

## Physiotherapy Department

# Knee Ligament Injuries

Ligaments of the knee can be partially or completely torn during an injury that causes a sudden stretch to the ligament. Following this injury it is important to try and use the knee as normal as possible to aid recovery. The knee initially will feel stiff and painful due to swelling but gentle, normal movements can help the healing process.

The aim of this information is to help you break the cycle of inflammation and swelling that begins right after injury. This swelling and inflammation can cause further damage to your knee. A few simple measures can effectively end the cycle and prevent further damage.

**For the best results, start treating your injury straight away and continue for at least 48 hours.**

The self-care measures for an injured knee can be remembered by the acronym **PRICE**:

### **P**rotection

- The best method depends on the severity of the injury.
- For minor injuries, a compression bandage is used.
- For more serious injuries, you may require crutches, a compression bandage and sometimes a brace help stabilise the joint whilst bearing weight. You should follow the guidance and instructions given to you at the time.

### **R**est

- Refrain from pain provoking activities to reduce repetitive strain on your knee.
- This gives the injury time to heal and prevents further damage.
- For minor injuries, this should be for 24 to 48 hours, but for more serious injuries this may be for longer as advised by the A&E staff.
- This is a standard treatment for most acute soft tissue injuries.

### **I**ce

- Ice reduces pain and inflammation.
- It should be applied within 5-10 minutes of injury.
- See the advice on next page on how to make and use an ice pack effectively.

## How to make and use an ice pack

### To make an ice pack:

- Place ice cubes in a plastic bag or wet tea towel.
- A good alternative is a bag of frozen peas.
- Purpose made cold packs can also be bought from your local pharmacy.

### To use the ice pack effectively:

If the skin is intact, rub a small amount of oil over the area where the pack is to sit. If the skin is damaged, or there are stitches in the area, use a plastic bag instead.

Place a cold wet flannel over the area and place the ice pack on the top. Press the pack down gently onto the injured area for best effect.

Check the colour of the skin after 5 minutes.

If the skin is bright pink or red, remove the ice pack immediately, otherwise replace the pack for another 5-10 minutes and recheck.

The ice pack can be left on for 20 minutes in total. There is no benefit to leaving it on for longer, and it may cause skin damage if you do.

Repeat every 2-3 hours (whilst awake) for 24-48 hours.

### Warning : Do not use ice/cold packs:

- Over areas of skin that are in poor condition.
- Over infected areas.
- Over areas of skin which have poor sensation.
- Over an area of skin with poor circulation.
- If you are diabetic.

## Compression

- Use a lightweight, breathable compression bandage.
- The bandage should be tight enough to support your knee without interfering with circulation.

## Elevation

- Elevating your leg helps to reduce swelling by allowing fluids that might otherwise accumulate around the area to drain away under gravity.
- Try putting your foot up on a cushion or footstool or sitting in a recliner chair.

## Walking

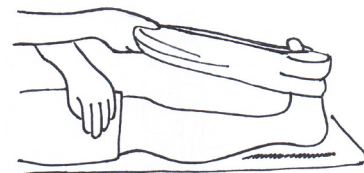
Walking will not damage the knee ligaments further. Initially this may be difficult and sometimes crutches may be given to help gradually increase the weight bearing. Gradually increasing your walking and trying to do this with a normal heel toe pattern will help aid your recovery and prevent any secondary problems. Build up your walking time gradually and rest when required to reduce swelling and pain.

## Exercises

Do not return to sports until you are fully recovered or advised to do so by your physiotherapist. Basic exercises to improve range of motion and to get your muscles working again will help your recovery. Your muscles are one of the main supporters of the knee joint and by using them this can help improve the feeling of stability and confidence in the knee. It can also help decrease the feeling of stiffness and swelling.

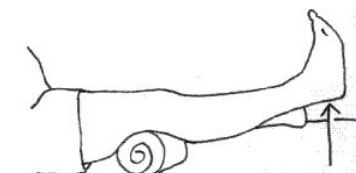
### Knee Extension with towel pull

1. Relax your foot and knee. Using the towel pull your toes up until you feel a stretch in the calf.
2. At this point pull the muscles on the front of your thigh tight and knee cap in and up towards your tummy.
3. Hold 10 seconds.
4. Keep the tension on the towel and foot but relax the knee cap.
5. Pull it back in for 10 seconds and then relax the knee cap.
6. Do this 10x all keeping the toes pulled up, then relax the whole leg.



### Inner range quadriceps (knee over roll)

1. Place a rolled up towel under your knee.
2. Tighten your thigh muscles by pushing your knee into the towel.
3. Lift your heel up off the bed by straightening your knee



### Through range quadriceps (knee extension)

1. Sit upright in the chair.
2. Tighten the muscles at the front of your thigh. Straighten your knee, lifting your heel up off the floor.



## Heel Slides

1. Lying on your back, bend and straighten your injured leg.
2. Make sure you fully straighten and bend the knees as far as you can.



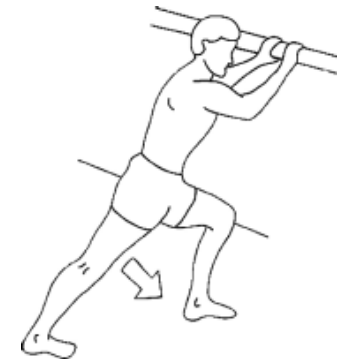
## Straight leg raise

1. Push your knee down into the bed.
2. Keep your leg completely straight.
3. Raise your leg up 5 inches.



## Calf Stretch

1. Stand in a walking position with the leg to be stretched straight behind you and the other leg bent in front of you.
2. Take support from a wall or chair.
3. Lean your body forwards and down until you feel the stretching in the calf of the straight leg.
4. Hold approximately 20 - 30 seconds - relax.



## Sit To Stand

1. Sitting with your arms crossed
2. Stand up and then sit down slowly on a chair.



## Recovery

Recovery from soft tissue injury of the knee largely depends upon the severity of the sprain. Simple sprains can take at least 6 weeks to improve but can sometimes take weeks and months to improve in greater degrees of ligament sprain.

## Seek Medical Attention

- If the knee becomes hot or red and swollen
- If the leg below the knee becomes swollen
- If the calf becomes painful or tight
- The knee becomes locked and you are not able to straighten it due to a feeling of being blocked

## Web Address

<http://www.cht.nhs.uk/services/clinical-services/physiotherapy-outpatients/patient-careinformation/>

## QR Code



If you have any comments about this leaflet or the service you have received you can contact :

**Secretary  
Physiotherapy Department  
Huddersfield Royal Infirmary**

**Telephone: 01484 342434**

[www.cht.nhs.uk](http://www.cht.nhs.uk)

If you would like this information in another format or language contact the above.

Potřebujete-li tyto informace v jiném formátu nebo jazyce, obraťte se prosím na výše uvedené oddělení

Jeżeli są Państwo zainteresowani otrzymaniem tych informacji w innym formacie lub wersji językowej, prosimy skontaktować się z nami, korzystając z ww. danych kontaktowych

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ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਉਪਰੋਕਤ ਵਿਭਾਗ ਵਿੱਚ ਸਾਡੇ ਨਾਲ ਸੰਪਰਕ ਕਰੋ।

اگر آپ کو یہ معلومات کسی اور فارمیٹ طرزبان میں درکار ہوں، تو  
برائے مہربانی مندرجہ بالا شعبے میں ہم سے رابطہ کریں۔

"إذا احتجت الحصول على هذه المعلومة بشكل مغاير أو مترجمة إلى لغة مختلفة فيرجى منك الاتصال بالقسم  
المذكور أعلاه"