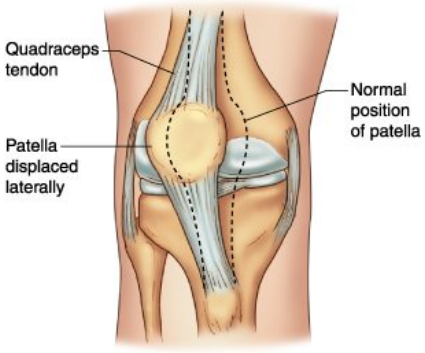
Patella Dislocations



Your kneecap (patella) slides within a groove at the bottom of the femur (thigh bone) and is held in place by the quadriceps muscles as well as ligaments and tendons attached to the inside and outside edges of the patella. The patella functions to increase the force of the quadriceps thigh muscles to straighten the knee.

Patella dislocation is usually caused by a traumatic incident such as a twisting movement or a direct blow to the knee. When this happens, the patella is moved out of its normal alignment in the groove, most commonly outwardly, stretching and damaging the muscles and ligaments on the inside of the knee.

Patella dislocation is most common in athletic teenagers and there are many factors that can predispose you to dislocating your patella such as:

- Past patella dislocation or subluxation, increased patellafemoral joint laxity or maltracking.
- A shallow femoral groove, a small patella or one that sits abnormally high.
- Significant genu valgum deformity (knock knees) or extremes of foot posture i.e. pronation
- Weak inner quadriceps muscles, poor knee control or pelvic stability.
- Tight lateral retinaculum, ITB, hip flexors, vastus lateralis and biceps femoris muscles.

Initial treatment will involve relocating the patella, if it did not occur spontaneously (quite often it will relocate by straightening the knee). An X-ray or MRI may also be used to confirm the diagnosis and identify damaged structures surrounding the kneecap or to the patella joint surface. Surgery may be required to repair significant damage to bone (eg patella joint surface) or ligament as a result of the dislocation or for recurrent dislocators when their day to day life is being interfered with.

Most first time dislocators are immobilized in an extension split for 3-6 weeks followed by physiotherapy, which will include:

- Reducing pain and inflammation and protecting the patella with taping or a patella brace. Restoring knee range of motion which may involve stretching and release of tight muscles and tendons around the knee.
- Strengthening exercises especially for the inside quadriceps muscle as well as the hip and pelvis muscles
- Improving your proprioception, agility and balance and your knee motion technique and function (eg walking, running, squatting, hopping and landing) to help prevent future dislocations.

Following an initial patella dislocation, the risk of recurrence is almost 50% if no (or insufficient) rehabilitation is received. The risk of re-injury increases substantially each time the patella is dislocated. Rehabilitation will take at least 8 to 12 weeks and decrease your chance of a recurrent dislocation.

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