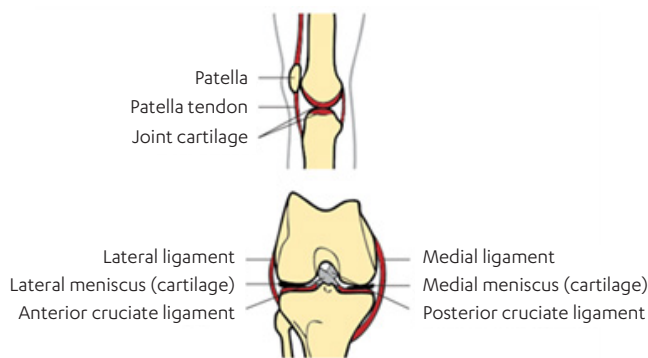


# Knee injuries

## What is a knee injury?

Knee injuries happen to people of all ages. They can have many causes and can affect several different structures that support the knee. Common knee injuries include sprains (over-stretching of the ligaments), strains (over-stretching of muscles and tendons), tearing of the cartilage (meniscus) that lines the joints and irritation of the kneecap (patellofemoral) joint (see Figure 1).

Figure 1: Knee cartilage and ligaments



## What are the symptoms?

When soft tissues such as ligaments and muscles are damaged, there is pain, swelling and sometimes bruising. Pain is usually at its worst in the first two to three days.

## Treatment

You may need an x-ray to check if you have a broken bone (fracture). In some cases, a diagnosis is not possible until the swelling goes down. You may be referred for more tests, such as an MRI, as an outpatient. Depending on the injury, you may be referred to see a specialist (sports physician and/or orthopaedic surgeon).

You may be advised to wear a leg brace (splint) for a period of time or avoid particular movements or activities until your knee heals.

Significant injuries may require an operation to fix torn ligaments or cartilage. Most injuries, however, do not need surgery.

If you have pain, simple pain medication may help (such as paracetamol). Anti-inflammatory medication (such as ibuprofen) can also help reduce swelling. Ask your healthcare professional what is best for you.

## Prevention

There are simple measures you can take to reduce your risk of a knee injury.

- Warm up before exercise
- Use activity-appropriate footwear and equipment
- Take care when exercising on uneven or slippery ground
- Follow the directions of your healthcare professional

## First aid for knee injuries

The initial treatment (first 72 hours) for knee injuries is based on the 'RICE' principles: rest, ice, compression and elevation.

### Rest

Avoid activities that cause pain. If you are unable to put weight on your leg comfortably, use crutches.

### Ice

Wrap ice cubes or a sports ice pack in a damp towel and apply it to the injured area for 15–20 minutes up to every two hours while you are awake. Never apply ice directly to the skin.

### Compression

Apply a firm bandage around the affected area. Ensure the bandage does not increase your pain or restrict blood flow.

### Elevation

When resting, raise your leg (such as with pillows) so it is above the level of your heart.

In the first 48–72 hours, avoid 'HARM' – heat, alcohol, reinjury and massage.

### Heat

Increases blood flow and swelling.

### Alcohol

Increases blood flow and swelling, and can make you less aware of aggravating your injury.

### Reinjury

Protect your joint until it has healed adequately.

### Massage

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

### Exercises

It is important to maintain flexibility and strength as you recover by doing the gentle exercises, shown below. Perform these exercises only if directed by your healthcare professional.

#### Exercise 1

Squeeze the back of your knee down into the ground and tighten your thigh muscles. Hold for five seconds. Repeat 10 times every few hours.



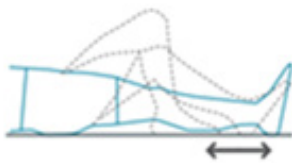
#### Exercise 2

Bend your knee and dig your heel into the ground to tighten your thigh muscles. Hold for five seconds. Repeat 10 times every few hours.



#### Exercise 3

Lying down, gently bend your knee, sliding your foot towards your bottom. Hold then relax it down again. Hold each time for three seconds, repeat 10 times, and perform the whole exercise three times a day.



### What to expect

As the pain settles down after the first few days, gradually increase your level of activity. Start with walking and gentle exercises, moving as much as you can without causing pain.

Most people fully recover in one to six weeks. If you are no better after a week, return to the Cabrini ED. For more significant injuries, a sports physician and physiotherapist can provide further assistance with healing and rehabilitation.

### 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).

**Return to Cabrini ED if you have not improved at all after a week, especially if you are unable to put weight on your leg.**

### 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)