

# 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.

There are many ligaments in the ankle. The most common type of sprain involves the ligaments on the outside part of the ankle (lateral ankle sprain). Ligaments on the inside of the ankle may also be injured (medial ankle sprain) as well as ligaments that are high and in the middle of the ankle (high ankle sprains).

## 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 healthcare provider 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 the following:

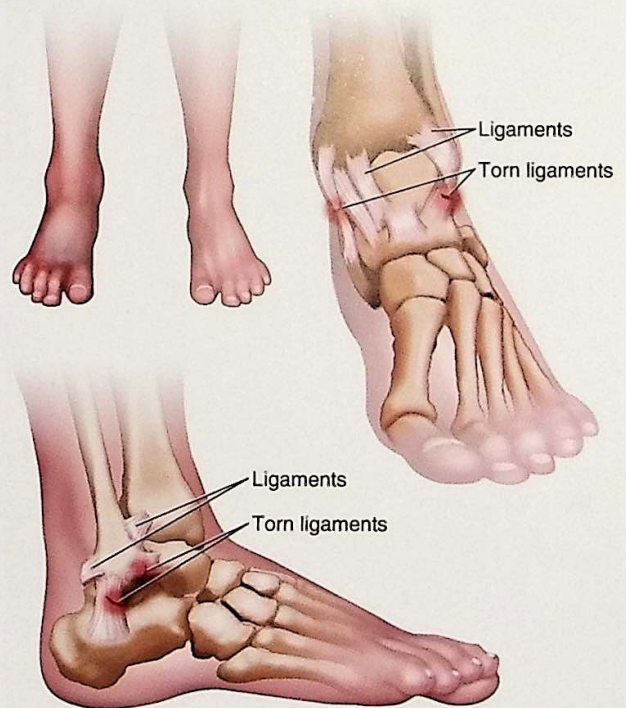
- Applying ice packs to your ankle for 20 to 30 minutes every 3 to 4 hours for the first 2 to 3 days or until the pain goes away. Thereafter, ice your ankle

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 Gel cast).
- Using crutches until you can walk without pain.
- Taking anti-inflammatory medication, such as ibuprofen, or other pain medication prescribed by your provider (adults aged 65 years and older should not take non-steroidal anti-inflammatory medicine for more than 7 days without their health-care provider's approval)
- 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.

## ANKLE SPRAIN





## How long will the effects last?

The length of recovery depends on many factors such as your age, health, and if you have had a previous ankle injury. Recovery time also depends on the severity of the sprain. A mild ankle sprain may recover within a few weeks, whereas a severe ankle sprain may take 6 weeks or longer to recover. Recovery also depends on which ligaments were torn. A lateral sprain (outside ligaments) takes less time to recover than a medial sprain (inside ligaments) or a high ankle sprain (high, middle ligaments).

## 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?

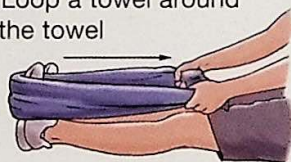
To help prevent an ankle sprain, follow these guidelines:

- 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.

**1. TOWEL STRETCH:** Sit on a hard surface with one 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 15 to 30 seconds then relax. Repeat 3 times.



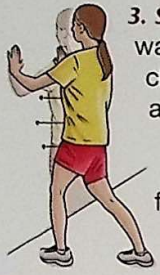
TOWEL STRETCH

**2. STANDING CALF STRETCH:** Facing a wall, put your hands against the wall at about eye level. Keep one leg back with the heel on the floor, and the other leg forward. Turn your back foot slightly inward (as if you were pigeon-toed) as you slowly lean into the wall until you feel a stretch in the back of your calf. Hold for 15 to 30 seconds. Repeat 3 times. Do this exercise several times each day.



STANDING CALF STRETCH



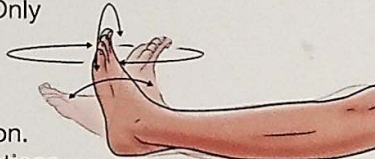


STANDING SOLEUS STRETCH

**3. STANDING SOLEUS STRETCH:** Stand facing a wall with your hands on a wall at about chest level. With both knees slightly bent and one foot back, gently lean into the wall until you feel a stretch in your lower calf. Angle the toes of your back foot slightly inward and keep your heel down on the floor. Hold this for 15 to 30 seconds. Return to the starting position. Repeat 3 times.

