

# KNEE

# VASU PAI

## PATELLOFEMORAL JOINT

### a. CHONDROMALACIA

Have the patient slightly flex the leg to be tested.

Gently push down on the patella with both thumbs, which may elicit pain in the setting of Chondromalacia.

Now, gently move the patella from side to side and try to palpate its under surface. This may elicit pain in the setting of Chondromalacia.

Hold the patella in place with your hand and ask the patient to contract their quadriceps muscle. This will force the inferior surface of the patella onto the femur, eliciting pain in the setting of Chondromalacia.

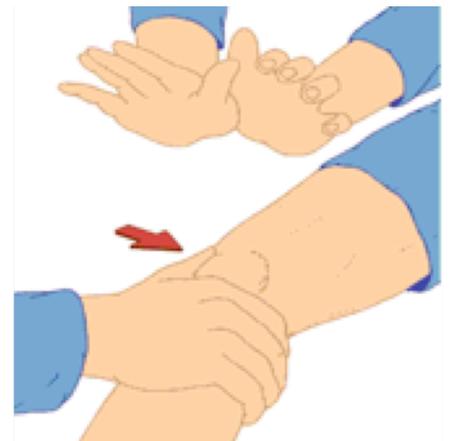
### b. APPREHENSION TEST [Fairbank's]

Explain the test to the patient supine, fully relaxed, lateral patellar glide at 0°

Now gently flex the knee, at flexion of 30° of knee. On lateral glide, apprehension is seen due to reflex quad contraction to realign the patella.

Positive apprehension is in recurrent subluxation

Between 0° and 30° of flexion, the patella is at its highest point in the trochlea. Pressure from the medial side will push the patella in a lateral direction, causing it to dislocate from the trochlear groove. This will cause pain and apprehension.



### c. PATELLAR TRACKING

From flexed position, ask the patient to extend.

Normally at extension there is slight lateral shift of the patella.

In patellar subluxation, patella deviates laterally [J sign]

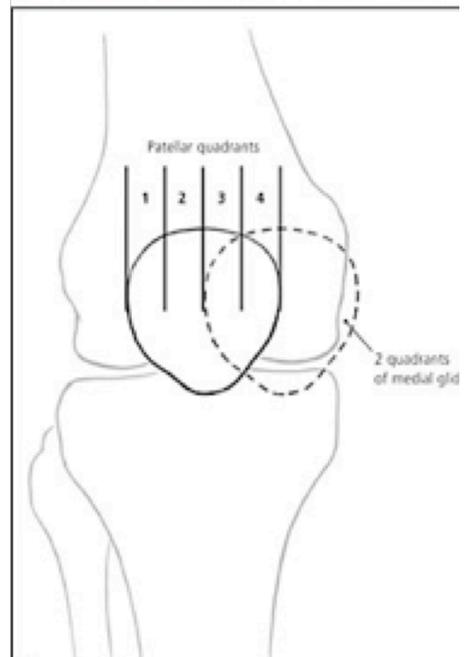
An abrupt medial deviation of the patella as the patella engages the trochlea

early in flexion, known as the "J" sign. Lateral deviation of the patella can be observed during the terminal phase of extension

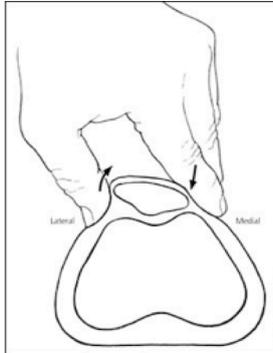


### Clinical tests for patellar mobility and position

The patellar glide, patellar tilt, and patellar grind tests should be performed as part of the routine assessment of patients with anterior knee pain



**Patellar tilt test.** This test assesses for tightness of the lateral



structures. The knee is extended and the patella is grasped between the thumb and forefinger. The medial aspect of the patella is then compressed posteriorly while the lateral aspect is elevated. If the lateral aspect of the patella is fixed and cannot be raised to at least the

horizontal position (0 degrees), the test is positive and indicates tight lateral structures. This also can be seen in patients with patellofemoral osteoarthritis.

**Patellar grind (or inhibition) test** [Clark's test]. While the patient is in the supine position with the knee extended, the examiner displaces the patella inferiorly into the trochlear groove (pictured). The patient is then asked to contract the quadriceps while the examiner continues to palpate the patella



and provides gentle resistance to superior movement of the patella. The test is positive if pain is produced, although comparison to the contralateral knee is needed to interpret the result.

