



Common martial arts injuries

Injuries depend on level of contact

In the US, millions of people take part in the martial arts, with karate and tae kwon do the most popular styles. Around the world, more people participate in judo than any other sport next to soccer. In fact, there are hundreds of styles of martial arts practiced around the world. People train in the martial arts for a variety of reasons, including fitness, strength, balance, self-defense, discipline and even spiritual fulfillment.

The types of injuries seen in the martial arts depend on the form. For example, in contact martial arts, participants are at risk for cuts, bruises and more serious injuries such as broken bones, dislocations and concussions. In all forms of martial arts, overuse injuries affecting the hands, shoulders and legs are common.



Player Safety

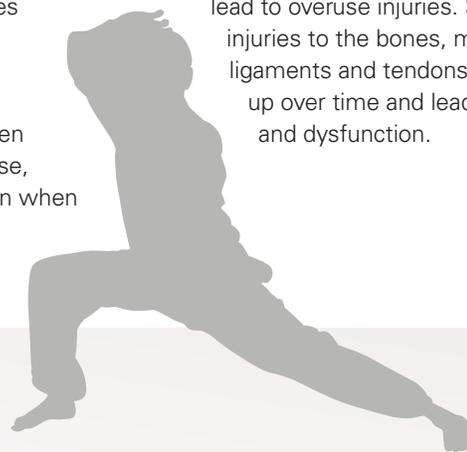
Common accidents, serious injuries

Concussions A hard blow to the head or a fall to the ground may cause a concussion. Symptoms include headaches, dizziness and a need to vomit. Athletes with concussion symptoms should be removed from activities and evaluated by a medical professional.

Cuts and bruises The eyes, ears and nose are susceptible to cuts and bruises, especially in contact-style martial arts.

Fractures and dislocations In martial arts styles that use throws and joint locking techniques, fractures and joint dislocations can occur. Shoulders are susceptible to breaks and dislocations, particularly when a participant falls. The ribs, nose, skull and hands may be broken when an athlete is kicked or punched.

Overuse injuries Repetitive motions like blocking, kicking and striking may lead to overuse injuries. Small injuries to the bones, muscles, ligaments and tendons can build up over time and lead to pain and dysfunction.



How can you prevent martial arts injuries?

- **Pre-preparation exam** Before starting in the martial arts, take a physical exam and make sure you're cleared to participate. A thorough exam will determine if you have the strength, endurance and flexibility to take part fully in your selected discipline.

Also, a pre-participation exam may include neurocognitive testing for concussion symptoms. These tests look at memory loss, decision making and reaction times. Athletes should not participate if they show any signs of concussion.

- **Work with a good instructor** The martial arts can be practiced with relative safety when strong emphasis is placed on proper technique, respect for the discipline and sportsmanship. Choose qualified instructors and well-regarded schools that emphasize order and honor, as well as physical skill.
- **Warm up and cool down** The risk of overuse injuries may be reduced when participants warm up with about 15 minutes of aerobic activities, like running in place and jumping rope. Stretching the arms, back, neck, trunk, wrists and ankles is also recommended.
- **To cool down, try stretching to lengthen your muscles while the body is at rest.** Be sure to hold stretches for 30 seconds or so.
- **Use protective gear** Serious injuries to the nose, face and skull may be prevented by wearing protective headgear and mouth guards. To protect other parts of the body, gloves, chest protectors, hand and foot pads and bracing are options. Remember: different martial arts styles present different injury risks, so work with your instructor and choose protective equipment accordingly.



Choosing a Discipline

Before selecting a martial art to participate in, you and your child should consider the unique characteristics, needed skills and potential risks of each. **Here's a look at some of the more popular styles in the US:**

Karate

Meaning "empty hand" in Japanese, karate involves hard blocks, punches and kicks. An extremely physical form of martial art, successful karatekas rely as much on self-discipline as strength and skill.

Judo

The goal of judo is to throw an opponent to the ground and then secure the opponent through pins, holds and other techniques. To do this, participants engage with opponents in standing positions and on the ground. In Olympic competition, judo requires 5 minutes of contact between opponents, making it one of the more taxing combat sports.

Tae Kwon Do

An Olympic sport since 2000, Tae Kwon Do is a full contact activity that relies on powerful forms and drills, such as kicks and strikes with the hand. Exceptional physical conditioning and great technical skill are required.



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This piece is part of an informational series on sports injury prevention produced by the Orthopedic Center/Sports Medicine Division at Boston Children's Hospital. For materials on preventing injuries in other sports, call 617-355-3501 or visit bostonchildrens.org/sportsmed.



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