# Patella dislocation

## What is a patella dislocation?

Dislocation of the patella (kneecap) is a relatively common injury in the adolescent population and usually a traumatic event associated with either an awkward fall or direct trauma to the patella itself.



The patella sits at the front of the knee and runs over a groove in the joint when you bend and straighten your knee. When the patella dislocates it comes out of this groove. This most commonly happens towards the outside of the knee (as shown in the picture). This can injure the muscles and ligaments on the inside of the knee.

## What happens when my patella dislocates?

Often the patella will pop back into place by itself. Sometimes if it hasn't popped back by itself, it is necessary to put it back into place at the hospital - this is known as a reduction.

It may be necessary to have an x-ray to ensure the patella is in the correct position and no damage has been done to the bone behind the patella.

A brace will often be issued if it is your first-time dislocation for up to 4 weeks to help ensure the patella remains in the correct position.

## How long does it take to get better?

It usually takes 6 to 12 weeks to return to your previous activities after a dislocation of your patella.

## How can I help manage my condition?

- Relative Rest: In the first couple of weeks after injury, reduce the amount you move around to allow the pain and swelling to settle.
- Elevate the injured leg when resting to help reduce swelling.
- Using painkillers to provide short term relief. Discuss these with your General Practitioner (GP), pharmacist or healthcare professional.

- Cold packs: A cold pack (ice pack or frozen peas wrapped in a damp towel) can provide short term pain relief. The ice must never be in direct contact with the skin. Apply an ice pack for 5 to 10 minutes two to three times a day. Make sure you place a damp towel between the ice and your skin to prevent an ice burn. Further information can be found on the NHS Inform website.
- Early weight bearing (putting weight through your injured leg whilst wearing the brace) • helps increase the speed of healing.
- Early movement of the ankle and foot is important for circulation. These exercises will • help with the healing process.
- Avoiding or decreasing the activities, which cause your pain.
- Strengthening the muscles which help in assisting the alignment of the patella and • improve stability of the lower limb.
- Try to keep active and stay at school even if you have to modify your duties •

## How can physiotherapy help?

#### Aims:

- Minimise pain and swelling
- Regain full range of movement of the knee
- Increase knee flexion
- Activate guadriceps
- Early hip/gluteal strengthening
- Restoration of normal gait pattern

| Exercise                   | Diagrams courtesy of from<br>©PhysioTools | How to do exercise sets an<br>repetitions  |
|----------------------------|---|--|
| 1. Heel Slides             |   | Lying on your back.<br>Bend and straighten your leg.<br>Repeat 5 repetitions / 3 times per day   |
| 2. Isometric<br>Quadriceps |   | Lying on your back. Place a football<br>a rolled up cushion under the injure<br>knee.<br>Push your injured knee down, pull you<br>foot and toe up, hold it for 5 to 1<br>seconds and slowly relax.<br>To make it harder, do the sam<br>exercise with a small weight aroun<br>your ankle. |

| 3. Straight Leg<br>Raise               |           | Lying on your back with one leg<br>straight and the other leg bent.   |
|--|-----------|---|
|  |           | Exercise your straight leg by pulling<br>the toes up, straightening the knee and<br>lifting the leg 20 cm off the bed. Hold<br>approx 5 seconds and slowly relax. |
|  |           | To make it harder, turn your foot<br>inwards or outwards as you lift the leg,<br>alternatively add an ankle weight to<br>increase the weight of your leg.         |
|  |           | Repeat 5 repetitions / 3 times per day.   |
| <ol> <li>Knee<br/>Extension</li> </ol> | <b>\$</b> | Sit on a chair.   |
| Extension                              |           | Pull your toes up, tighten your thigh<br>muscle and straighten your knee.<br>Hold approximately 5 to 10 seconds<br>and slowly relax your leg.                     |
|  | 11        | Repeat 5 repetitions / 3 times per day.   |
| 5. Calf and<br>Hamstring<br>Stretch    |           | Sit with one leg straight out in front of<br>you. Put a scarf or a towel around your<br>foot.   |
|  |           | Gently pull the towel and feel the<br>stretch in your calf.   |
|  |           | Hold approximately15 seconds.   |
|  |           | Repeat 5 repetitions / 3 times per day.   |
| 6. Hip<br>Abduction                    |           | Lie on your side. Keep the leg on the<br>bed bent and the upper leg straight.   |
|  |           | Lift the upper leg straight up with ankle<br>flexed and the heel leading the<br>movement.   |
|  |           | To make it harder, put an ankle weight<br>or lift the leg with foot turned outwards.  |
|  |           | Repeat 5 repetitions / 3 times per day  |
|  |           |   |
| 7. Quadriceps                          |           | Standing holding onto a support.  |
| stretch                                |           | Bend your knee and pull your heel<br>towards you bottom. Feel a   |
|  |           | stretch into your thigh. Hold for 30seconds. Repeat twice daily   |
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## Sources of information

#### patella-dislocation-english.pdf (nhsfife.org)

<u>Musculoskeletal (MSK) Therapy Services – East Sussex Healthcare NHS Trust (esht.nhs.uk)</u> <u>Dislocated kneecap - NHS (www.nhs.uk)</u>

### Important information

The information in this leaflet is for guidance purposes only and is not provided to replace professional clinical advice from a qualified practitioner.

#### Disclaimer

Please note this is a generic ESHT information sheet. If you have specific questions about how this relates to your child, please ask your doctor. Please note this information may not necessarily reflect treatment at other hospitals.

#### Your comments

We are always interested to hear your views about our leaflets. If you have any comments, please contact the Patient Experience Team – Tel: 0300 131 4731 (direct dial) or by email at: <u>esh-tr.patientexperience@nhs.net</u>

## Hand hygiene

The Trust is committed to maintaining a clean, safe environment. Hand hygiene is very important in controlling infection. Alcohol gel is widely available at the patient bedside for staff use and at the entrance of each clinical area for visitors to clean their hands before and after entering.

#### **Other formats**

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#### Tel: 0300 131 4434 Email: esh-tr.AccessibleInformation@nhs.net

After reading this information are there any questions you would like to ask? Please list below and ask your nurse or doctor.

#### Reference

The following clinicians have been consulted and agreed this patient information: MSK Physiotherapy Paediatric special interest group, Mrs L Cassidy, Advanced practitioner MSK Paediatrics, Mrs Jo-anne Dartnell Paediatric Orthopaedic Consultant Mr Kyle James Paediatric Orthopaedic Consultant

Next review date:December 2025Responsible clinician/author:Jessica Pitman, Paediatric MSK Physiotherapist

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