



Ankle Sprains

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What are they?

Ankle sprains are one of the most common injuries in youth soccer. In fact, researchers have estimated that ankle injuries account for 10 to 30 percent of all sports related injuries in young athletes and from 16 to 29 percent of all soccer specific injuries (1, 2). In this article, we will briefly review the common causes of ankle injuries, basic immediate medical care, and rehabilitation.

Three bones form the ankle joint. One is called the fibula and is located on the outside of the lower leg and the other is the tibia or the “shin” bone. Within the notch formed by the bottom of these two lower leg bones sits the talus. Several bands called ligaments connect these bones to each other to stabilize the ankle joint while allowing for movement in specific directions. Sprains are ligament injuries caused by excessive movement of a joint.

Causes

Most ankle sprains occur to the ligaments along the outside of the ankle when the foot rolls inward (inversion). Stepping on uneven ground or landing on another player’s foot are two common mechanisms for this type of injury. A “high ankle sprain” is a less common type of sprain that involves the ligaments connecting the tibia and fibula. This rotation injury can happen when one player falls directly across another’s ankle. The severity of any sprain can range from a minor stretch of the ligaments to a partial or complete tear. In some cases, a sprain can be associated with a fracture of surrounding bone.

RICE

Use the acronym “RICE” to remember the basic first aid steps to take immediately after an ankle injury: **R**est, **I**ce (20 minutes every 1-2 hours), **C**ompression (using an elastic bandage, start near toes and wrap to above ankle), and **E**levation (level of heart or higher). In addition, non-steroidal anti-inflammatory pain medications such as over the counter ibuprofen taken in the five days after an ankle injury can reduce pain and may help an athlete return to play faster (3). Most ankle sprains are uncomplicated and will heal with basic medical care and rehabilitation. However, some will be more severe and many can lead to chronic problems for athletes. In fact, research suggests that over 40 percent of ankle sprains can lead to chronic problems if not properly treated (4, 5). With that said any ankle injury, especially in a young athlete with open growth plates, should be evaluated by a medical professional to determine if additional testing is required and to develop a treatment and rehabilitation plan. Furthermore, inability to bear weight on the foot after the injury, severe pain, weakness, and numbness are all signs that an athlete should be seen urgently.

Once an ankle sprain has been evaluated and swelling and pain controlled with a few days of “RICE”, a rehabilitation program should be initiated. Some home exercises that your provider

may recommend include improving range of motion by writing the letters of the alphabet in the air using your big toe as the point of an imaginary pencil. Picking up small objects with the toes and placing them in a bowl or moving the ankle against the resistance of latex bands can help build strength. Balance exercises improve coordination and function. Straight ahead walking and then running is usually allowed as tolerated with advancement to more soccer-type movements like cutting and jumping as rehab progresses. A lace-up brace may even be recommended to assist with joint support until adequate healing and function of the injured ligaments is achieved. Immobilization in a cast or boot may actually interfere with rehabilitation of ankle injuries however (6). Many athletes seek to tape their ankle for "protection." It is likely that while taping may add some minor support and help with sensory feedback this step is not necessary to prevent an ankle injury once an athlete has completed a rehabilitation program.

In summary, while ankle injuries are very common in soccer proper care and rehabilitation can ensure that a player returns to form as quickly as possible. Recovery times vary but typically are 2-4 weeks for mild ankle sprains and around 6 weeks for high ankle sprains. Regardless of the type of sprain, appropriate evaluation and management are critical. Furthermore, training programs that focus on general conditioning, strengthening, and proper footwear can help prevent ankle injuries from occurring in the first place.

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Misc

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