

## Patella Dislocation

The patella (the kneecap) is a small triangular shaped bone at the front of the knee. All four quadriceps muscles (at the front of your thigh) attach to the patella and continue on to attach to the shin bone (tibia). The patella sits within a groove on the front of the thigh bone (femur) called the trochlea, and slides along this groove during movement. This articulation is referred to as the patellofemoral joint, and is a separate joint to the larger joint between the femur and tibia. The patella's job is to improve the efficiency of the quadriceps muscle, whose main role is to extend the knee, and is vital in any activity involving the leg.

The Trochlea is a relatively shallow groove and this leaves the patella susceptible to injury. Dislocation occurs when the patella moves out of its groove towards the outside of the knee. They may occur due to a direct trauma to the knee e.g. a tackle in football, or they may be atraumatic e.g. a sudden change in direction.

Patients usually complain that the knee suddenly gave way and was associated with severe pain. They often describe a feeling of "something popping out" and swelling develops almost immediately. The patella will usually relocate itself when the knee is extended. Patients have marked tenderness around the inside of the patella where the structures have been stretched and may be unable to walk or bend the knee.

An X-ray should be performed to ensure that there is no associated fracture, but once this has been ruled out management is usually conservative i.e. non-surgical. The patient may be required to wear a Zimmer splint where the knee is braced into an extended position for several days/weeks. Treatment is then focused on managing swelling and pain, maintaining knee extension, and building the strength of the inner quads while keeping the structures on the outside of the knee loose. Recurrent patella dislocation may require surgery.

