

Ankle Injuries: To Tape or Not to Tape?

Opinions about ankle wrapping, taping or bracing as prevention against ankle injuries that include sprains, strains and fracture. Ankle injuries are common in soccer and can lead to days or weeks lost from competition or practice. As a result, leagues across the country are taking steps to better protect athletes from injury: improving shoes and playing fields, and educating coaches and certified athletic trainers about conditioning and injury prevention techniques that include ankle strengthening and appropriate use of external ankle supports.

To the last, what does the research reveal about the usefulness of external ankle support in preventing injuries, or in helping to prevent another ankle injury?

Ankle Taping as Injury Prevention

Ankle taping has been used for years as a method to *prevent ankle injuries*, despite a lack of significant evidence supporting its use. Only in recent years has research more closely examined the effectiveness of this technique.

In sum, most research shows little evidence supporting ankle wrapping or taping for injury prevention. Contrary to popular belief, some studies found that wrapping reduced proprioceptive feedback (the sense of where the ankle and foot is in space) associated with ankle stability and maintenance of a normal position when faced with an unstable or abnormal position.

Other studies found that the Peroneal muscles located on the outside of the ankle bone that help to control ankle motion did not react as quickly when wrapped or taped. Still other studies reported a decrease in performance when the tape or wrap was applied inappropriately. Last, several studies found that most tape loosens within 10 to 60 minutes of application, providing no measurable support.

Ankle Taping to Prevent Re-injury

Research supports use of ankle taping, wrapping and bracing (orthosis) by athletes who have experienced one or more ankle injuries. The external support provides backup for ankle muscles, ligaments and tendons.

First-line treatment for ankle injuries includes a rehabilitation program supervised by a physical therapist and a certified athletic trainer, followed by use of a brace for up to six months after injury. A progressive strengthening, proprioceptive and flexibility program should follow an ankle injury.

Ankle wrap or tape should be regularly used in practice and competition, and can be applied by coaches and parents who are trained in appropriate techniques.

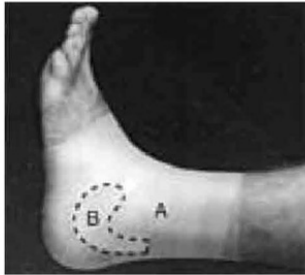
What About Bracing?

Bracing is a good choice for players who require additional support following an injury and is an option in lieu of taping by a trained professional. Braces are less expensive than taping and tend not to irritate or breakdown the skin. Players can tighten the brace during competition and practice.

Ankle Wrapping Techniques

The Stirrup and Figure 8 taping techniques are most useful in preventing ankle re-injury. Athletes who routinely use ankle tape may rely on coaches and parents to help apply tape strips, anchors or pre-wrap.

Stirrup Technique



Step 1

Preparation: Shave the ankle region before taping. Or, use a pre-taping underwrap to prevent painful hair removal from the skin. This wrap also eliminates possible skin reactions caused by adhesive.

- Use pre-taping underwrap in a traditional Figure 8 "overwrapping" style if you are unable to shave or are sensitive to the adhesive properties of tape.



Step 2

Anchors are next applied (top). Their function is to firmly attach the Stirrups (side, first stirrup). Sports tape 38mm is the most popular tape for this technique.



Step 3

Three Stirrups are generally applied (side, Stirrups 2 and 3). These attach to the anchors starting from medial (inside) to lateral (outside) in a U-shape formation. They provide excellent support.



Step 4

The ankle taping technique is completed with Figure 8s and a spiral to completely encase the rigid tape.

As a precaution: Ask the athlete to walk around to check for any discomfort. Pain, numbness, pins and needles or excessive redness in the foot/ankle region may indicate circulation difficulties. The tape will have to be adjusted if any of these symptoms are present. If the athlete advises of a pinching pain around the base of the fifth metatarsal, scissors will be required to cut through to relieve pain.

continued

Figure 8 Technique



Step 1

As with full ankle strapping, the starting point is the forefoot.



Step 2

The bandage is then taken diagonally upwards, steeply enough to go well above the heel.



Step 3

Then around the lower calf...



Step 4

around the lower calf...



Step 5

to form an anchor.



Step 6

Then diagonally down across the mid foot.



Step 7

Go around the forefoot again...



Step 8

and diagonally up to finish off around the lower calf, leaving the heel open.

Research Gaps

There is still much to learn about preventing ankle injuries. What conditioning and in-season training programs are best to prevent ankle injuries? Will these programs equally protect men and women, or do gender needs differ? What is best intervention for an athlete who has already experienced an ankle injury? These questions and more will be addressed in coming years.

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