



STAYING HEALTHY

Volleyball Injury Prevention

According to the U.S. Consumer Product Safety Commission, more than 183,000 volleyball-related injuries were treated in hospital emergency rooms, doctors' offices, and clinics in 2015.

Common Volleyball Injuries

Although volleyball accounts for just a small percentage of all organized sports injuries, participation in the sport is on the rise, and with that comes more potential for injury.

Because volleyball players repeatedly use their shoulders for spiking and blocking, overuse injuries of the shoulder are common. Sprains and strains, most often around ankle, also occur. Finger injuries, such as dislocations and tendon tears, frequently occur during setting and blocking.

Several strategies can help prevent volleyball injuries – from preparation and safety equipment to careful inspection of the court.



Spiking and blocking can lead to overuse injuries of the shoulder and finger injuries, such as dislocations and tendon tears.

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Proper Preparation for Play

- **Maintain fitness.** Be sure you are in good physical condition at the start of volleyball season. During the off-season, stick to a balanced fitness program that incorporates aerobic exercise, strength training, and

flexibility. If you are out of shape at the start of the season, gradually increase your activity level and slowly build back up to a higher fitness level.

- **Warm up and stretch.** Always take time to warm up and stretch. Research studies have shown that cold muscles are more prone to injury. Warm up with jumping jacks, stationary cycling, or running or walking in place for 3 to 5 minutes. Then slowly and gently stretch, holding each stretch for 30 seconds.
- **Cool down and stretch.** Stretching at the end of practice is too often neglected because of busy schedules. Stretching can help reduce muscle soreness and keep muscles long and flexible. Be sure to stretch after each training practice to reduce your risk for injury.
- **Hydrate.** Even mild levels of dehydration can hurt athletic performance. If you have not had enough fluids, your body will not be able to effectively cool itself through sweat and evaporation. A general recommendation is to drink 24 ounces of non-caffeinated fluid 2 hours before exercise. Drinking an additional 8 ounces of water or sports drink right before exercise is also helpful. While you are exercising, break for an 8 oz. cup of water every 20 minutes.
- **Sun protection.** When playing volleyball outdoors, apply at least SPF 15 sunscreen. Wear sunglasses to filter out UVA and UVB rays, and wear a hat with a visor to shade your eyes and face.

Ensure Appropriate Equipment

- Use knee pads to protect yourself from injury when you fall or dive onto the court.
- Defensive pants, which are padded from hip to knee, can protect you from floor burns and bruises.
- Wear shoes that provide strong ankle and arch support and offer good shock absorption.
- Consider using an ankle support to provide stability and prevent your foot and ankle from rolling over to the side.

Ensure a Safe Environment

- The volleyball court should have 23 ft. of overhead clearance. Objects such as portable basketball goals, lighting fixtures, and tree limbs should be cleared from the space above the court.
- If the volleyball net is supported by wires, the wires should be covered with soft material.
- Before playing an outdoor volleyball game, always check the ground for sharp objects and glass.

Focus on Technique

- Do not grab the net or hang on to supports, which can cause the net to overturn and fall on you or other players.
- "Call" the ball to reduce the chance of colliding with another player.

Prepare for Injuries

- Coaches should be knowledgeable about first aid and be able to administer it for minor injuries, such as facial cuts, bruises, or minor strains and sprains.
- Be prepared for emergencies. All coaches should have a plan to reach medical personnel for help with more significant injuries such as concussions, dislocations, contusions, sprains, abrasions, and fractures.

Safe Return to Play

An injured player's symptoms must be completely gone before returning to play. For example:

- In case of a joint problem, the player must have no pain, no swelling, full range of motion, and normal strength.
- In case of concussion, the player must have no symptoms at rest or with exercise, and should be cleared by the appropriate medical provider.

Prevent Overuse Injuries

Because many young athletes are focusing on just one sport and are training year-round, doctors are seeing an increase in overuse injuries. The American Academy of Orthopaedic Surgeons has partnered with STOP Sports Injuries to help educate parents, coaches, and athletes about how to prevent overuse injuries. Specific tips to prevent overuse injuries include:

- If you are a parent, limit the number of teams on which your child is playing in one season. Kids who play on more than one team are especially at risk for overuse injuries.
- Do not allow your child to play one sport year round – taking regular breaks and playing other sports is essential to skill development and injury prevention.

Statistical data in this article was reviewed by the AAOS Department of Research and Scientific Affairs.

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