

Knee injury

Emergency Department Patient Information Leaflet

Introduction

This leaflet is for people who have a soft tissue knee injury. It includes information about what a soft tissue knee injury is, how it is treated and what to do when you get home.

What is a soft tissue knee injury?

A soft tissue within the knee is a structure that helps to maintain normal movement and function, these would include the meniscus, ligaments, tendons and muscles. Each of these components has a specialised role to play in the function of the knee, thus injury to one of these can cause pain and discomfort.

What are the symptoms?

Symptoms can vary depending on which part of the knee is injured. Acute knee injuries will usually cause pain, swelling and/or bruising. It may also cause the knee to lock or give way.

X-rays do not show the soft tissues of the knee.

Healing normally takes about six weeks but everyone heals at a different rate so some injuries will take longer to heal. Healing time will also depend on how serious your injury is.

How is it treated?

- **Ice:** a cold pack (ice pack or frozen peas wrapped in a damp towel) can provide short-term pain relief. Apply this to the sore area for up to 15 minutes, every three hours and up to four times a day, ensuring the ice is never in direct contact with the skin.
- **Relative rest:** reduce activities that are making your symptoms worse, for example, the amount of time you spend on your feet.
- **Painkillers:** pain relief can help manage the discomfort in the short term. Normally painkillers bought from a pharmacist will work. If you have any questions, please speak to a pharmacist.
- **Exercise:** you should complete specific exercises that aim to increase the strength of your knee, this will help you return to activities. Please see below for suggestions of a graded exercise programme

How do I prevent further injury to my knee?

In the first 48 to 72 hours, it is important to **avoid the following:**

- **Heat** - this increases blood flow and swelling
- **Alcohol** – this increases blood flow and swelling and will slow down the healing process. It will also make it dangerous for you to start moving around
- **Running** - this may cause further damage
- **Massage** – this promotes blood flow and can increase swelling; therefore, it can increase the damage if it is begun too early

Splint (Cricket pad splint)

If appropriate for your injury, the treatment centre may have provided you with a knee splint. The splint can be removed overnight and for personal care needs. This type of splint will tend to slide down the leg. It should be fitted against your skin as the type

of material it is made of will help prevent this. Also, doing the calf strap up first will help prevent it slipping.

Exercise

When pain allows, continue to move the injured area. If you do not move the injured joint, it will become stiff and the pain will increase. Walking will help your recovery.

Stage one (three to four times a day)

Seated knee flexion and extension:

Position yourself sitting on a chair. Slowly straighten your knee so that it is fully extended and you can feel the muscles on the front of your thigh contracting. Slowly then bend your knee so that your foot moves backwards under your chair. You will then feel the muscles on the back of your thigh contracting. Repeat the whole movement 12-16 times.

Straight leg raise:

Sit or lie on your back with your leg straight. Bend the knee of your unaffected leg. Pull your toes of your affected leg towards you and keep your knee straight. Slowly lift your foot 10cm keeping your knee straight. To make this harder you can hold your leg in the position for 5 seconds. Repeat this 8 to 12 times, each leg.

Balance

Level 1: Stand holding onto a chair or firm surface. Practice standing on your previously injured ankle for up to 30 seconds. Once you have achieved this move to level 2.

Level 2: Once standing on one leg attempt to release your grip on the chair/ surface and hold for up to 30 seconds. Once you have achieved this move to level 3.

Level 3: Once standing freely on one leg without support you can attempt to close your eyes for up to 30 seconds.

Stage two exercises

Once you can easily complete the above exercises without discomfort then move onto the exercises below.

Sit to stand

Position yourself sitting in a chair with your arms across your chest and your feet flat on the floor, shoulder width apart. Slowly lean forwards and stand up without using your arms. Once in a standing position slowly sit back down to the chair in a controlled manner. Repeat this eight to 12 times, three times a day.

