

### PrincetonUniversity Athletic Medicine

### Ankle Sprain Protocol

#### Immediately begin using:

# Protection

Further injury can be prevented by taping or bracing your ankle.

## Rest

Rest from all activities that cause pain or limping. If necessary, use crutches until you can walk without pain or limping.

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Place an ice bag on the ankle for 15 to 20 minutes, or use an ice bucket 3 to 5 times a day for the first 24 to 72 hours.

## Compression

Wrap an elastic bandage from the toes to mid calf, using even pressure.
Wear this until swelling decreases. Loosen the wrap if your toes start to turn blue or feel cold.

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**Elevation** 

Elevate the ankle above heart level until swelling subsides.

Ice your ankle after you complete your exercises. Either immerse it in an ice bucket, or wrap it in a bag of ice for 20 minutes on, 20 minutes off.

As soon as you can tolerate pressure on the ball of your foot, begin stretching the ankle using some of the following exercises:

#### **Towel Crunches**

Spread the towel on the floor. Pull it toward you with toes until the towel is fully gathered around your foot. Repeat 10 to 15 times.





#### **Ankle Pumps**

Point your toe, then pull back toward you as hard as possible. Repeat 15 to 20 times.





#### **Towel Stretches**

Sit on a hard surface with your injured leg stretched out in front of you. (a) Loop the towel around your foot and pull back to get a good stretch for 20 seconds. (b) Bend your leg at a 90-degree angle and loop the towel around your forefoot. With your leg bent, pull your foot back for 20 seconds.





When the previous exercises become too easy, try the following:

#### Ankle Circles to the Right and Left

Do this exercise sitting with your foot at the end of the table.

Rotate your foot to the right then left.

Repeat 20 times each way.

#### **Alphabet**

Pretend you are writing each of the letters of the alphabet with your foot.

Repeat 2 times.

#### Marble Pick-up

Grasp the ball between your first and second toes; pick up and transfer to the opposite pile.

Repeat 15 to 20 times.





#### **Slant Board Stretch**

Stand with your heels on the board and lean forward.

Stand with your knees bent and heels down.

Repeat 3 times and hold for 20 seconds.





#### **Wall Slides**

Lie on your back against a wall. With your injured leg, put your foot up on the wall and slide your foot down to your buttocks.

Repeat 20 times.





#### **Isometrics**

#### **Eversion**

While seated, place the outside of your injured foot against a table leg or closed door, push outward with your foot into the object your foot is against (your ankle joint should not move), causing a contraction of your muscles.

Hold this muscle contraction for 5 to 10 seconds, then relax.

Repeat 10 times.

#### **Inversion**

While seated, place the inside of your injured foot against a table leg or closed door, pull inward with your foot into the object your foot is against (your ankle joint should not move), causing a contraction of your muscles.

Hold this muscle contraction for 5 to 10 seconds, then relax.

Repeat 10 times.

#### Thera-Band

#### **Dorsiflexion**

Sitting with your leg out straight and your foot near a door or table, place a rolled towel under your ankle, then 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.

#### **Plantarflexion**

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.

#### Inversion

Sit with your legs out straight and the tubing looped around the injured ankle, wrap the tubing around the end of a table and loop it under so that the Thera-Band is anchored. Hold the 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.

#### **Eversion**

Sitting with both legs outstretched and the tubing looped around your injured ankle, wrap the tubing around the end of a table and loop it under so that the Thera-Band is anchored, slowly turn your injured foot upward and outward. Hold this position for 5 seconds. Repeat 10 times. Do 3 sets of 10.

When you can stand on your injured ankle without any pain you may begin these exercises:

#### **Heel Raises**

Standing, balance yourself on both feet behind a chair or table.

Rise up on your toes, hold for 3 to 5 seconds and then lower yourself down.

Repeat 10 times. Do 3 sets of 10.

As this gets easier, progress to single-leg heel raises.

#### Heel/Toe Walking

Walk on your heels only for 30 repeats.

Walk on your toes only for 30 repeats.

#### **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 3 to 5 seconds.

Repeat 10 times. Do 3 sets of 10.





























#### **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.

Then try it with your knee bent. Hold the single-leg position for 15 to 30 seconds.

Repeat 3 to 5 times.



When you can perform all these exercises without any pain you may begin the following hopping exercises:

#### **Double Leg Hops**

Standing, balance yourself on both feet and perform vertical hops on both feet.

Repeat 20 to 30 times.

#### **Double Leg Hops, Forward/Backward**

Standing, balance yourself on both feet and perform hops in a forward and backward motion.

Repeat 20 to 30 times.

#### **Double Leg Lateral Hops**

Standing, balance yourself on both feet and perform hops laterally.

Repeat 20 to 30 times.

#### **Single Leg Hops**

Standing on your injured foot, perform vertical hops.

Progress by increasing height.

Repeat 20 times.

#### Single Leg Hops, Forward/Backward

Standing on your injured foot, perform hops in a forward and backward motion.

Repeat 20 times.

#### **Single Leg Lateral Hops**

Standing on your injured foot, perform hops laterally.

Repeat 20 times.