

# Frequently Asked Questions

## Patella or Knee Cap Questions

**Q. I have pain going up and down stairs, stiffness when I sit for periods of time and soreness around my knee cap....what is going on doctor?**

A. These are classic symptoms of patellar pain or “knee cap” related symptoms. Patients may have some or all of the following symptoms: 1) pain ascending and or descending stairs localizing to the front of the knee region, 2) clicking, popping or crepitation related to active flexing (bending) or extending (straightening) the knee, 3) discomfort sitting for periods of time with the knee bent, 4) a sense of weakness or giving way with straight ahead walking or standing, 5) difficulties arising from a squatting or kneeling position, and 6) stiffness after arising from being seated for a prolonged time period (“start up stiffness”).

**Q. Are there certain findings associated with “patellar pain”?**

A. Yes! Although some patients may have a totally normal physical examination for the knee we look for a number of things that can be associated with a sore knee cap. These include 1) tightness off your muscles including the hamstrings (back thigh muscles), quadriceps (front thigh muscles), or ITB (iliotibial band), 2) instability of the patella, 3) overall tightness or excessive looseness of the patella, 4) localized tenderness at the end of the patella (“jumpers knee”), 5) abnormal tracking or movement of the patella (“maltracking”), 6) abnormal foot mechanics, 7) referred pain from the hip or back, 8) plica syndrome, 9) Osgood Schlotter’s syndrome, and 10) being overweight to name a few causes...

**Q. My doctor says I have “chondromalacia patella”. What does he mean?**

A. This term is used interchangeable with patellar pain or symptoms referable to the knee cap. In fact, it is in its strictest sense a surgical diagnosis referring to softening or degeneration of the joint surface (articular cartilage). It is one thing if your doctor says after an office exam that you have chondromalacia patella; it is another thing if he has arthroscoped your knee and noted chondromalacia at the time of your surgical procedure. Chondromalacia has a spectrum of softening. We grade it as 0 (normal), 1 (softening, blistering), 2 (linear fissures or cracks), 3 (shag rug or “crabmeat” appearance), and 4 (exposed bone). The degree of chondromalacia can only be determined surgically.

**Q. Both of my knee caps “pop” and “click” with motion yet only one hurts. What is going on?**

A. This is common. Patients may have patellar pain symptoms with or without clicking or popping. We see some patients who come in for an evaluation who are very concerned about the clicking and popping and don’t even know that they have the same amount on the opposite knee. In this situation physical therapy and the standard conservative program of strengthening, ice, anti-inflammatory medications, activity modification and activity modification (if warranted) should take care of the problem.

**Q. Is “patellar pain” treated surgically?**

A. In general the vast majority of patients with patellar pain symptoms are treated non operatively. If we detect relative tightness of the muscles we may recommend a strengthening and flexibility program alongwith icing and anti-inflammatory medications. Instability of the patella may respond to a strengthening program, patellar “taping”, and or use of a neoprene knee sleeve with a patellar cutout an lateral buttress. If patients who have recurrent dislocations of the patella they may require one of several different types of operative procedures dependant upon their overall patellar/knee alignment. Sometimes patients may require arthroscopy to remove loose bone chips or loose bodies that can occur with patellar instability. Most athletes who have a “jumper’s knee” will respond to conservative non surgical measures which include flexibility exercises (most patients demonstrate tight hamstrings), activity modification, and a protective knee strap (“Chopat” strap). Abnormal foot mechanics may be treated with custom or semicustom orthotics (shoe inserts) which may secondarily improve knee symptoms. Plica syndrome may in unusual situations require arthroscopic treatment if the patient has failed conservative treatment. Osgood Schlotters syndrome which is characterized by a tender prominence at the upper end of the tibia (“shin bone”) where the patellar tendon inserts is common in adolescence particularly as young athletes go through a rapid growth spurt. Often it manifests with tight hamstrings reflective of a relative imbalance between rapid skeletal growth and an inability to maintain muscle flexibility.

