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

Illustration showing the ligaments, tendons and cartilage in and around the knee

## What are the symptoms?

When soft tissues such as ligaments and muscles are damaged, there is pain, swelling and sometimes bruising. Pain is usually as 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 (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.

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| 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 in a damp towel or use frozen peas or a sports ice pack in a towel. Apply to the injured area for 15–20 minutes up to every two hours that 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. |

## 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.

## 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, see your local doctor or physiotherapist. For more significant injuries, a physiotherapist can also provide assistance with healing and rehabilitation.

## Exercises

It is important to maintain flexibility and strength as you recover by doing the gentle exercises, shown in Figure 2. 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

Bend your knee up and down as far as comfortable. Repeat 10–20 times every few hours.



Seeking help

In a medical emergency call an ambulance – dial triple zero (000).

See your local doctor, physiotherapist or healthcare professional if you have not improved at all after a week, especially if you are unable to put weight on your leg.

For health advice from a registered nurse you can call NURSE-ON-CALL 24 hours a day on 1300 60 60 24 for the cost of a local call from anywhere in Victoria.\*

NURSE-ON-CALL provides access to interpreting services for callers not confident with English.

\* Calls from mobiles may be charged at a higher rate.

## Want to know more?

* Ask your local doctor or healthcare professional.
* Contact a physiotherapist [choose.physio/findaphysio](https://choose.physio/findaphysio)
* Visit the Better Health Channel at [www.betterhealth.vic.gov.au](http://www.betterhealth.vic.gov.au).

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