

# Soft tissue injuries (sprains and strains)

## What are soft tissue injuries?

Soft tissue injuries include injuries to muscles, tendons and ligaments, but not bone.

Tendons are fibrous bands that hold muscles to bone. Damage to muscles or tendons by overstretching is referred to as a 'strain'. Ligaments are fibrous bands that hold bones together. Overstretching ligaments is referred to as a 'sprain'.

Sprains and strains can happen to people of all ages with varied results. They are often due to twisting or falling.

## What are the symptoms?

When soft tissues are damaged, there is usually pain, swelling and often bruising. This may also be associated with loss of movement and function, such as not being able to weight bear or use the joint. A lot of swelling can slow the healing process.

## What investigations are needed?

Depending on how the injury happened (mechanism of injury) and the features on examination, your doctor may decide to do an x-ray to rule out a broken bone (fracture).

## Treatment for sprains and strains

The initial treatment for soft tissue injuries is based on the principles of 'RICE' (rest, ice, compression and elevation) and 'Avoid HARM' (see below). These are most important in the 48–72 hours following the injury and can speed up recovery.

### Relative rest

Rest and avoid activities that cause significant pain. Depending on the injury, you may need to use crutches or a sling. Early gentle movement of the affected joint may prevent stiffness.

### Ice

Wrap ice cubes or a sports ice pack in a damp tea towel. Never put ice straight onto the skin. Place the ice pack on the affected area for 15–20 minutes up to every two hours while you are awake.

### Compression

Apply a firm bandage that does not restrict circulation or cause additional pain. The bandage should cover the whole joint or affected area.

### Elevation

Raise the limb above the level of your heart if possible. If your leg

is injured, raise it on cushions or a stool when sitting down. If your arm is injured, use a sling to keep your arm raised.

In the first 48–72 hours, avoid the following ('Avoid HARM'):

### Heat

Heat increases blood flow and swelling.

### Alcohol

Alcohol increases blood flow and swelling and can make you less aware of aggravating your injury.

### Running/activity

Protect your joint until it has healed adequately.

### Massage

Massage promotes blood flow and swelling. It can increase damage if begun too early.

## Exercises

Gentle exercises and stretching should begin immediately to minimise stiffness. Mild pain should be expected and can be managed with simple pain medications (see below); however, avoid any exercises that cause significant pain. Unless you have been told otherwise, after the first few days slowly increase your activity levels as tolerated.

In more severe injuries, you may need to avoid certain activities or movements until adequate healing has taken place. If you are unsure, ask your doctor, physiotherapist or healthcare professional.

A sports physician and/or physiotherapist can provide you with exercises to improve muscle strength, joint flexibility and balance. These exercises will help you recover, limit pain and reduce the chance of the injury recurring. Talk to your doctor, sports physician or physiotherapist about returning to specific sports or exercise you do regularly.

## Pain management

Pain medications may be required both to keep you comfortable and to assist with healing and maintaining normal movements. In most cases simple pain medications such as paracetamol are enough. Anti-inflammatory medications (such as ibuprofen) may help, but these are not suitable for some people. Ask your doctor if they are suitable for your injury.

### What to expect

You can expect full recovery from most soft tissue injuries in one to six weeks. The length of time depends on your age, general health and the severity of the injury. In very severe injuries, a splint or supportive brace may be needed initially or surgery may even be advised.

### Follow-up

Return to Cabrini ED for further medical review if your injury does not make any signs of improvement within a week. Further tests, treatment or specialist review with our Cabrini Sports Physician and/or other inpatient specialists may be recommended.

### Seeking help

**Cabrini Emergency Department (ED)** is staffed by experienced emergency doctors and nurses 24 hours a day, 7 days per week. If you have any questions about your ED treatment our qualified ED staff can be contacted on **(03) 9508 1500** at any time. If you need to return to Cabrini ED for ongoing care we would be glad to take care of you again and if this occurs within a week of your initial consultation the doctor's fee will be bulk-billed.

You can also expect to receive a phone call or SMS message from one of our emergency nurses the day after you have been discharged. The nurse will be able to clarify any aspect of your diagnosis, treatment, or follow-up.

In a medical emergency return to Cabrini ED if it is safe to do so or go to the nearest hospital emergency department or call an ambulance – dial triple zero (000).

### Want to know more?

- Contact Cabrini ED on **(03) 9508 1500**
- Ask your local doctor or healthcare professional
- Visit the Better Health Channel at [www.betterhealth.vic.gov.au](http://www.betterhealth.vic.gov.au)