

# Knee cartilage and ligament injuries

## Cartilage in the knee

There are two types of cartilage in your knee; the slippery covering on the end of your bones which helps smooth movement (articular cartilage), and the rubbery discs of cartilage which act like a cushion (the meniscus). There are 2 of these discs in the knee, a medial meniscus (inner) and a lateral meniscus (outer). The job of these cartilage discs is to act like shock absorbers and improve the structural stability of the knee joint.

## How can it be injured?

The cartilage can be injured by a traumatic event such as a sporting injury, usually involving twisting on a bent knee. The cartilage can also undergo degenerative changes as part of the normal ageing process.

## Ligaments in the knee

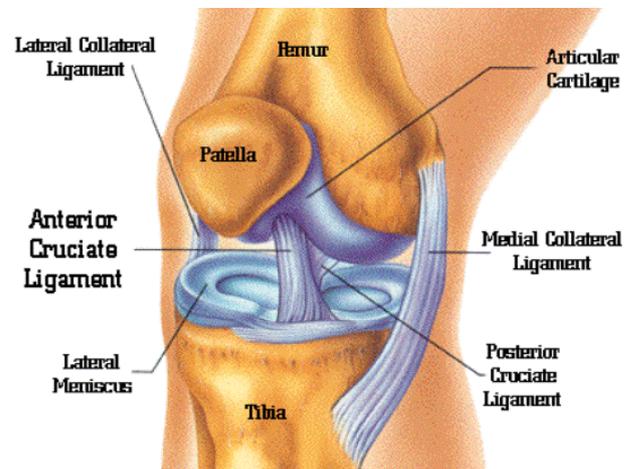
There are four main ligaments in your knee; one on either side of your knee (the collateral ligaments) and two inside your knee (the cruciate ligaments). They are tough fibrous bands that help to hold the thigh bone (femur) and lower leg bones (tibia and fibula) together.

## How can they be injured?

Ligaments are generally injured by a traumatic event such as a twist, fall, or sporting injury. The trauma can cause a strain (where a few fibres of the ligament are torn), or a complete rupture of the ligament. Through normal ageing changes in your knee joint the ligament on one side of your knee may gradually become stretched over time as the position of your knee changes.

## Symptoms

You may experience some or all of the symptoms opposite:



- Pain in the knee
- Swelling around the knee
- You maybe unable to fully straighten or fully bend the knee
- The knee might 'lock' (get stuck in one position)
- Feeling of the knee giving way or 'letting you down'
- Feeling weak in the knee due to pain

## Self management

### Ice

In the initial stages (first 72 hours) after an injury using ice can help to control pain and swelling:

- Wrap a damp cloth over the knee
- Place your ice (ice pack/frozen peas etc) on the cloth
- Rest with the leg up and ice in place for 10–15 minutes
- Repeat as needed no more than 3 times a day with at least 2 hours between each application

### Painkillers

Paracetamol and Ibuprofen (if tolerated) in tablet or cream/gel form can be useful, or your GP might prescribe other medications.

## Keep moving

Try to keep the knee moving so it does not become stiff and gradually try to get back to your normal activities. Using an exercise bike may help your movement and maintain your muscle strength, or you can try the exercises below. If you require a physiotherapy assessment you will be taught an individualised exercise programme that is specific to your problem.

If your symptoms do not start to ease within 3-4 weeks, or if your knee is frequently giving way or locking into a fixed position, see your GP who will be able to refer you for assessment by a physiotherapist.

## Physiotherapy

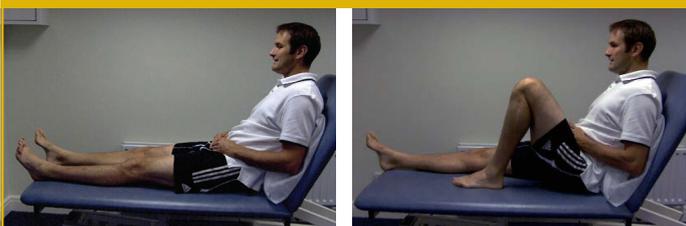
Physiotherapy treatment is likely to involve:

- Advice/education: regarding healing times, increasing activity, preventing reinjury
- Appropriate exercises: The aim of this is to:
  - Improve range of movement
  - Strengthen the muscles around the knee
  - Improve your balance
- Injections: to help settle any inflammation

We are unlikely to carry out scans and X-rays of the knee as clinical tests are often sufficient to diagnose most knee problems. If your physiotherapist thinks that you might have a significant ligament or cartilage tear you may be referred for a scan and if necessary you may be referred on to orthopaedics for a surgical opinion.

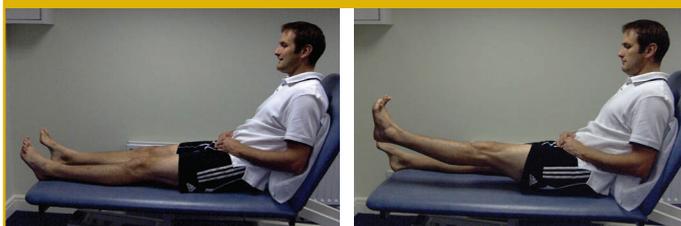
## Exercises for knee cartilage and ligament injuries

### A Heel slides



- Sitting on your bed, slide the heel of your affected leg up towards your bottom using a towel to help pull it in.
- Hold for a few seconds then straighten leg, pushing the back of your knee down into the bed.
- Repeat this exercise until your muscles feel tired. Stop if your pain significantly increases.

### B Straight leg raise



- Sitting on your bed, keep your affected leg as straight as possible.
- Lift your leg up approximately 15cm.
- Hold for a few seconds.
- Repeat this exercise until your muscles feel tired. Stop if your pain significantly increases.

## Help us get it right

If you have a complaint, concern, comment or compliment please let us know by speaking to a member of our staff. We learn from your feedback and use the information to improve and develop our services.

If you would like to talk to someone outside the service contact the **Patient Experience Team** on **0113 220 8585**, Monday to Friday 9.30am to 4.30pm or email [lch.pet@nhs.net](mailto:lch.pet@nhs.net)

**We can make this information available in Braille, large print, audio or other languages on request.**

### C Through range quads



- Sitting on a chair with a weight tied around your right/left ankle, straighten your knee.
- Hold for 10 seconds.
- Repeat this exercise until your muscles feel tired. Stop if your pain significantly increases.