

# Ankle Sprain

## What is an ankle sprain?

An ankle sprain is an injury that causes a stretch or tear of one or more ligaments in the ankle joint. Ligaments are strong bands of tissue that connect bones at the joint.

Sprains may be graded I, II, or III depending on their severity:

- grade I sprain: pain with minimal damage to the ligaments
- grade II sprain: more ligament damage and mild looseness of the joint
- grade III sprain: complete tearing of the ligament and the joint is very loose or unstable.

Sometimes sprains are just classified as mild or severe, depending on the amount of ligament damage.

Most sprains occur on the outside part of the ankle, but they can occur on the inside as well.

## How does it occur?

A sprain is caused by twisting your ankle. Your foot usually turns in or under but may turn to the outside.

## What are the symptoms?

Symptoms of a sprained ankle include:

- mild aching to sudden pain
- swelling

- discoloration
- inability to move the ankle properly
- pain in the ankle even when you are not putting any weight on it.

## How is it diagnosed?

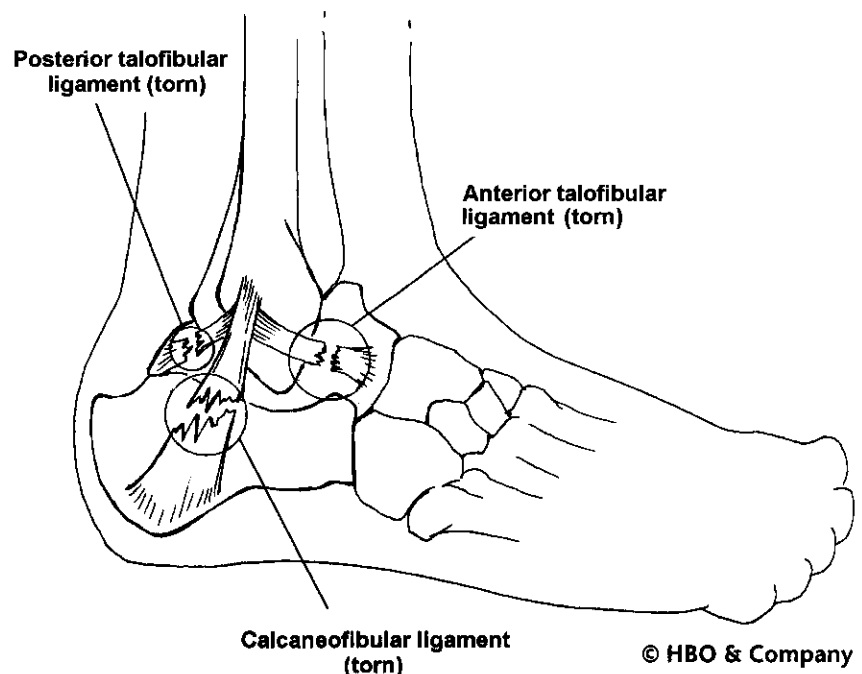
To diagnose a sprained ankle, the doctor will review how the injury occurred and consider your symptoms. He or she will examine your ankle carefully. X-rays may be taken of your ankle.

## How it is treated?

Treatment may include:

- Applying ice packs to your ankle for 20 to 30 minutes every 3 to 4 hours for the first 2 to 3 days or until the pain goes away. Thereafter, ice your ankle at least once a day until the other symptoms are gone.
- Elevating your ankle by placing a pillow underneath your foot. Try to keep your ankle above the level of your heart.
- Wrapping an elastic bandage around your ankle to keep the swelling from getting worse.
- Wearing a lace-up brace or ankle stirrup (an Aircast or Gelcast).

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- Using crutches until you can walk without pain.
- Taking anti-inflammatory medication or other pain medication prescribed by your doctor.
- Doing ankle exercises to improve your ankle strength and range of motion. The exercises will help you return to your normal activity or sports.

Rarely, severe ankle sprains with complete tearing of the ligaments need surgery. After surgery your ankle will be in a cast for 4 to 8 weeks.

### ***How long will the effects last?***

The length of recovery depends on many factors:

- age
- health
- severity of injury and previous injuries to that joint.

### ***When can I return to my sport or activity?***

The goal of rehabilitation is to return you to your sport or activity as soon as is safely

possible. If you return too soon you may worsen your injury, which could lead to permanent damage. Everyone recovers from injury at a different rate. Return to your sport or activity will be determined by how soon your ankle recovers, not by how many days or weeks it has been since your injury occurred. In general, the longer you have symptoms before you start treatment, the longer it will take to get better.

You may safely return to your sport or activity when, starting from the top of the list and progressing to the end, each of the following is true:

- You have full range of motion in the injured ankle compared to the uninjured ankle.
- You have full strength of the injured ankle compared to the uninjured ankle.
- You can jog straight ahead without pain or limping.
- You can sprint straight ahead without pain or limping.
- You can do 45-degree cuts, first at half-speed, then at full-speed.
- You can do 20-yard figures-of-eight, first at half-speed, then at full-speed.
- You can do 90-degree cuts, first at half-speed, then at full-speed.
- You can do 10-yard figures-of-eight, first at half-speed, then at full-speed.
- You can jump on both legs without pain and you can jump on the injured leg without pain.

### ***How can I help prevent an ankle sprain?***

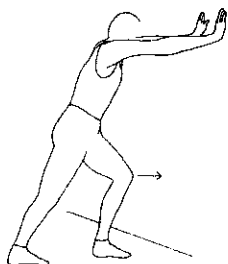
To help prevent an ankle sprain, follow these guidelines:

- Wear proper, well-fitting shoes when you exercise.
- Stretch gently and adequately before and after athletic or recreational activities.
- Avoid sharp turns and quick changes in direction and movement.
- Consider taping the ankle or wearing a brace for strenuous sports, especially if you have a previous injury.

