

Traumatic Knee Injury

Information and Exercise Leaflet for Patient's and Carers

You may have injured your knee following a fall, or after twisting or bending your knee. This can cause sharp pain or aching in or around the knee. As you get older, normal age-related changes can mean that even a small incident can cause a flare up of pain.

Symptoms

Initially after an injury, you may have pain in your knee when resting. It is normal to experience amounts of swelling and/or bruising a couple of days after an injury.

Pain can be sharp and/or an ache, it can change overtime.

Even when symptoms are improving, it is still common to get pain during activities such as walking, going up or down stairs, kneeling, turning quickly and getting out of the car/chair.

You may have pain and restriction bending and/or fully straightening your knee but if this is significantly limited, please seek medical attention (see 'should I get medical attention section below').

Causes There are many ligaments, muscles and cartilage that can get injured during a fall or twist. Knee injuries are common in sports but can also occur with minor accidents like miss-judging a step. Often, smaller injuries will heal with minimal to no medical input by following the advice provided below.

Should I get medical attention?

Please go to Accident and Emergency (A+E) or speak to your GP if you have any of the following symptoms:

- Your knee gives way causing you to fall to the floor.
- You cannot fully straighten your knee and it feels blocked.
- You are unable to put weight through your leg.
- You developed large amounts of swelling around your knee within 1-2 hours after your injury.
- Numbness or pins and needles in your leg below your injured knee.

Only continue to read if you have none of these symptoms.

Should I be resting or moving?

Recent Injury - For the first 24 to 72 hours

- Try to reduce your activity levels on the knee but avoid long spells of not moving at all.
- Try to gently move your knee forwards and backwards for 30 seconds every hour when you are awake.
- When going up stairs reduce the strain on your knee by leading with your better leg, if there is a handrail then use it. Lead with your injured leg on the way down.

After 72 hours

- Start to increase your activity levels gradually within the limits of your pain. You can follow the exercises within this leaflet to get you started.
- Avoid sports or heavy lifting until you have less pain and good movement.

Should I take pain relief?

- Over the counter pain relief can help you keep moving however, it is important to discuss this with your GP or a pharmacist if you are taking other medication.

Should I use ice or heat?

- If you have swelling in the knee, wrap crushed ice in a damp towel and hold it for 10 to 15 minutes against the part that hurts. You can do this several times a day. Make sure you use a damp towel between the ice and your skin to avoid ice burns.
- Some people find that heat is more relaxing. You can use a hot water bottle, wheat pack or a heat pad. Make sure it is not too hot and doesn't directly touch your skin. You can use this for 10-20 minutes, several times a day.
- Alternatively, you could try sport sprays, creams, and gel packs, which do a similar job.

What about work?

- There is no set time frame for when you should return to work. However, it will benefit your recovery to get back to your normal routine as soon as possible. If you have concerns about your duties, it is advised to speak to your manager or Occupational Health team if you need any adjustments such as a gradual return to work or temporary lighter duties.
- It is normal to have a slight increase in pain as you gradually increase your activity. This is why it is important to remain active prior to your return to work.

What about sports and exercise?

- Before returning to sport or exercise you should be able to fully straighten and bend your knee and be able to walk without a limp. The strength/stability of your injured knee should feel similar to your uninjured knee.
- You should take a gradual approach returning to your usually exercise routine. For example, slowly increasing walking distance and exposure to different terrain.
- It is normal to experience a small increase in pain and/or swelling that resolves within 24 hrs of exercise. If you are struggling to make progress towards returning to your normal activities within 6 weeks, you may want to consider speaking to a healthcare professional for further guidance.

Warning Signs

If you have severe pain which is getting worse over several weeks, if you are unwell with back or full leg pain, or under the age of 16 years, you should consult your doctor.

The following symptoms are very rare, but if you suddenly develop any of them, you should consult your doctor straightaway.

- Significant swelling to the leg not just the knee
- Feeling generally unwell Signs of infection (Ex. Night sweats that are not ordinary, high temperature, the joint red and hot)
- Constant night pain (unable to rest/sleep)
- Unexplained weight loss

If your symptoms fail to improve within 6 weeks with this regime you should contact your doctor for a physiotherapy referral.

If this is the case remember to bring a pair of shorts to change into, as this will help the physiotherapist diagnose your problem.

We would recommend starting with the exercises below to encourage recovery following an injury.

Stage 1 Exercises

Knee Flexion Supine



Slide your heel towards your bottom. Go as far as feels comfortable, and then return to the start position (with the leg straight). This is a good way to improve mobility to a stiff knee joint.

Repeat 10-15 times, 3 times daily, 7 times weekly

Video: <http://youtu.be/skOauZ54MLU>



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Knee Extensions Sitting



Sit upright with good posture. Slowly straighten your left leg out in front of you as far as feels comfortable. Slowly lower back to the floor, then repeat with the right leg. If you suffer any cramp in your upper thigh, do not straighten your leg fully and keep a small bend. This exercise will help mobilise your knee and improve strength in your leg.

Repeat 10-15 times, 3 times daily, 7 times weekly, Both sides

Video: <https://youtu.be/uklsfS5YTXA>

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Straight Leg Raise Single Leg Low



Lie on the floor or bed. Bend one knee with your foot resting on the floor or bed. Lift one leg about 10 inches off the floor, and return to the start position. Repeat as required. This is a hip flexor strengthening exercise.

Hold for 5 seconds, repeat 5-10 times, Both sides

Video: <https://youtu.be/kYeiyBZ4d1g>



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Stage 2 Exercises



Straight Leg Raise Single Leg Low

Lie on the floor or bed. Bend one knee with your foot resting on the floor or bed. Lift one leg about 10 inches off the floor. Hold, and return to the start position. Repeat as required. This is a hip flexor strengthening exercise.

Repeat up to 20 times, 2-3 sets, 1 times daily, 3 times weekly

Video: <https://youtu.be/kYeiyBZ4d1g>



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Supine Bridge Basic

Lie flat on your back, with your knees bent, squeeze your bottom muscles and lift your body upwards. Keep your arms by your side and use them to help you balance. Make sure you maintain good posture (do not over-arch your lower back) and contract the deep abdominal muscles by squeezing your tummy towards your spine. This exercise helps to strengthen the abdominal, lower back, gluteal and hamstring muscles.

Hold for 5 seconds, repeat 10-15 times, 2-3 sets, 1 times daily, 3 times weekly

Video: http://youtu.be/fK_xUE3OKIE



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Sit-Down Chair Squat

Stand up, and position yourself in front of a chair or stool. Bend your knees to go into a squat position, and touch your butt on the chair. Then, push up and go into the standing position. Throughout the exercise, keep your knee in-line with your foot, do not let your knee drift outwards or inwards. Also keep your hips and pelvis level as you squat, so you go down in a straight line. Be careful not to slump forwards as you squat, maintain good posture.

Repeat 10-15 times, 2-3 sets, 1 times daily, 3 times weekly

Video: <https://youtu.be/Z20XNb0VdEk>



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