

## Soft Tissue Injuries of the Knee

### Soft Tissue Injury

A soft tissue injury at the knee may occur if you twist the knee, during sport or due to a fall.

### The knee joint

The knee joint is a hinge type joint made up of the thigh bone (femur) and the shin bone (tibia).

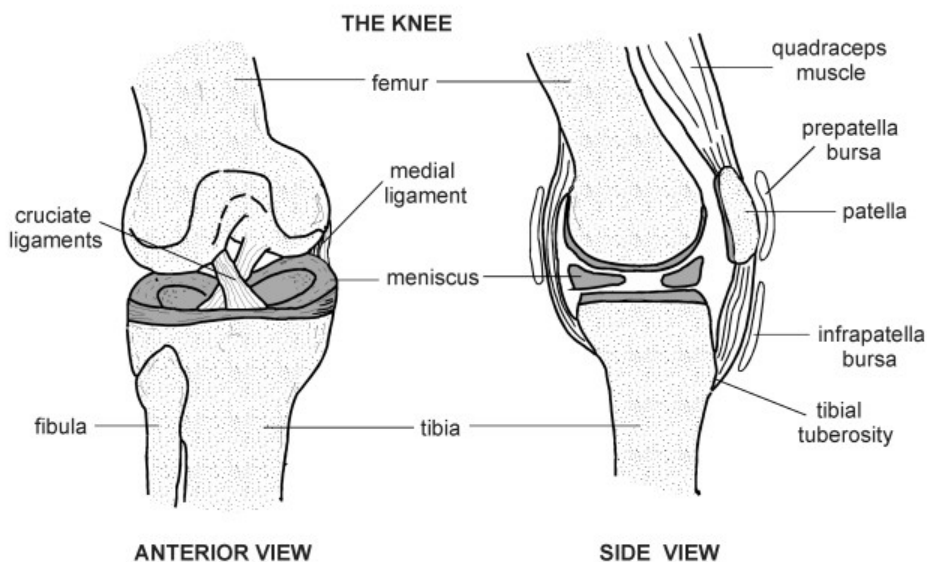
The knee joint has ligaments on the inside and the outside of the joint, (medial collateral ligament and lateral collateral ligament) and ligaments inside the joint itself, (anterior cruciate and posterior cruciate ligament).

The joint surfaces are covered in cartilage and the cartilage in the knee is called the meniscus.

The whole joint is surrounded by a sac called the capsule and this capsule is filled with fluid that lubricates the joint and provides it with nutrients.

The hamstring muscles attach at the back of the knee and the quadriceps muscles attach at the front of the knee.

Any of these structures can be injured in a soft tissue injury of the knee.



### Symptoms

- Pain in the knee.
- Swelling at the knee.
- The knee may feel warm to touch.
- Difficulty moving the knee due to pain and swelling.

If you are unable to move the knee or put any weight on it you must return to see your doctor or attend A&E.

## Treatment for soft tissue injury of the knee

### First 48 hours after injury:

- Apply ice to the knee joint. Place ice cubes into a wet towel (never apply ice directly to the skin as this can cause a burn), or you can use a bag of frozen peas. Place on the knee for 10 minutes. This reduces blood flow to the area and helps with swelling. **Do not use ice if you have a problem with your circulation in your legs.**
- Elevate the leg. This helps reduce the swelling. When sitting keep the leg up on a stool or lie on the sofa with cushions underneath your foot.
- Compress the knee joint. Sometimes a tubular bandage can be placed on the knee joint to help with swelling. This should be comfortable compression only. Your GP or pharmacist will advise you on whether this is appropriate and what size you require.
- Rest the knee joint. It is important that you do rest the knee but don't stop it moving completely as it will stiffen up.

Below are some exercises to keep the knee moving and to stop the muscles from becoming weak:

1.



Lie on your back, or sit with your leg stretched out in front of you, bend your knee as far as you can, then straighten it again.

Repeat 10 times.

2.

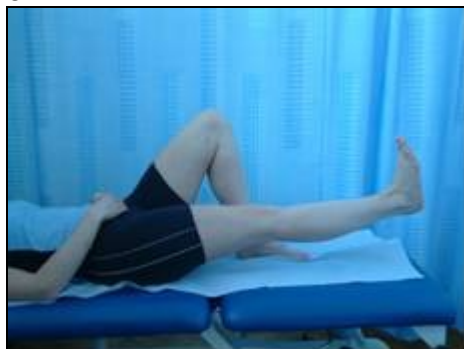


Lie on your back, or sit with your legs stretched out in front of you, pull your foot up towards you and tighten your thigh muscles, pushing the knee downwards towards the bed.

Hold for 5 seconds.

Repeat 10 times.

3.



Lie on your back. Pull your foot up towards you, tighten your thigh muscle and lift your leg off the bed about 20 cm/8 inches. Make sure you keep your thigh muscle tight and your knee straight.

Hold for 5 seconds then slowly lower your leg.

4.



Lie on your back, place a rolled towel under the back of the knee to be exercised. Pull the foot up towards you and lift the heel off the bed, keeping the back of the knee on the towel.

Hold for 5 seconds.

Repeat 5 times.

**After 48 hours following injury:**

- The pain and swelling should be starting to settle. It is important to move and use the knee as normally as possible but don't do anything that causes too much pain.
- Continue with the exercises as above.
- If the knee is still swollen you can continue to apply ice.
- Remove any compression bandage as this may restrict your movement.

**You should see your GP if:**

- Your pain increases.
- Your swelling increases rather than decreases.
- You are unable to weight bear on your injured leg.
- Your knee becomes hot and red.

Version 2

December 2006

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