

# Knee Pain

## Paediatric Management Advice Leaflet

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Knee pain can occur due to growth changes, muscular control, differences in the anatomy around the knee, over training or trauma.

### What are the symptoms?

- Pain around the joint or into the fat pad at the front
- Swelling
- Bruising
- Pain when sitting for too long (cinema knee)
- Pain when walking including going up and down stairs
- Pain when moving the knee



### Pain relief

Consult your GP or local pharmacist for advice as to which medication is suitable for your child to take.

### Important signs and symptoms to look out for

If your child experiences any of the following symptoms, please seek further urgent medical advice:

- Significant swelling around the knee
- Worsening, severe pain and /or night pain around the knee
- Night sweats
- Loss of sensation or persistent pins and needles/ numbness in the foot
- Altered colour or unusual sweating of the knee
- Constant giving way
- Locking, where you are unable to fully extend and a locking sensation when attempting to straighten the knee
- Unable to weight bear through the knee

**Only continue to read if you have none of the above symptoms.**

# Recovery and Rehabilitation

## Healing times

- Anterior knee pain is common in adolescents and usually resolves by itself.
- Traumatic knee injuries will usually heal within a few weeks with conservative management. **Swelling** and **bruising** may still be present for up to 10 days.
- Normal activity levels are usually restored after 6-8 weeks. The risk of re-injury is higher in the first 4-6 weeks.
- As your child completes the exercises provided they may notice some aching. This is normal. If this happens, re-apply ice packs to help reduce any inflammation. There is no need to stop playing or exercising unless it is causing significant pain.

## Physiotherapy

- It is important to keep your child's knee moving even when painful. Evidence has shown that walking and completing basic exercises helps the structures around the knee to heal. Try to get your child to walk as normally as possible, putting their heel down first and pushing off through their toes.
- In most cases your child will not need to be seen by a Physiotherapist for rehabilitation. Following the exercises provided in the leaflet should aid recovery.
- If after 3 weeks your child is still having problems, please contact the Paediatric Physiotherapy service on the number provided to book an assessment.

## Exercises — Phase 1—Movement and strengthening

Completing these exercises will help maintain range of movement and keep your muscles working. Try to complete the exercises 3-4 times per day and walk normally as pain allows.



Knee range of movement in supine



Either lying or sitting down, bend and straighten your affected knee as much as possible whilst keeping your foot on the floor. Repeat 10-15 times.

## Static Quadriceps

Lying down with your affected knee straight. Point your toes up towards the ceiling. Tighten your thigh muscles and push the back of your knee into the floor. Hold for 5-10 seconds. Repeat 10 times.



## Active Straight Leg Raise

Lying down with your affected knee straight. Point your toes up towards the ceiling and squeeze your thigh muscles to lift your leg up off the mat. Hold for 5 seconds. Repeat 10 times.

## Hip Abduction in Side-lying

Lying on your side with your affected knee on top. Bend your bottom knee keeping your top leg straight. Squeeze your thigh and buttock muscles and lift your leg up. Do not let your body twist or collapse in the middle. Hold for 5 seconds. Repeat 10 times.



## Exercises — Phase 2 — Progressive strengthening

Once you can complete phase 1 comfortably, progress to phase 2.



## Static Clam Hold

Lying on your side with your core muscles tight and a small gap between your waist and the floor. Keep your feet together and lift your top leg up as high as you can without rolling backwards. Hold for 30-60 seconds and repeat 3 times on each leg.

## Chair Squats

Stand with your feet hip-width apart and your toes pointed forwards. Push your hips back and sit down slowly, lightly touching your bottom to a chair, before standing straight back up again. Make sure you keep your chest up and shoulders down with your knees behind your toes (do not let them turn in). Repeat 10-15 times, 3 times per day.



## Exercises — Phase 3 — Single leg strength and balance

Once you are able to complete the exercises in phase 2 comfortably, move on to phase 3. To help prevent further injuries, it is important to work on single leg strength and balance.



### Fire Hydrant

Lean forwards from your hips and, keeping your knee slightly bent, lift your other leg up and out to the side. Try to maintain your balance on your standing leg whilst lifting the other leg up and down for 30-60 seconds. Try to keep your back straight and do not let your knee turn in. Repeat 3 times with each leg.

## Lunge

Start in a standing position. Take a big step forward and bend both knees to lower your back leg towards to floor. Then push back off your front leg to return to standing. Try to keep your chest up and core active. Do not let your front knee come forward over your toes. Do not let your knees turn in or out. Repeat 10-15 times, 3 times per day.



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