

## REHABILITATION OF ANKLE SPRAINS

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An **ankle sprain** is a very common injury that can happen to athletes, non-athletes, children and adults. A **sprain** refers to a stretching or tearing of a **ligament**. **Ligaments** are tough bands of fibrous tissue that connect one bone to another. They help stabilize joints, preventing excessive movement. One or more ligaments can be injured at the same time. Sprained ankles often result from a fall, a sudden twist, or a blow that forces the ankle joint out of its normal position. This may occur while participating in sports and recreational activities, wearing inappropriate shoes, or running, walking or stepping on uneven surfaces.



**Inversion ankle sprains** constitute 90% of all ankle sprains. This type of injury occurs when the foot is forced inward (*inversion*) and produces most of the pain on the outer side of the ankle. **Eversion ankle sprains** are less common and occur when the foot is forced outward (*eversion*), causing the most pain on the inner side of the ankle. A **high ankle sprain** is a unique and separate injury in which the ligaments around and above the ankle joint are injured. This is known as a **syndesmotic sprain**.

Pain and swelling are the most common symptoms of an ankle sprain. There may be bruising over the area of injury which may spread down into the foot towards the toes several days following the injury. Individuals may also experience difficulty walking or weight bearing on their injured ankle. Most ankle sprains can be managed conservatively. However, obvious evidence or suspicion of a broken bone, fracture or joint dislocation necessitates the need for emergency medical care.

Initial conservative management of ankle sprains should follow the **P.R.I.C.E.** principle (**P**rotection, **R**est, **I**ce, **C**ompression, **E**levation). The **P.R.I.C.E.** principle helps decrease pain and swelling and can be used during the rehabilitative process as needed. Additional treatment options include ultrasound, laser therapy, taping, bracing, soft tissue techniques, and manual mobilization to assist in returning to full functioning. Rehabilitative strategies should also include exercises that incorporate active range of motion, stretching and strengthening for the ankle joint and lower extremity, along with proprioceptive/balance training to minimize the risk of ankle instability and re-injury.



Assuming that proper rehabilitative strategies are employed, successful recovery from an ankle sprain injury will depend upon the severity of ligament damage. Mild injuries usually heal completely without any residual consequence in 1 to 4 weeks. Moderate injuries usually require 4 to 12 weeks to heal. Severe injuries will take longer to heal. In some circumstances, surgery may be required for severe ankle sprains.

An untreated ankle sprain may lead to chronic ankle instability. This may also result in secondary foot, knee, hip, leg, and back problems because of subtle changes in movement patterns. If you are having difficulty with ankle pain, a qualified health professional can determine the cause of your pain and prescribe appropriate therapy and rehabilitation strategies specifically for your circumstance. For more information, visit [www.nhwc.ca](http://www.nhwc.ca).

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