

Early advice and exercises for soft
tissue injuries of

The knee

Information for
patients

Soft tissue injuries to the knee can happen for a variety of reasons and therefore, symptoms can present as fairly mild, but may cause quite severe discomfort and difficulty taking weight through your knee.

Some common symptoms that can be easily managed are:

- **Pain** - Use regular pain relief, if needed. Your GP / Pharmacist can advise you on this
- **Swelling** - Generally worse in the first 2 - 3 weeks but can last longer than this
- **Bruising** - Can last 2 - 3 weeks and may spread into the foot or lower leg
- **Difficulty taking weight through your leg** - You may need to reduce your activity levels initially but aim to keep moving around gently

It often takes at least 6 - 8 weeks for symptoms to fully settle after a significant knee injury. Returning to higher activity levels and sport may take longer. These time frames may be dependent on following early advice and rehabilitation.

First 48 hours

Protection

- It is important to protect your knee in the early stages from further stresses. This will allow the healing process to take place effectively
- Depending on the severity of your injury, this may involve the use of crutches - the professional attending you will decide whether these are needed

Rest

- Resting the knee helps the soft tissues to heal, and keep swelling and soreness to a minimum
- You may need to modify your activity and walking depending on the severity of your injury - you will be given specific advice for your knee on the level of rest needed. Some people feel more comfortable initially to walk on their toes with their knee bent due to pain and swelling. It is important to gently exercise to try and get the heel to the floor and your knee straight as soon as you are able

Ice

- This can help to limit the swelling and pain in your knee
- Place crushed ice or a bag of frozen peas wrapped in a damp towel on the injured area, ideally every 3 hours after the injury; for up to 20 minutes each time
- Check the skin regularly as ice can burn. Continued use may be required as your activity levels increase and you wean from any walking aids provided

Elevation

- The knee can swell quickly after injury
- Raising the leg will help to improve swelling and should be done immediately after an injury
- You should raise the ankle above the heart frequently, throughout the day
- Your swelling may go up and down as you become more active and spend more time with your foot down. It is important to continue elevation to help manage this until it settles



After 48 hours

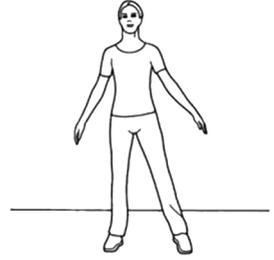
- The knee should be less swollen and more comfortable to stand on. At this point, you should aim to get your heel on the floor with your knee straight
- As your pain and swelling decreases, you will find that you may be able to wean from your crutches. This, in turn, may cause your swelling and discomfort to increase, so continued use of ice and elevation may be required

Start the exercises below as pain and swelling allows 48 hours after your injury. They may involve movements which cause discomfort over the injured area. Whilst it is important to move the ankle to prevent stiffness, do not push into pain as this can overstretch healing tissue.

Exercises

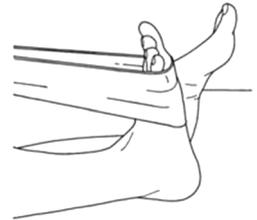
- Weight transference

Stand on both feet with your heels on the floor and knees straight. Practice moving your weight from side to side through the injured ankle.



- Calf stretch with towel

Hook a towel around the end of your foot and gently pull it towards you. Hold for 20 - 30 seconds and release. Repeat 5 - 6 times and perform every 2 hours. Do this exercise both with your knee straight and bent.



- Knee bending

Sit with your legs out in front of you. Bend your knee, moving your heel towards your bottom. Aim to regain the movement equal to the unaffected side. Repeat little and often.



- Static quads at 60°

Sit on a chair with your knees bent to 60° and your feet on the floor, and toes touching a wall. Push your toes towards the wall and heels down into the floor to tighten the muscles at the front of your thigh. Repeat to fatigue.



