



Checklist for Clinical Examination of the Knee and Thigh

History

Ask questions pertaining to the following:

- ☐ Chief complaint
- ☐ Mechanism of injury
- ☐ Unusual sounds or sensations (grating, clicking, locking, giving out, referred pain)
- ☐ Type, quality, and location of pain or symptoms
- ☐ Change in pain symptoms since initial onset to injured area
- ☐ Previous injury
- ☐ Previous injury to opposite extremity for bilateral comparison
- ☐ Previous injury to involved and uninvolved lower extremities

If chronic, ascertain the following:

- ☐ Onset and duration of symptoms (especially swelling)
- ☐ Aggravating and easing factors
- ☐ Training history
- ☐ Footwear

Observation

- ☐ Visible facial expressions of pain
- ☐ Swelling, deformity, abnormal contours, scars, or discoloration
- ☐ Muscle tone and atrophy
- ☐ Bony prominences (e.g., Osgood-Schlatter)
- ☐ Gait, willingness to bear weight
- ☐ Structural or biomechanical abnormalities of the knee (genu varus, valgus, and recurvatum; Q-angle; patella alta and baja; squinting patella)
- ☐ Observe overall position, posture, and alignment of lower extremity.
- ☐ Compare bilaterally.

Differential Diagnosis

- ☐ Clear low back, hip, and ankle with active ROM and overpressure tests.

Range of Motion

- ☐ Perform active ROM for knee flexion and extension, medial and lateral tibial rotation.
- ☐ Check for extensor lag.
- ☐ Perform passive ROM for the same motions as for active ROM.
- ☐ Perform passive ROM for medial, lateral, inferior, and superior patellar glides.
- ☐ Make bilateral comparison.

Strength Tests

- ☐ Perform manual resistance against knee flexion and extension, as well as hip flexion and extension and ankle plantar flexion with knee extended.
- ☐ Perform isokinetic concentric and eccentric strength tests for knee flexion and extension.
- ☐ Perform isometric tests at incremental angles for patellofemoral disorders.
- ☐ Examine strength of hip and ankle muscles crossing the knee joint.
- ☐ Compare bilaterally and note any pain or weakness.

Neurovascular Tests

- ☐ Sensory (L1-S2, peripheral)
- ☐ Motor (L1-S2, peripheral)
- ☐ Distal pulse (popliteal, posterior tibial, and dorsalis pedis)

Special Tests

- ☐ Tests for joint effusion (ballotable patella, sweep)
- ☐ Patellofemoral tests (apprehension, grind, lateral glide)
- ☐ Uniplanar ligament stress tests (valgus, varus, Lachman, anterior drawer, posterior drawer, and posterior sag sign)
- ☐ Multiplanar ligament stress tests (Slocum, lateral pivot shift maneuver, Hughston's)
- ☐ Meniscal tests (McMurray's, Apley compression)

- ☐ Alignment tests (pelvic angle, hip anteversion, tibiofemoral angle, Q-angle, tibial torsion, navicular drop)
- ☐ Wilson test
- ☐ Noble compression test
- ☐ Compare bilaterally.

Joint Mobility Examination

- ☐ Tibiofemoral glides (dorsal, ventral)
- ☐ Patellofemoral glides (medial, lateral, superior, inferior)
- ☐ Tibiofibular glides
- ☐ Bilateral comparison

Palpation

Bilaterally palpate for pain, tenderness, crepitus, defects, and deformity over the following:

- ☐ Quadriceps muscle (including VMO), suprapatellar tendon, suprapatellar pouch, patella,

infrapatellar tendon, tibial tuberosity, patellar retinaculum, and superficial bursae

- ☐ Evidence of plica
- ☐ Medial femoral condyle and epicondyle, MCL, adductor tubercle, pes anserine insertion, medial joint line and tibial plateau, and medial hamstring and gastrocnemius tendons
- ☐ Lateral femoral condyle and epicondyle, LCL, fibular head, IT band, Gerdy's tubercle, lateral joint line and tibial plateau, and biceps femoris and gastrocnemius tendons
- ☐ Hamstring and gastrocnemius muscle bellies and tendons, popliteal fossa

Functional Tests