Bridge

Lie on your back. Bend your knees. Keep your feet flat on the floor. Raise your hips off the floor so that your body forms a straight line from your shoulders to your knees. As you lift, you should squeeze your bottom muscles. Repeat this eight to 12 times, three times a day.

Step up

Stand facing a step. Step up onto the next step with your affected limb. Lift your other foot off the floor, then place it next to the other foot. Slowly lower your unaffected foot towards the floor then bring your affected leg/foot down. Repeat for the opposite limb. Repeat this eight to 12 times, three times a day.

Developing dynamic ankle control required for sports

Level 1: Walk on the spot on a soft surface e.g., a cushion under a mat. Look straight ahead while staying upright.

Level 2: Attempt to stand on one leg on the uneven surface holding it for up to 30 seconds using your good leg first.

Level 3: Attempt level 2 exercises but closing your eyes. Again, try the good one first to see how hard it is.

Developing core control required for sports

Level 1: Stand with one foot in front of the other, with your hands together. Swing your arms in a figure eight in both directions for 1-2 mins and as able.

Level 2: As level 1 but bring your feet so they are touching toe to heel.

Level 3: As level 1/2 but with your eyes closed.

Stage three exercises

Once you can easily complete the above exercises without discomfort then move onto the exercises below.

Step down

Start by standing on a step, facing down the steps. Keep one foot on the step, letting the other hang loosely off the step. Slowly start to lower your hanging foot towards the floor by bending the knee of the standing leg (always keeping your hips level, ensuring that the knee stays above your ankle and is not moving toward the other knee), then return to the starting position. Repeat for the opposite limb. Repeat this eight to 12 times, three times a day.

Single leg sit to stand

Position yourself sitting in a chair with your arms across your chest and your affected limb foot on the floor, with your unaffected leg

elevated off the ground. Without the use of your arms (and without moving your legs) lean your body forward until your nose is above your knee, then stand up. Slowly lower yourself back into the chair again without the use of your hands.

Stage four exercises

Once you can easily complete the above exercises without discomfort then move onto the exercises below.

Jumping

Level 1: Position yourself on a firm surface with your feet shoulder width apart. Practice jumping on the spot, landing softly and quietly to increase your ankle control.

Complete this eight to 12 times for three sets, every other day. Once you have achieved this with minimal/nil discomfort then move to level 2.

Level 2: Position yourself on a firm surface, standing on one foot. Practice hopping on the spot, landing softly and quietly to increase your ankle control.

Complete this for 30 to 60 seconds for three sets, every other day. Repeat with the other foot. Once you have achieved this with minimal/nil discomfort, move onto level

Level 3: Position yourself on a firm surface, standing on one foot. Practice hopping forwards and then backwards, landing softly and quietly to increase your ankle control.

Complete this for 30-60 seconds for three sets, every other day. Repeat with the other foot. Once you have achieved this with minimal/nil discomfort you can then practice hopping side to side.

What if the pain does not go?

If the pain continues after two to three weeks and you have not been given a follow up appointment, please contact your GP for further advice.

Can I find out more?

You can find out more from the following weblink:

NHS Choices

<http://www.nhs.uk/Conditions/Sprains/Pages/Introduction.aspx>

If you have any questions, or if there is anything you do not understand about this leaflet, please speak to one of our nurses. If you need help when you return home, please contact your GP.

This leaflet can be downloaded or printed from:

<http://dgft.nhs.uk/services-and-wards/accident-emergency/>

If you have any feedback on this patient information leaflet, please email dgft.patient.information@nhs.net

This leaflet can be made available in large print, audio version and in other languages, please call 0800 073 0510.

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此宣传单可提供大字版本、音频版本和其它语言版本，请拨打电话：0800 073 0510。

Ulotka dostępna jest również w dużym druku, wersji audio lub w innym języku. W tym celu zadzwoń pod numer 0800 073 0510.

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Aceasta broșura poate fi pusă la dispoziție tipărită cu caractere mari, versiune audio sau în alte limbi, pentru acest lucru vă rugăm sunați la 0800 073 0510.

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