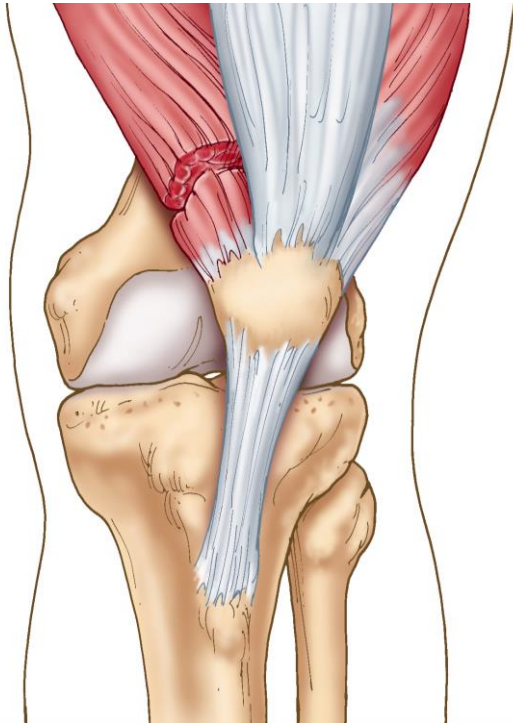


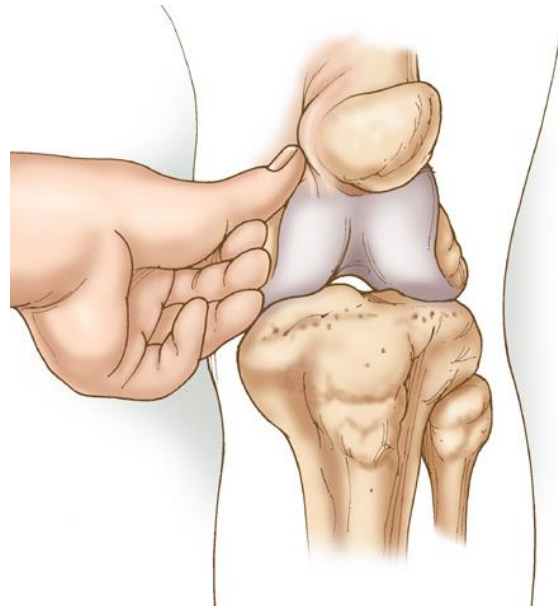
Patellar Dislocation and Subluxation

The kneecap (patella) is the bone within the tendon of the thigh muscle (quadriceps). The undersurface of this bone rests in a groove in the thigh bone (femur) in the knee joint. The patella slides back and forth in the groove as the knee bends and straightens with the balanced pull of the quadriceps muscle.



In some twisting injuries of the knee the kneecap will slide partially or completely out of the groove. If the kneecap comes all the way out of the groove the injury is called a dislocation. It is referred to as a subluxation if the kneecap only comes part of the way out. In either case, the injury causes the knee to swell and may temporarily make the thigh muscles weak. An injury that causes a subluxation or dislocation can also cause other injuries around the knee such as growth plate fractures, strains of the ligaments, bone chips, or muscle tears. A careful clinical evaluation and x-rays should be done to check for these other injuries.

The goals of treatment are to reduce the amount of fluid in the knee and rehabilitate the thigh muscles. The fluid in the knee is a result of the injury to the tissues around the knee when the kneecap moves out of place. If there is a large amount of fluid and it is causing continued pain then it may be drawn off through a needle. Drawing off the fluid usually results in a significant decrease in pain. Outpatient physical therapy and a prolonged home program of



exercises are necessary to bring the thigh muscles back to the strength and flexibility that they had before the injury. The patient wears a knee brace while the muscles are healing. Most patients are able to return to normal activities, including extracurricular sports after about four months. Requirements for return to sports are that the patient is without pain, the strength of the muscles in the injured leg is equal to the uninjured side and the injured knee has a normal range of motion.

60% of adolescents under 14 may have repeated dislocations of the patella. With multiple patellar dislocations or subluxations after physical therapy and activity modification, the need for surgery will be discussed. One of the important structures that can keep the patella in the groove is the medial patella-femoral ligament (MPFL). If the MPFL does not heal properly after a severe injury, a surgical procedure may be required to prevent arthritis from forming underneath the patella with repeated injuries.

In minor injuries the ligament can be repaired arthroscopically. In severe cases the surgeon will replace the MPFL with new tissue that usually is taken from a hamstring tendon. The rehabilitation after the surgical procedure will attempt to rebuild the muscles now that there is improved patellar stability. A return to most sports activities can be anticipated.

MPFL assists with keeping the patella in the groove

