

Acute knee injury

This leaflet provides general information and advice after a knee injury. There are some simple exercises that should help.

What should you do after a knee injury?

Immediately after a knee injury you should reduce the pain and swelling with rest, ice, compression and elevation. It is also important to regain the movement as soon as possible. When the pain and swelling has reduced and you have almost full movement you can work on strengthening the muscles around your knee.

Immediate knee injury management

Rest: Avoid activities and movements that increase pain during the first few days after the injury. Limit your walking for the first 48 hours but then progress walking indoors and outdoors as comfort allows.

Movement: After a rest period of 48 hours, start gentle exercises, this will accelerate the healing process.

Ice: Apply ice to the injured area, this may help to reduce the pain. Apply the ice for 20 minutes every 2 hours (use an ice pack or a bag of frozen peas wrapped in a damp towel, to protect your skin).

Elevate: While applying the ice you can elevate your leg, this will help to reduce the swelling. This is most effective if your leg is higher than your heart.

Crutch or walking stick: If you have been advised or your knee is very painful and swollen you may benefit from using a crutch. This may help you to walk without limping. If you are using only one crutch it is important you hold it in the **opposite** hand of your injured knee.

Compression: Applying external pressure using taping or bandages will help with the pain and swelling. You want it be snug but not too tight, as it may hamper the blood circulation to your foot.

Exercise: It is important to be as active as possible without making the pain or swelling in your knee worse. Continue to exercise the rest of the body, this can improve your motivation and increase the blood supply to the affected area.

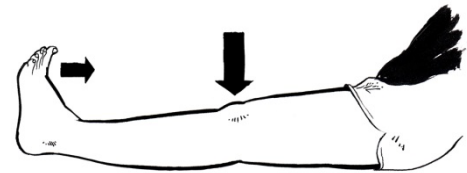
What is the outlook?

Most knee injuries recover well. You will need to continue your exercises until you have full movement in your knee and full strength in your quadriceps, hamstrings (thigh) and calf muscles. You can compare the injured leg to the uninjured leg. You will have to gradually build up your exercises. It can take 6-8 weeks before you can return to your usual sports or activities. This may depend on how quickly you have managed to regain the movement and strength.

Exercises to regain movement

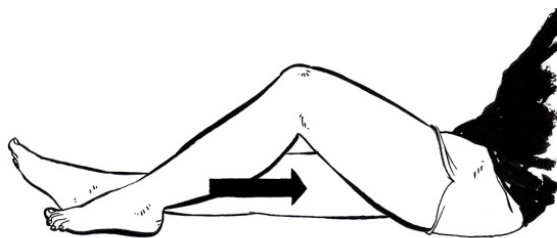
1. Knee Push Downs

Pull your ankle towards you and push your knees against the bed or floor tensing your thigh muscles. Hold for 5 seconds before relaxing. Complete the exercise until the thigh muscle fatigues.



2. Active Knee Flexion

Resting on your bed or sitting in a chair, bend the affected leg as far as possible, hold for a few seconds and relax. Complete for 5 minutes.



Exercises to increase the strength in your quadriceps (thigh) muscle

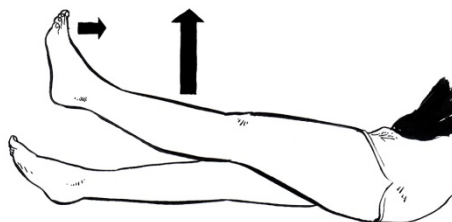
1. Inner range quadriceps strengthening

Lying on your back, place a firm cushion or rolled up towel under your affected leg. Lift the lower part of your leg so that your heel lifts off the bed. Hold for 5 seconds before relaxing. Complete the exercise until the thigh muscle fatigues.



2. Straight Leg Raise

Straighten your affected leg and pull your toes towards you and lift your leg to about 15cm above the bed, hold for a second then relax. Complete the exercise until the thigh muscle fatigues.



3. Advanced Quadriceps Strengthening

Stand with the foot of the affected leg up on a step. This foot stays on the step throughout this exercise. Step up onto the step with your other foot and then step off with this leg.





Useful Links:

Here are some videos to help you do your exercises at home; you can find them on the Royal United Hospital Bath website www.ruh.nhs.uk/knee

Static quadriceps contraction

- <https://www.youtube.com/watch?v=LEWjkwSyZOQ>

Straight leg raise

- <https://www.youtube.com/watch?v=f0IcE98zVHc>

Inner range quadriceps strengthening

- <https://www.youtube.com/watch?v=195ZL0ZD55E&feature=youtu.be>

Medium quadriceps exercises.

- <https://www.youtube.com/watch?v=oyMxWUWNou8>

Ongoing problems with your knee

If you have achieved full strength and movement of your knee and you continue to have pain, instability or you are unable to return to your usual activities you should contact your physiotherapist or doctor.

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Please contact the Patient Advice and Liaison Service (PALS) if you require this leaflet in a different format, or would like to feedback your experience of the hospital. Email ruh-tr.pals@nhs.net or telephone 01225 825656.