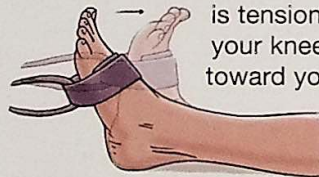
You can do the next 5 exercises when your ankle swelling has stopped increasing.

**4. ANKLE RANGE OF MOTION:** Sitting or lying down with your legs straight and your knee toward the ceiling, move your ankle up and down by pointing your toes toward your nose, then away from your body; in toward your other foot and out away from your other foot; and in circles. Only move your foot and ankle. Don't move your leg. Repeat 10 times in each direction. Push hard in all directions.



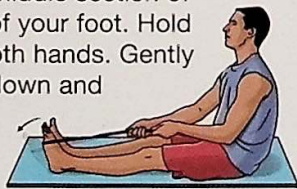
ANKLE RANGE OF MOTION

**5. RESISTED ANKLE DORSIFLEXION:** Sit with one leg out straight and your foot facing a doorway. Tie a loop in one end of elastic tubing. Put your foot through the loop so that the tubing goes around the arch of your foot. Tie a knot in the other end of the tubing and shut the knot in the door. Move backward until there is tension in the tubing. Keeping your knee straight, pull your foot toward your body, stretching the tubing. Slowly return to the starting position. Do 3 sets of 10.



RESISTED ANKLE DORSIFLEXION

**6. RESISTED ANKLE PLANTAR FLEXION:** Sit with your leg outstretched and 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 tubing. Return to the starting position. Do 3 sets of 10.



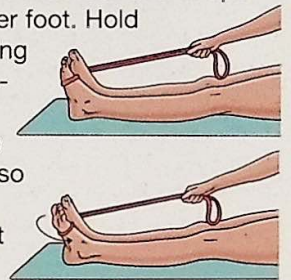
RESISTED ANKLE PLANTAR FLEXION

**7. RESISTED ANKLE INVERSION:** Sit with your legs out straight and cross one leg over your other ankle. Wrap elastic tubing around the ball of your bottom foot and then loop it around your top foot so that the tubing is anchored there at one end. Hold the other end of the tubing in your hand. Turn your bottom foot inward and upward. This will stretch the tubing. Return to the starting position. Do 3 sets of 10.



RESISTED ANKLE INVERSION

**8. RESISTED ANKLE EVERSION:** Sit with both legs stretched out in front of you, with your feet about a shoulder's width apart. Tie a loop in one end of elastic tubing. Put one foot through the loop so that the tubing goes around the arch of that foot and wraps around the outside of the other foot. Hold onto the other end of the tubing with your hand to provide tension. Turn the foot with the tubing up and out. Make sure you keep your other foot still so that it will allow the tubing to stretch as you move your foot with the tubing. Return to the starting position. Do 3 sets of 10.



RESISTED ANKLE EVERSION

You may do the rest of the exercises when you can stand on your injured ankle without pain.



**9. HEEL RAISE:** Balance yourself while standing behind a chair or counter. Raise your body up onto your toes and hold for 5 seconds. Then slowly lower yourself down. Hold onto the chair or counter if you need to. When this exercise becomes less painful, try lowering on one leg only. Repeat 10 times. Do 3 sets of 10.

HEEL RAISE

**10. STEP-UP:** Stand with the foot of one leg on a support (like a block of wood) 3 to 5 inches high. Keep your other foot flat on the floor. Shift your weight onto the leg on the support and straighten the knee as the other leg comes off the floor. Lower your leg back to the floor slowly. Do 3 sets of 10.



STEP-UP

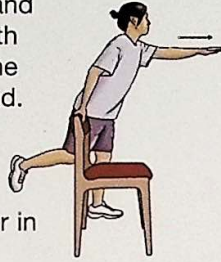
ANKLE



**11. BALANCE AND REACH EXERCISES**

Stand upright next to a chair. This will provide you with balance if needed. Stand on the foot farthest from the chair. Try to raise the arch of your foot while keeping your toes on the floor.

A. Keep your foot in this position and reach forward in front of you with your hand farthest away from the chair, allowing your knee to bend. Repeat this 10 times while maintaining the arch height. This exercise can be made more difficult by reaching farther in front of you. Do 2 sets.



B. Stand in the same position as above. While maintaining your arch height, reach the hand farthest away from the chair across your body toward the chair. The farther you reach, the more challenging the exercise. Do 2 sets of 10.



BALANCE AND REACH EXERCISES

**12. JUMP ROPE:** Jump rope landing, on both legs, for 5 minutes, then on only one leg at a time for 5 minutes.



JUMP ROPE