



Practice
Plus
Group

Ankle sprains



Information for guided patient management

Provided by

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What is ankle sprain?

The foot and ankle is a complex structure, consisting of bones, ligaments and muscles/tendons. The role of ligaments is to provide stability to the foot during movement and are vulnerable to injury when the foot is forced into inversion. Inversion is when the sole of the foot turns inwards and is commonly known as 'twisting the ankle'. This will stretch or damage the ligaments on the outside of the ankle.

Less commonly, the sole of the foot can turn outwards, causing an eversion injury and this will damage the ligaments on the inside of the ankle. The term sprain is used when referring to an injury or the stretching of ligaments.

General signs and symptoms of ankle sprain

- Bruising
- Swelling
- Warm and tender to touch
- Stiffness

The severity of injury/sprain is dependent on the amount of force or stretch put upon the ligament(s).

Classification of ankle sprains:

Grade 1 – This is a mild tear of the ligament. The ankle will feel sore and may have some signs of swelling. In this case the ligament has been overstretched but has not torn.

Grade 2 – This is a partial tear of the ligament. This will cause prolonged pain and swelling and it may prevent you from putting full weight on your ankle. You may also notice bruising, which is because the tear caused some bleeding under the skin.

Grade 3 – This is a full tear of the ligament. You may feel a pop or hear a noise at the time of injury. This level of sprain can cause severe pain, swelling and bruising. This is because the ligament is no longer able to do its job and provide support. Your ankle will likely feel unstable and unable to support your body weight.

Mild ankle sprains will generally settle within a few weeks with self-management, including rest, ice, compression and elevation (RICE) and some basic exercises. If symptoms persist or you have difficulty putting weight onto the foot, then make contact with your GP or a physiotherapist for further assessment.

In the presence of an ankle sprain, the physiotherapist will routinely assess the severity of the sprain. The exercise/rehabilitation programme given, will be based on their assessment findings and aim to optimise the performance of your ankle.

What causes an ankle sprain?

- It may occur when out walking on uneven ground, wearing high heeled shoes or those with a platform or stepping off a kerb.
- Ankle sprains are common injuries in sport where there is running, jumping, direction changes or frequent stopping and starting motions. Examples include football, netball, tennis, badminton or hockey.

Once the ankle has been sprained once, it has more potential to reoccur. This is especially more likely if the individual did not do any specific or adequate rehabilitation of the ankle after initial injury.

There is an increased likelihood of ankle sprains if you have general weakness in the leg muscles. It can also be more prevalent in those with underlying conditions which cause ligament laxity or abnormal walking patterns.

Treatment - What would be considered as an adequate and specific rehabilitation programme after ankle sprain?

Injury (even mild/grade 1 injury) to the ligaments and/or cartilage can make surrounding muscles, tendons and joint position sensors less effective.

If these factors are not addressed, the ankle is at more risk of re-injury. It can also cause it to feel painful or swell in the future without obvious reason. This is because specific muscles may not be as strong and efficient in their supportive role of the ankle and will fatigue with activities which never caused a problem, prior to the injury.

In addition, when the joint position sensors do not provide as much information to the brain about the position of the ankle, this will also cause surrounding muscles to have to work harder to support the ankle.

Physiotherapists will assess the strength and support of specific muscle groups and develop a strengthening programme to address these factors. They will commonly suggest balance exercises to help you optimise the performance of the joint position sensors.

Therefore doing your exercises regularly and adequately is very important to rehabilitate the ankle after a sprain and to prevent the risk of re-injury.

Self management and basic exercises for ankle sprain

First stages after injury – the aim of this is to reduce the inflammation.

Once the swelling has settled, the aim is to restore normal movement in the ankle and to wake up some of the surrounding muscles. You can do this with general range of movement exercises and static (isometric) strengthening exercises.

An isometric/static exercise is where you apply a small amount of force to an object and hold that position (i.e. the muscles exert very little force thus only a small amount of movement is involved).

Ankle pumps

Lie on your back or sitting with legs straight and elevated
Bend and straighten your ankles
Do this for 30 seconds multiple times day

Isometric planter flexion

Have your foot rest against a wall or any object (it could be a ball)
Push your toes into the wall (or object), as if you are pushing it away.
You will feel your calf muscles tightening.
Use up to 20% of your effort + hold for up to 5 seconds
Repeat 10-15 times 2-3 times a day

Isometric eversion/inversion

Similar to above, but you are resisting the movement of turning the sole of your foot outwards (eversion) or inwards (inversion).
You can use a wall, an object or as pictured, a resistance band (if you have one)
Use up to 20% of your effort + hold up to 5 seconds
Repeat 10-15 times 2-3 times a day

These exercises may cause a small amount of discomfort but should not cause pain.
Additional exercises to target balance, stretching and strength

Calf stretch

Position the leg you are stretching straight out behind you

Use a wall or item of stable furniture for support.

Lean your body forwards and down until you feel the stretching in the calf of the straight leg.

Hold for 20-30 seconds and then relax.

Repeat a few times throughout the day

Standing calf raises

Stand with feet hip width apart and weight evenly seen both feet.

Rise onto your toes in the direction of your second toe.

In a controlled manner return to starting position

Note – avoid shifting your weight to the outside of your forefoot during heel raise

Repeat 5-15 times 1-3 times a day, as able

Walking on toes

Walk on toes for 10-30 seconds

Use support from furniture/kitchen counter if needed.

Single leg standing

Lift the other foot up and press against the inner side of the leg on which you are standing

Hold for as long as able or confident to do

Aim to increase the amount of time supporting yourself on one leg.

You can do this next to stable furniture or kitchen counter as needed.