Patellofemoral Instability

Patellofemoral instability means that your patella (kneecap) moves out of its normal pattern of alignment, sometimes suddenly and unpredictably. You may or may not experience pain between dislocations or instability events, and you may or may not have injury to cartilage with these episodes, although cartilage injury is common, particularly after a complete displacement of the patella out of its groove, otherwise known as a dislocation.

- **What is the ideal treatment for this complaint?**
  The surgeon will focus on a treatment of the underlying cause of patellar instability. If no loose bodies from fracture are evident and this is a first time PF dislocation then nonoperative treatment is recommended. This may include removal of blood and fluid from your knee (aspiration), a compression wrap on the knee, immobilization, strengthening of the entire lower extremity (core stability), bracing or taping, physical therapy and modification of activities. When the patella is extremely unstable, loose fragments are in the joint, and when another dislocation occurs soon after the first, surgery usually becomes necessary, but it is generally best to allow healing and plan surgery electively after healing of the injured tissues and restoration of function.

- **Surgery for patellar instability?**
  If recurrent patellar instability occurs, the following three statements may be useful when talking with your surgeon:

  1. Isolated lateral release is NOT indicated as an isolated treatment for patellar dislocations whether in treatment of first time or recurrent dislocations.

  2. *The primary problem allowing recurrent patellar dislocation is injury to the ligament complex on the medial side (side that touches when you put your knees together) of the knee. This ligament complex provides a check rein (firm end-point) that prevents lateral patella dislocation. The Medial Patellofemoral Ligament (MPFL) is an important part of this medial patella support complex. If you have recurrent patella lateral (to the outside of the knee) dislocations, there should be a thorough discussion with your surgeon on the pros and cons of MPFL reconstruction or, in certain circumstances, a PF expert may discuss why MPFL shortening or repair could be considered, possibly in combination with tibial tubercle transfer surgery to balance the tracking alignment of your PF join and to selectively unload damaged cartilage..*

  3. Tibial tuberosity (or tubercle) transfer (displacement of the bump on your upper shin bone where the patellar tendon attaches) to correct recurrent patellar instability is sometimes recommended in combination with restoration of medial patella support. If the tuberosity is transferred, it may be moved down (distally, when the patella is too high, or alta, with an elongated patellar tendon), to the inside (medially, when the patellar tendon is chronically pulling the patella too far laterally), forward (anteriorly, when there is need to elevate the

patella off of a distal chondrosis) or to the inside and forward (anteromedially, when there is need to improve patella tracking and take pressure off of lateral and/or distal patella chondrosis). Tibial tuberosity transfer is a powerful way to reduce or eliminate contact on a painful chondral lesion (chondrosis), with or without instability.

4. A procedure to deepen the groove for the knee cap (trochleoplasty) may be necessary for patients with severe bony abnormalities. This is rarely necessary compared to the other procedures discussed in this presentation.

5. Rotation of your upper or lower leg has also been recommended by some surgeons, but is, like trochleoplasty, rarely indicated. This type of surgery is called femoral or tibial derotation and is best reserved for patients with severe congenital rotational abnormalities.

6. "Denervation" in which nerves for sensation inside the PF joint may be released or cauterized, usually arthroscopically.

7. Repair or reconstruction of previously released retinacular supports on the lateral side of the knee is sometimes necessary to control medial subluxation in which the patella slides too far to the inside (medially) causing sudden, debilitating instability, usually following a previous realignment or patella lateral release procedure.