**Q. I work out regularly in the gym and my knee cap is really sore and “grindy”. Am I doing anything wrong?**

A. Sometimes despite the right intentions patients may be “overdoing” their workouts. Remember the “rule of 2’s”...Too much, too often, too --. In other words training techniques may affect your symptoms. Overtraining, using too much weight, working out too frequently, or increasing your work out with too rapid an intensity all can contribute to patellar pain. More specifically “open chain” exercises, specifically the quad extension machine, results in a marked increase in compressive forces on your patella. In fact, the compressive forces on your patella are 10 times whatever the weight is on your ankle when you extend your knee. Although the quad extension machine is seen in all gyms, we do not advocate its use for quadriceps strengthening. Instead we recommend performing “closed chain” exercises---a closed chain exercise is one where your foot is against a pedal, the floor, or a platform---this results in simultaneous contractions of our quads, hamstrings and gluteal (buttock) muscles. Examples of closed chain exercises are stationary bicycling, elliptical, stairstepper, Nordic track, lunges, leg presses, and squats. These exercise form the foundation for quadriceps strengthening for patellar pain.

**Q. Why is weight loss important in treating patellar pain?**

A. The forces on your knee approach 3 times body weight ascending and descending stairs, and 10 times body weight with jumping. If you are 20 pounds overweight your patella sees a 200 pound force increase when you climb stairs! Lose weight if you want your knee cap symptoms to improve!

**Q. Why does my knee cap hurt more going down rather than up stairs?**

A. There are more forces on your patella descending than ascending stairs.

**Q. My doctor recommended that I have a “lateral release” procedure. What is this done for?**

A. A lateral release is a surgical procedure performed arthroscopically or through a small incision along the outer (lateral) border of the patella to reduce compressive forces on the knee cap. The procedure unfortunately is done too frequently without proper indications by many surgeons. The major reason for doing the procedure is

for excessive lateral compression or “tilt” of your knee cap. The best results are achieved when this procedure is performed for this reason. In fact, if done in patients who are excessively loose jointed it may worsen their symptoms. It should not be done as an isolated procedure to “rebalance” the patella in patients who have dislocated their patella. It may be performed however as part of a more extensive realignment of the patella. The other misconception that patients seem to have is that this procedure is a quick “fix” for their patellar pain. I tell patients that it may take 6 months to maximally benefit from this arthroscopic procedure. Of note is that although this is a technically easy procedure to perform and that patellar pain symptoms are the most common reason a patient comes to our office—isolated lateral release comprises approximately <1% of the knee surgeries that Dr. Bach performs!

**Q. My doctor recommended a “distal realignment” or “Fulkerson AMZ” (anteromedialization) procedure. What is he talking about?**

A. This procedure is performed to correct improper alignment of the patella. Particularly in patients who have instability of their patella. The surgeon makes an oblique cut in the bone (tibia) and rotates this wafer of bone to reduce the abnormal pull on the patella. This wafer of bone is held in place with two screws while the “surgically induced fracture” heals. Although this procedure is done on an outpatient basis, patients need to be on crutches for 6 to 8 weeks to allow for healing. A hinged knee brace is applied to the knee to allow for controlled motion recovery. Your doctor may periodically obtain xrays after surgery to check the healing process. Sometimes this procedure is combined with a lateral release.

**Q. My doctor says my “Q” angle is increased and that is contributing to my recurrent patellar instability. What is he talking about?**

A. The Q angle describes an angle from the hip to the patella and from the patella to the tibial tubercle. The greater the angle formed the greater the pull to the outside of the knee. If a patient has recurrent instability of their patella and an abnormally increased Q angle the surgical treatment is directed towards reducing the Q angle by performing a distal realignment, whereas if the Q angle is normal the surgical treatment is directed towards tightening the stretched tissues about the patella and releasing the tight or contracted tissues (lateral release).

**Q. If I dislocated my patella what is the likelihood that I will have recurrences?**

A. Overall the likelihood is high. Rehabilitation is an important part of your treatment. Sometimes patients may chip off a loose body which may require arthroscopic surgery to remove the loose fragment(s).

**Q. Can you tell me more about a “plica syndrome”?**

A. The plica is a fibrous band of tissue in the knee along the inner aspect of the patella. It serves no functional purpose. Most patients undergoing arthroscopic surgery are noted to have a plica shelf. In a small group of patients (runners, bicyclists, rowers, direct blunt trauma to the area) the shelf of tissue can become inflamed and thickened. It can then be a source of pain. Frequently patients will describe a band like distribution of discomfort along the inner region of the patella. They may also note a popping or snapping sensation. It can occasionally mimic a meniscal or cartilage tear. If a patient has a problematic medial plica it can easily be resected surgically with a predictable outcome. Usually patients can detect a difference in the character of pain quickly after surgery within the first 7 to 10 days.

**Q. Overall, it sounds like most knee cap problems can be treated nonsurgically. Is that correct?**

A. That's right!! Do the correct strengthening exercises. Use ice for swelling or discomfort. Focus on flexibility. Lose some weight!