

Centre universitaire de santé McGill



TRAUMATOLOGIE TRAUMA

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Ankle Sprain

Information and Rehabilitation

An ankle sprain is a stretch or a tear of the ligaments (bands of tissue that hold bones together) supporting the ankle joint. Most ankle sprains result from the ankle turning inwards during an activity. This can be caused by a fall, a sudden twist, or landing on the side of the foot. The severity of the ankle sprain can vary.

SEVERITY OF AN ANKLE SPRAIN



Grade I

- An over stretch of the ligament
- Minimal swelling and bruising around the ankle
- · Pain with ankle movement
- Able to put weight on the foot, but may limp
- With appropriate exercises, it can take about 2 weeks before returning to activities

Grade II

- A partial tear of the ligament
- Moderate swelling around the ankle.
 Some bruising may appear within a couple of days
- Pain and difficulty moving the ankle
- Difficult to put weight on the foot; may need crutches for a few days
- With appropriate exercises, it can take
 3–6 weeks before returning to activities

Grade III

- A complete tear of the ligament
- Significant swelling and bruising around the ankle
- Pain and unable to move the ankle
- Difficult to put weight on the foot;
 will need crutches for a few weeks
- With appropriate exercises, it can take 2–3 months before returning to activities

TREATING A SPRAINED ANKLE

It is important to reduce the pain and swelling of the sprained ankle from the onset. The RICE method is an effective mode of treatment for the first 72 hours

Rest

Reduce regular exercise and activities. Avoid activities that cause pain, swelling and discomfort. Use crutches until you can walk without limping.

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Cold reduces pain and swelling. Apply ice (example: crushed ice in a wet towel, a bag of frozen vegetables or a cold pack) and wrap it around the injured ankle with a towel or elastic bandage for 15–20 minutes. Repeat every 2–3 hours during the day and after exercising the ankle.

Compression

In order to help reduce swelling, wrap the ankle with an elastic bandage as shown in the *Ankle Sprain Support and Compression* brochure. Do not apply it too tightly. Wrap the ankle during the day. Remove it for exercises and before going to bed. Continue this wrapping pattern until the swelling is completely gone.

Elevation

Gravity helps reduce swelling by draining excess fluid. Elevate the ankle above the heart when lying down. Elevate the ankle on pillows when sitting on the couch or chair.



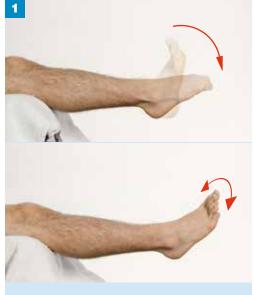
Therapeutic exercises are an important part of the treatment of an ankle sprain. These exercises will promote recovery and help prevent re-injury and/or chronic problems.

Physiotherapy exercises are the best way to:

- improve strength
- improve flexibility
- retrain balance
- return to full activity

Phase 1 EXERCISES

After 24 hours, begin this exercise program. Exercises are to be done barefoot. For assistance with these exercises or for further evaluation and treatment, consult a physiotherapist



Sitting or lying

• Slowly move the ankle up and down, and side to side

Repeat each movement 20 times



Sitting or lying

• Slowly rotate the ankle in big circles Repeat 20 times in each direction



Sitting with the injured leg outstretched in front

- Place a towel around the ball of the foot
- As you gently pull the towel towards you, push your foot downwards into the towel
- Hold 5 seconds.

Repeat 10 times



Sitting with the injured leg outstretched in front

- Place a towel around the ball of the foot
- Pull the towel towards the body Feel the stretch in the calf
- Hold 30 seconds. Relax the foot

Repeat 2 times

Apply ice and compression for 15–20 minutes after completing the exercises

Phase 2 EXERCISES

When the pain has diminished and you are able to stand on your foot, begin these exercises 1 time per day. Exercises are to be done barefoot



Sitting or lying

 Draw the alphabet with the injured foot using the big toe as a pointer.
 Make the letters as big as possible



Sitting on a chair

- Place a towel on the floor in front of you
- Place the ball of the injured foot on one end of the towel
- Place a light weight (1-3 lbs) at the opposite end of the towel
- Pull the weight with the injured foot while keeping your heel on the ground until the weight reaches the foot

Repeat 3 times in each direction



Standing, hold onto the back of a chair for balance

- Slowly, rise up onto toes, keep knees straight
- Hold 3 seconds, slowly come down onto heels
- Gradually shift more weight onto the injured leg as you go up

Do 3 sets of 10 repetitions

- Progress to going up and down on the injured leg only
- Further progress this exercise to walking on toes the length of a room (~10m) forwards and backwards

Repeat 5 times





Standing

- Place hands on a wall
- Place injured leg behind, keep knee straight and toes facing forward
- Place non-injured leg in front, bend knee
- Lean hips towards the wall
- Feel the stretch in the back of your injured leg
- Hold 30 seconds

Repeat 2 times

- Stand on injured foot and hold position for 1 minute
- Progress by throwing and catching a ball against the wall while standing on injured foot for 1 minute
- Further progress by standing on injured foot and hold position for 30 seconds with your eyes closed

After completing the exercises, apply ice and compression for 15-20 minutes

If there is no improvement within a week (example: decreased pain and swelling, improved ankle motion, walking without assistance) seek further medical attention

Phase 3 EXERCISES

Progressive return to sports after an ankle sprain is recommended when:

- You no longer have pain or swelling
- Your injured ankle has full movement iust like the other side
- The strength in your injured ankle feels as if it is similar to the other side (test this with rising onto your toes 10 times on each side)
- You are able to stand on the injured leg without difficulty for 10 seconds
- · You are able to walk without limping

Follow these gradual steps:

- **Step 1a.** Begin walking or jogging on a flat surface forwards and backwards
 - **b.** Progress to jogging in zigzags and figure 8s. When possible try to jog on more difficult surfaces such as sand, grass or in water
 - **c.** When able to perform steps 1a and 1b without any pain or swelling progress to hopping on one leg
- Step 2. When you are able to tolerate hopping on 1 leg 5 times without any pain or swelling you may begin full practice with your team. An appropriate ankle brace or taping may be used initially when returning to practice.

 Braces are useful in reducing instability during the rehabilitation phase, but should be slowly phased out as the ankle stability increases
- **Step 3.** Once you are able to complete a full practice with your team, without pain or swelling, you may return to full competition