjustments, and 15 underwent ultrasound treatment. After eight sessions spanning four weeks, the chiropractic group showed a greater reduction in pain and increased ankle range of motion and function, compared to the ultrasound group (*J Manipulative Physiol Ther* 2001;24:17-24).

Doctors of chiropractic, like Dr. Terai, also frequently recommend proprioceptive training and ankle bracing for preventing ankle sprains during volleyball.



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Proprioceptive instruction typically involves balance training, such as learning to balance on a wobbly “balance-board.”

A recent study set out to determine whether proprioceptive training would in fact reduce the rate of ankle injury among volleyball players. The researchers followed 116 male and female volleyball teams during one season.

The researchers found significantly fewer ankle sprains in the intervention group compared to the control group. The researchers conclude: “Use of a proprioceptive balance board program is effective for prevention of ankle sprain recurrences.” (*Am J Sports Med* 2004;32:1385-93.)

Another recent investigation found that bracing also decreases volleyball ankle injuries. The study uncovered that, among the women volleyball players it followed, “prophylactic use of a double-upright ankle brace significantly reduced the ankle injury rate compared with that reported by the National Collegiate Athletic Association. From these data, it appears that the use of such a brace is an effective way to decrease the incidence of ankle injuries in this active but vulnerable group of athletes.” (*Am J Sports Med* 2008;36:324-7.)

Shoulder Injuries

Due to the constant overhead motions needed to play volleyball, the shoulder is also a common site of injury.

Chiropractic care will help ensure that the shoulder is properly aligned and strengthened, reducing the risk of injury. If the shoulder does sustain an injury, chiropractic can reduce symptoms and speed recovery.

For instance, a recent case study looked at a patient with “anterior shoulder pain and a diffuse ache in the right upper arm, with tenderness in the shoulder region on palpation. Shoulder range of motion was limited with pain and catching, coupled with limited and painful cervical [neck] motion. After physical and orthopedic examination,

a clinical diagnosis of shoulder impingement syndrome was made.”

At the end of the treatment protocol, the patient was symptom free. After 12 weeks, the patient continued to be symptom free with full range of motion and complete return to normal daily and pre-treatment activities. The researchers conclude: “This case report shows the potential benefit of a multimodal chiropractic protocol in resolving symptoms associated with shoulder impingement syndrome.” (*J Manipulative Physiol Ther* 2004;27:580-90.)

Another report in the prestigious medical journal, *Annals of Internal Medicine*, looked at 150 patients with shoulder problems. All patients received standard medical care. Half of the patients also underwent manipulative therapy of the shoulder joint. After 12 weeks, 43 percent of the manipulative therapy group had recovered, compared with only 21 percent of controls. When researchers checked back with the patients after one year, the same difference in recovery rate persisted. “Manipulative therapy for the shoulder girdle in addition to usual medical care accelerates recovery of shoulder symptoms,” conclude the study’s authors (*Ann Intern Med* 2004;141:432).

Knee Injuries

Volleyball players frequently suffer from “jumper’s knee.” One analysis determined that “jumper’s knee, or patellar tendinopathy, affects nearly one half of elite volleyball athletes.”

Conservative approaches, and exercises, like those recommended by chiropractors, are very effective at preventing jumper’s knee. “Patellar tendinopathy is a common and difficult-to-treat overuse injury of the patellar tendon with a very negative impact on the careers of many athletes. It appears to involve a failed healing process in the tendon — not inflammation — and has consequences for the treatment strategy. Rehabilitation programs are based on the principles of load reduction and an eccentric exercise program to improve muscle-tendon function and optimize the kinetic chain. Pro-

longed rehabilitation is necessary because of slow tendon recovery.” (*Ned Tijdschr Geneesk* 2008;152:1831-7.)



On the other hand, drugs and surgery often fail. “Anti-inflammatory treatment is often unsuccessful. Surgery does not guarantee a quick symptom-free return to sport at the original level either.” (*Ned Tijdschr Geneesk* 2008;152:1831-7.)

Act Quickly

Always get a chiropractic evaluation after any volleyball injury, no matter how minor it might seem. This will help prevent the injury from worsening over time. Chiropractors know that the body works as one unit, and an injury in one area will most likely affect other areas.

And don’t wait until an injury occurs to get a chiropractic checkup. Regular chiropractic care helps athletes of all ages prevent injury and maintain optimal performance.

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