

Children's Knee Injury – Soft Tissue

Information for Patients

What is a knee soft tissue injury?

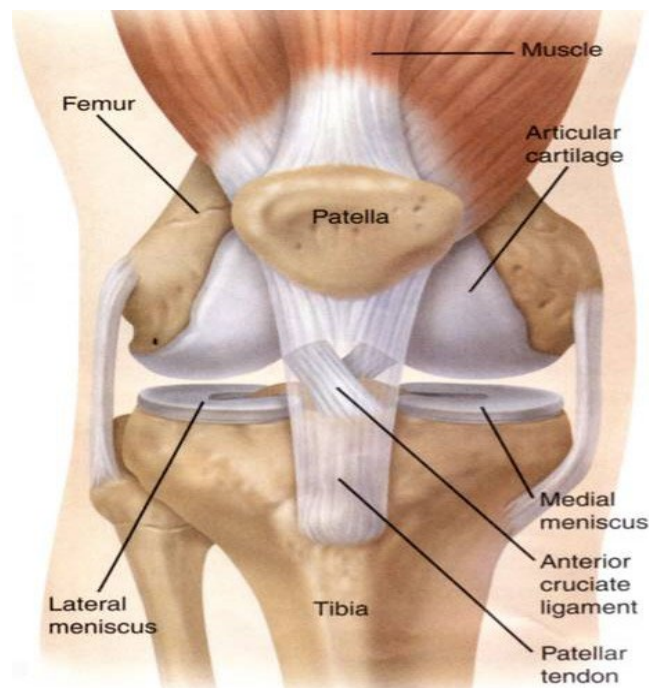
The knee is a strong joint designed to withstand lots of sports and activities. Your knee is stabilised by;

Ligaments – strong bands of tissue that connect one bone to another and help hold the knee joint together.

Muscles – surround the knee joint and help the ligaments do their job.

Meniscus – This is the cartilage inside your knee which acts as a shock absorber.

A knee soft tissue injury is an injury to one or some of these structures but not the bone. This injury typically happens when you accidentally twist or turn your knee in an awkward way, or if someone knocks into your knee awkwardly. This can lead to pain, swelling and bruising which may make it sore to move your knee and walk.



What if I need pain relief?

To manage your pain and keep your knee moving it is advised that you initially take regular simple pain relief. This can be bought over the counter from a pharmacist. If you have any allergies or conditions which affect the use of pain relief or any questions or concerns please seek advice from your GP or a pharmacist.

What is the best treatment?

Immediately after a knee injury it is important to manage it correctly, it is very important to keep your knee moving as best as possible as well as trying to reduce the pain and swelling.

The current guidance on treating soft tissue injuries follows PEACE and LOVE principles;

P		PROTECTION Avoid activities and movements that increase pain during the first few days after injury.
E		ELEVATION Elevate the injured limb higher than the heart as often as possible.
A		AVOID ANTI-INFLAMMATORIES Avoid taking anti-inflammatory medications as they reduce tissue healing. Avoid icing.
C		COMPRESSION Use elastic bandage or taping to reduce swelling.
E		EDUCATION Your body knows best. Avoid unnecessary passive treatments and medical investigations and let nature play its role.
&		
L		LOAD Let pain guide your gradual return to normal activities. Your body will tell you when it's safe to increase load.
O		OPTIMISM Condition your brain for optimal recovery by being confident and positive.
V		VASCULARISATION Choose pain-free cardiovascular activities to increase blood flow to repairing tissues.
E		EXERCISE Restore mobility, strength and proprioception by adopting an active approach to recovery.

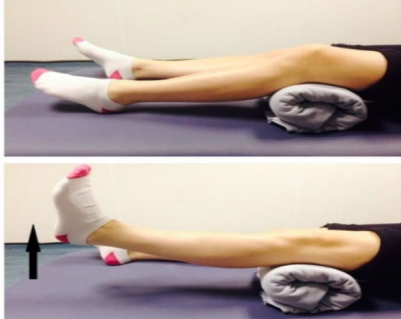
Rehabilitation and recovery

If you follow this advice leaflet your injury should take around 6-8 weeks to heal. However, everyone recovers from injuries at different rates and it is dependent on the severity of the injury, the soft tissue that was involved and the presence of any other medical problems.

