

PATELLAR INSTABILITY SURGERY

What is wrong with my knee?

The kneecap (patella) is a small bone in the front of the knee. It glides up and down the groove in the thigh bone (femur) as the knee bends and straightens. The patella has a smooth coating (articular cartilage) on its underside which allows it to slide easily in this groove. The groove in the femur is called the trochlea and it is also coated with articular cartilage. When the patella comes completely out of the femoral groove it is called a patellar dislocation. Occasionally the patella will only partly come out of the groove. This is called a patellar subluxation. The patella usually dislocates or subluxes outward (laterally). As a result of one or more patellar dislocations or subluxations the knee can feel unstable. This type of problem is called patellar instability. This feeling of instability occurs because the muscles and ligaments are unable to keep the patella in the femoral groove. Patellar instability often causes pain in the knee and limits your activities.

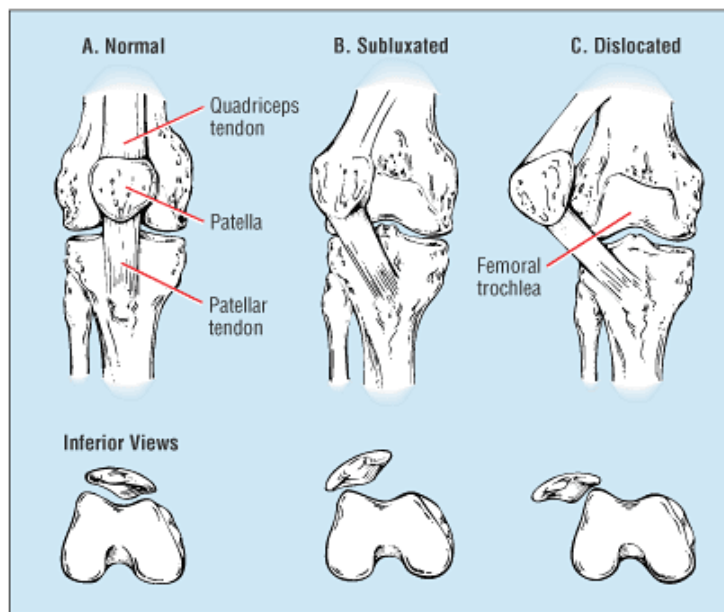


FIGURE 1. The bony and soft-tissue restraints provide stability in the normal patellofemoral joint (A). Subluxation (B) and dislocation (C) occur when the patella is torn from its normal position in the trochlear sulcus.

What causes patellar instability?

Patellar instability is usually a result of repeat patellar dislocations or subluxations. Initial patellar dislocations usually occur from a violent twist with your foot planted on the ground. The patella usually displaces laterally. Often the patella slides back into place when you straighten your knee. Some patients have patellar instability as a result of their “double-jointedness”.

How is patellar instability diagnosed?

Most patients will complain of pain in the front part of their knee especially while climbing stairs or getting up out of a chair. Frequently, the patient will describe events when their knee cap slides out of place. On examination, the knee may be swollen. The patella is usually tender and the patient has a positive “patellar apprehension”. X-rays generally show the patella sitting lateral to the groove or tilted.

How is patellar instability treated?

Treatment depends on the severity of instability. Almost always, treatment starts with physical therapy or rehab. There are several types of braces to help stabilize the patella. The goal is to strengthen your thigh muscle (quadriceps) to help stabilize your patella.

What happens if I need surgery?

Occasionally, therapy and bracing are not enough and some patients may elect to have surgery to stabilize their patella. Surgical procedures range from Arthroscopic lateral release to open patellar realignment. A lateral release cuts the tissue that attaches to the outside part of your patella (lateral retinaculum) which allows the patella to slide back into the femoral groove. This can be done arthroscopically. Often, a lateral release alone is not enough. Many patients that ultimately need surgery require an open patellar realignment surgery. This is called a tibial tubercle osteotomy. The tibial tubercle is where the patellar tendon inserts. Tibial tubercle osteotomy involves cutting the tibia tubercle and shifting it medial and sometimes anterior. The tubercle is then held in place with screws. This procedure realigns your patella so that it sits in the femoral groove. Return to full activity after a tibial tubercle osteotomy is about 4-6 months.