

## Anterior Knee Pain

### What is anterior knee pain?

Anterior knee pain is general term for a collection of conditions that cause pain in the front of the knee, at or next to the knee cap (patella). It is a relatively common problem and can arise for a number of reasons in a range of age groups. In addition to pain the knee may also click, lock or swell.

Common causes of this type of pain include:

- Patellofemoral Pain Syndrome
- Osgood Schlatter disease
- Sinding- Larsen- Johnansson disease
- Chondromalacia patella
- Hypermobility
- Patellar misalignment
- Patella Tendinopathy

	<b>Who gets it?</b>	<b>Signs &amp; Symptoms</b>	<b>Treatment</b>
Patellofemoral Pain Syndrome	Commonly Adolescents/ young adults. Overuse injury often seen in runners/ those with malalignment problems/ flat feet.	Generalised pain around the knee cap which worsens when running, cycling going up or down stairs, sitting with knees flexed or squatting.  Often bilateral, but worse in one knee.	Relative rest  Orthotics (insoles/arch supports)  Strengthening of quadriceps muscles.
Osgood Schlatter disease	Active 13-18 years during a growth spurt.  Often seen in those with strong quadriceps. It occurs at the site where the patella tendon attaches to shin bone (tibial tuberosity). Rarely this part of the bone can be pulled off by the patella tendon when the knee extends.  More common in boys than girls.	Pain will come on gradually and is often worsened with activity.  Swelling below the knee cap at the bony prominence of the knee (tibial tuberosity).  Pain can be elicited by the extending the knee against resistance or bending the knee as much as possible (hyperflexion)	Rest or modify exercise regime  Ice and simple painkillers (paracetamol). Or Ibuprofen pre / post exercise  Gradual return to exercise when pain settles.  Usually self-limiting, lasting 2-3weeks. But can be much longer on occasions  Very rarely requires surgery.

<p>Sinding- Larsen- Johnansson disease</p>	<p>Active 13-18 years during a growth spurt.</p> <p>It occurs at the site where the patella tendon attaches to knee cap (patella). Rarely this part of the bone can be pulled on by the patella tendon when the knee extends.</p> <p>More common in boys than girls.</p>	<p>Pain will come on gradually and is often worsened with activity.</p> <p>Swelling below the knee cap, above the bony prominence of the knee.</p> <p>Pain can be elicited by the extending the knee against resistance or bending the knee as much as possible (hyperflexion)</p>	<p>Rest or modify exercise regime</p> <p>Ice and simple painkillers (paracetamol +/- Ibuprofen)</p> <p>Gradual return to exercise when pain settles.</p> <p>Usually self-limiting, lasting 2-3 weeks but can be longer.</p> <p>Very rarely requires surgery.</p>
<p>Chondromalacia patella</p>	<p>It is an overuse injury seen in athletes and non-athletes.</p> <p>May be associated with patellar misalignment or imbalance in muscles around the knee.</p> <p>More common in woman.</p>	<p>Inflammation and Softening/wearing of the cartilage of the knee cap.</p> <p>Pain in the front of the knee cap and on climbing or descending stairs, lunging and squatting.</p> <p>Grating or grinding within the knee.</p>	<p>Relative rest and simple pain killers.</p> <p>Strengthening weak quadriceps muscles or physiotherapy to assist with correcting alignment.</p> <p>Patella taping</p>
<p>Hypermobility</p>	<p>Commonest in adolescent/ young adult females.</p>	<p>Pain, stiffness and clicking in the knee joint.</p> <p>Dislocation of the knee cap.</p> <p>Flexibility/recurrent dislocation and pain in other joints.</p>	<p>Simple analgesia.</p> <p>General physiotherapy</p> <p>Muscle patterning and biofeedback physiotherapy (works on specific muscle groups to reduced the patella being pulled out of place)</p> <p>Rarely requires surgery.</p>
<p>Patellar misalignment</p>	<p>Young adult females.</p> <p>Those with muscle imbalance around the knee (i.e some muscles are stronger than others so pull the knee cap out groove where it should</p>	<p>Generalised pain around the knee cap.</p> <p>Pain on climbing or descending stairs.</p> <p>Grinding/ clicking under the knee cap.</p>	<p>Relative rest and simple analgesia</p> <p>Strengthening of specific muscles around the knee.</p> <p>Ilio-tibial band stretches.</p>

	<p>sit).</p> <p>In those with laxity of the ligaments. Or tightness of the ilio-tibial band</p> <p>Those with flat feet/ malalignment of hip, knees, ankle and feet.</p>	<p>Worsening pain on sitting.</p>	<p>Orthotics/ foot arch for those with flat feet</p> <p>Rarely requires surgery.</p>
<p>Patella tendinopathy (Jumper's Knee)</p>	<p>This is an overuse injury from repeatedly jumping, landing or changing direction.</p> <p>Commonly seen in basketball, netball, volleyball players and runners and jumpers.</p>	<p>Aching pain at the lower knee cap which is worsened by exercise, especially jumping activities.</p> <p>Increased tenderness on palpation at the lower knee cap.</p> <p>Pain comes on gradually with time.</p>	<p>Ice and simple analgesia.</p> <p>Relative rest - time dependant on severity of injury(stage I-IV).</p> <p>Ultrasound therapy (ESWT) – <a href="#">Click here for ESWT info sheet</a></p> <p>Rehab programme / eccentric loading of the tendon.</p> <p>Rarely requires surgery.</p>