Weeks since injury	Goals and expectations.
0-2	<p>If you have been given a splint and/or crutches in ED use these as required in the early stages. You should attempt to wean off them within the first 48 hours and resume normal activities as soon as your knee feels comfortable and you feel able to.</p> <p>It is safe to move and put as much weight through your leg as you feel able to both with or without crutches. It is also safe to start the exercises in this leaflet right away.</p>
2-4	<p>Start to try and add in some gentle cardiovascular activity like cycling or swimming as you feel able to as well as keeping other parts of your body moving like doing core stability exercises or upper body exercises if you have access to a gym.</p> <p>If after 2-3 weeks, you are still struggling with any of the following, please contact the physiotherapy department on 0131 3121079 and ask to make a self referral;</p> <ul style="list-style-type: none">- Still having difficulty fully bending and straightening your knee- Still have significant swelling (small amounts of swelling may remain)- Are unable to put all of your weight through your leg without crutches- Have a feeling that your knee is going to give way when walking
4+	<p>Gradually progress through all of the exercises in this leaflet over the next few weeks.</p> <p>If you have followed all of the exercises within this guide and gradually built up your activity levels it is safe to start re-introducing more challenging activities such as gentle running and jumping.</p> <p>You can also start adding in more sport specific activity as you feel able to and make a gradual return to training. Remember to always be guided by your knee – a little bit of pain and or swelling that goes away quickly is normally nothing to worry about but if you are experiencing high levels of pain and or swelling that don't settle quickly you should contact the physiotherapy dept on 0131 3121079.</p>

Initial exercises

Try and start working through the following exercises as soon as you can – it is safe to start these exercises right from the day after your injury;



1. Sitting with your legs out and a roll under your injured knee, pull your toes up and lift your heel off the floor. Try and hold your knee as straight as possible for 5 seconds and then gently lower it back to the ground.

It may be difficult to fully extend your knee initially but keep working to make it go as straight as you can manage.

Repeat 3x10 times, twice a day.



2. Elevate your leg regularly, especially if you have been at school all day or doing a lot of walking around. This can be done lying on the floor with your leg up on the sofa or bed or lying on the sofa with your leg up on the arm rest. Try and keep your foot and ankle moving whilst your leg is elevated which will help reduce swelling in your leg.

Aim to have your leg elevated for approx 10-15 mins at a time.



3. Sit in a chair with both feet flat on the floor, pull your toes up and lift your foot up off the floor. Try and hold your knee as straight as possible for 5 seconds then gently lower it back to the ground.

It may be difficult to fully extend your knee initially but keep working to make it go as straight as you can manage.

Repeat 3x10 times, twice a day.



4. Practice standing on your injured leg. Initially do this at the kitchen side where you can hold on for support and try to hold your balance for 30 seconds to a minute.

Think about working your thigh and bottom muscles to keep your leg straight and strong.

You can progress this exercise by balancing on one leg whilst you are cleaning your teeth, throwing and catching a ball or looking up/down and side to side whilst standing on one leg.

Exercises progressions

Start these exercises as soon as your movement has returned and your pain has settled;



1. Stand with your back against a wall and feet about 30cm out from the wall, keep your weight even between both legs. Bend your knees into a squat position, hold for 5 seconds then stand back up again.

If you have a ball that you can put between your knees squeeze into the ball as you are sitting down and standing up. Don't worry if you don't though, this exercise can be done with or without.

Repeat 3x10 times a day.



2. Stand on the edge of a small step if you have one or just the floor on your affected leg. Push slowly up onto your toes as high as you can, hold for a couple of seconds and then slowly lower back down.

Repeat 3x10 times a day.



3. Stand on your affected leg in front of a sturdy chair. Slowly sit down into the chair until you touch it with your bottom/backs of your legs then stand back up again.

Repeat 3x10 times a day.



Stand at the bottom of your stairs or in front of a high step. Place your injured leg up on to the step and step up like in the picture, try to keep your other leg off the step then slowly step back down keeping the movement smooth and controlled.

Repeat 3x10 times each day.

Return to sports and activity

Once your knee is no longer painful and the movement is much better you can gradually return to gentle activities.

As your knee continues to feel better you can gradually return to your usual activities ensuring you warm up and cool down fully.

If you feel as though you are able to you do not have to wait for the go ahead from a health professional to return to your normal activities.

Do I require further treatment?

If you have regained full movement at your knee are able to walk and run pain free and have been able to return to your normal sports and activities you don't need any further assessment or treatment.

If you do have any concerns or are struggling to return to your normal activities please call the physiotherapy department to make a self referral.

Further advice

If you have followed all of the advice above and you are still struggling with your symptoms you can contact the physiotherapy department on details below.

Physiotherapy Team
Therapies Department,
Royal Hospital for Children and Young People,
50 Little France Crescent
Edinburgh
EH16 4SA

Telephone 0131 312 1079