## Ankle Sprain Rehabilitation Exercises

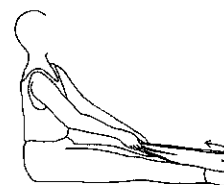
As soon as you can tolerate pressure on the ball of your foot, begin stretching your ankle using the towel stretch. When this stretch is too easy, try the standing calf stretch and soleus stretch. You can do exercises 4 and 5 when your ankle swelling has stopped increasing. You may do exercises 6 through 10 when you can stand on your injured ankle without pain.

1. Towel stretch: Sit on a hard surface with your injured leg stretched out in front of you. Loop a towel around the ball of your foot and pull the towel toward your body, keeping your knee straight. Hold this position for 30 seconds. Repeat 3 times.



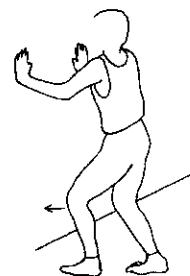
Standing calf stretch

2. Standing calf stretch: Facing a wall, put your hands against the wall at about eye level. Keep the injured leg back, the uninjured leg forward, and the heel of your injured leg on the floor. Turn your injured foot slightly inward (as if you were pigeon-toed). Slowly lean into the wall until you feel a stretch in the back of your calf. Hold for 30 seconds. Do this several times a day.



Towel stretch

3. Standing soleus stretch: Stand facing a wall with your hands at about chest level. With both knees slightly bent and the injured foot back, gently lean into the wall until you feel a stretch in your lower calf. Once again, angle the toes of your injured foot slightly inward and keep your heel down on the floor. Hold this for 30 seconds. Return to the starting position. Repeat 3 times.



Standing soleus stretch

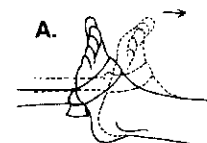


Ankle range of motion

4. Ankle range of motion: You can do this exercise sitting or lying down. Pretend you are writing each of the letters of the alphabet with your foot. This will move your ankle in all directions. Do this twice.

### 5. Thera-Band exercises

- A. Resisted dorsiflexion: Sitting with your leg out straight and your foot near a door, wrap the tubing around the ball of your foot. Anchor the other end of the tubing to the door by tying a knot in the tubing, slipping it between the door and the frame, and closing the door. Pull your toes toward your face. Return slowly to the starting position. Repeat 10 times. Do 3 sets of 10.
- B. Resisted plantar flexion: Sitting with your leg outstretched, loop the middle section of the tubing around the ball of your foot. Hold the ends of the tubing in both hands. Gently press the ball of your foot down and point your toes, stretching the Thera-Band. Return to the starting position. Repeat 10 times. Do 3 sets of 10.



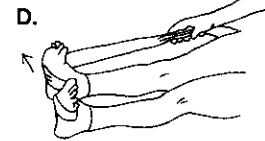
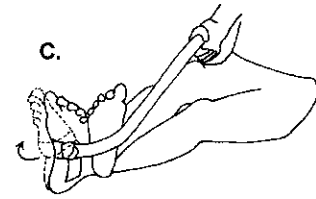
B.



Theraband exercises

## Ankle Sprain Rehabilitation Exercises

C. Resisted inversion: Sit with your legs out straight and cross your uninjured leg over your injured ankle. Wrap the tubing around the ball of your injured foot and then loop it around your uninjured foot so that the Thera-Band is anchored at one end. Hold the other end of the Thera-Band in your hand. Turn your injured foot inward and upward. This will stretch the tubing. Return to the starting position. Repeat 10 times. Do 3 sets of 10.



Theraband exercises



Heel raises

D. Resisted eversion: Sitting with both legs out stretched and the tubing looped around both feet, slowly turn your injured foot upward and outward. Hold this position for 5 seconds. Repeat 10 times. Do 3 sets of 10.

6. Heel raises: Standing, balance yourself on both feet behind a chair. Rise up on your toes, hold for 5 seconds and then lower yourself down. Repeat 10 times. Do 3 sets of 10.



Single leg balance

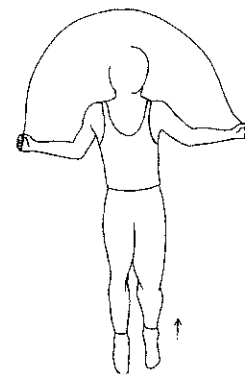
7. Toe raises: Stand in a normal weight-bearing position. Rock back on your heels so that your toes come off the ground. Hold this position for 5 seconds. Repeat 10 times. Do 3 sets of 10.



Toe raises

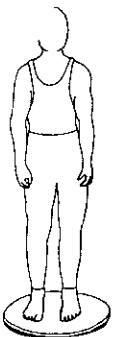
8. Single leg balance: Stand without any support and attempt to balance on your injured leg. Begin with your eyes open and then try to perform the exercise with your eyes closed. Hold the single-leg position for 30 seconds. Repeat 3 times.

9. Jump rope: Jump rope landing on both legs for 5 minutes, then on only the injured leg for 5 minutes.



Jump rope

10. Wobble board: This exercise is important to restore balance and coordination to your ankle. Make a wobble board by cutting a circle of plywood two feet across. Place it on top of a 5 or 10 pound weight from a barbell set. Stand on the wobble board. Balance first on both legs, then on the injured leg. Do this for 2 to 5 minutes 3 times a day. You may need to hold onto a chair or table for balance.



Wobble board