- Knee straightening with muscle tightening

Sit with your legs out in front of you. Place the ankle of the affected leg onto a firm object around 6 inches high. Let your knee naturally relax to allow your knee to go completely straight. You may feel discomfort at the back of your leg. As this becomes easier, tighten your muscle at the front of your knee to further straighten your leg. Repeat little and often.



- Static quads

Sit with your legs out in front of you. Pull your toes up towards you and tighten the muscles at the front of the thigh to flatten the back of your knee in to the bed. Hold for 10 seconds and repeat to fatigue.



- Straight leg raise

Sit with your legs out in front of you. Pull your toes up towards you and tighten the muscles at the front of the thigh to flatten the back of your knee into the bed. Maintaining your knee straight, lift your foot 7 - 8 inches in the air. Hold for 10 seconds, lower and then repeat to fatigue.



You may be given crutches to protect the knee when weight bearing. Discard these when your knee feels comfortable enough to walk / bear weight, normally with a limp.

If you have little or no swelling, you have recovered your movement and you can walk without limping / pain, you are ready to progress to the following:

- Gastrocnemius stretch

Stand in front of a wall with the affected leg behind you, injured leg in front, and lean hands onto the wall for support. Point your toes forward and lean onto the wall to feel a stretch down the back of your calf. Hold the stretch for 20 - 30 seconds. Repeat 5 - 6 times every 2 hours.



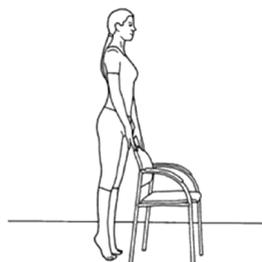
- Soleus stretch

Stand in front of a wall with your affected leg in front of you, with your toes facing forwards. Push your knee forward to stretch the muscle at the back of your leg. Make sure your heel stays on the floor. Hold the stretch for 20 - 30 seconds. Repeat 5 - 6 times every 2 hours.



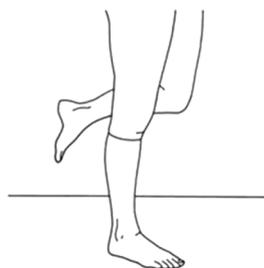
- Calf raises

Whilst standing on both legs, raise yourself up onto the balls of your feet as high as you can and then lower with control. Repeat to fatigue.



- Balance

Once you are able to stand only on the affected leg, you need to start regaining your balance. Practice standing on your affected leg with the aim to increase the number of seconds you can do until equal or better than your unaffected leg.



- Squats

Standing and holding a surface for support. Slowly and with control, bend your knees no more than 30° and then straighten up again. Make sure that you keep your knee in alignment with your toes and your pelvis level. Repeat to fatigue.



Following a knee soft tissue injury, structures that help stabilise the leg can become weak and can cause instability. This may lead to recurrent injuries; therefore, it is important that you follow the exercises to improve the balance reactions and stability, in order to minimise the risk of further injury.

Driving / Work / Sport

- Returning to driving and work will depend on your individual injury, and what your occupation is
- We recommend before returning to driving that you can perform an emergency stop without hesitation and discomfort, and inform your insurance company
- As you return to work, you may find that your swelling and discomfort increases. This is usually because as activity increases, the ability and time to elevate and place ice on the area, decreases. This change may be a more significant if you do a manual job

- Prior to returning to sport, make sure you have no pain or swelling. You should be able to bend and straighten your knee equal to the other side, stretch your gastrocnemius and soleus equal to the other side, can perform single leg calf raises to equal height and repetitions compared to the unaffected side, and have equal ability to balance. You should also be able to hop equal to the opposite side. Return to sport should be with graded return; for example, returning to light jogging / training before taking part in a match

If you have any concerns regarding your recovery, please see your GP.

Evidence based information compiled by: Suzannah Jones, Senior Physiotherapist - Leeds Teaching Hospitals

Information approved by: Andy Webster, ED Consultant - LGI



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Developed by: Accident & Emergency (Leeds General Infirmary),
Dr Andrew Webster and Suzannah Jones, Senior Physiotherapist
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