

**Specific Testing/Maneuvers
of the Knee**

Varus Stress Test

Structure/sign being tested: Integrity of the lateral collateral ligament (LCL)

Position of Patient: Lying supine with involved leg close to the side of the table

Position of examiner: Standing lateral to the patient. One hand supports to the lateral portion of the distal tibia (acting as the fulcrum), while the other hand grasps the knee along the medial joint line

Procedure: While holding the knee in slight flexion, an adduction force is applied to the knee while the distal tibia is moved medially

Positive Test Result: Increased laxity when compared bilaterally with the other knee. Ligament tests are graded as Negative (firm endpoint), 1+, 2+, 3+

 Reference # 4,9

**Specific Testing/Maneuvers
of the Knee**

Valgus Stress Test

Structure/sign being tested: Integrity of the medial collateral ligament (MCL)

Position of Patient: Lying supine with involved leg close to the side of the table

Position of examiner: Standing lateral to the patient. One hand supports to the medial portion of the distal tibia (acting as the fulcrum), while the other hand grasps the knee along the lateral joint line

Procedure: While holding the knee in slight flexion, an abduction force is applied to the knee while the distal tibia is moved laterally

Positive Test Result: Increased laxity when compared bilaterally with the other knee. Ligament tests are graded as Negative (firm endpoint), 1+, 2+, 3+

 Reference # 4,9

**Specific Testing/Maneuvers
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Posterior Drawer Test

Structure/sign being tested: Integrity of the posterior collateral ligament (PCL)

Position of Patient: Lying supine, the hip is passively flexed to 45°, and the knee is passively flexed to 90°

Position of examiner: The examiner sits on the examination table placing the patient's foot under the buttocks, providing a base of stability to fixate the tibia. The examiner grasps the proximal tibia, with the fingers overlying the joint space to access excursion, and the thumbs placed along the joint line on either side

Procedure: Palpating to make sure the hamstrings are relaxed, a posteriorly directed force is applied

Positive Test Result: Increased laxity when compared bilaterally with the other knee. Ligament tests are graded as Negative (firm endpoint), 1+, 2+, 3+

 Reference # 2,3,4,9

**Specific Testing/Maneuvers
of the Knee**

Anterior Drawer Test

Structure/sign being tested: Integrity of the anterior collateral ligament (ACL)

Position of Patient: Lying supine, the hip is passively flexed to 45°, and the knee is passively flexed to 90°

Position of examiner: The examiner sits on the examination table placing the patients foot under the buttocks, providing a base of stability to fixate the tibia. The examiner grasps the proximal tibia, with the fingers overlying the joint space to access excursion, and the thumbs placed along the joint line on either side

Procedure: Palpating to make sure the hamstrings are relaxed, an anteriorly directed force is applied

Positive Test Result: Increased laxity when compared bilaterally with the other knee. Ligament tests are graded as Negative (firm endpoint), 1+, 2+, 3+. NOTE: Lachmans test should be preferred maneuver for the ACL

 Reference # 3,4,9

**Specific Testing/Maneuvers
of the Knee**

Lachmans Test

Structure/sign being tested: Integrity of the anterior collateral ligament (ACL)

Position of Patient: Lying supine, the knee is passively flexed to 20°

Position of examiner: Standing lateral to the patient, the dominant hand grasps the proximal tibia around the level of the tibial tuberosity. The non-dominant hand grasps the distal femur just above the level of the condyles

Procedure: While the examiner supports the weight of the leg and the knee is flexed at 20°, with the hamstrings relaxed a firm anteriorly directed force is applied drawing the tibia anteriorly while a posterior force is applied to the femur

Positive Test Result: Increased laxity when compared bilaterally with the other knee. Ligament tests are graded as Negative (firm endpoint), 1+, 2+, 3+

 Reference # 3,4

**Specific Testing/Maneuvers
of the Knee**

McMurrays Test

Structure/sign being tested: Integrity of the meniscus

Position of Patient: Lying supine

Position of examiner: Standing lateral and distal to the involved knee. One hand supports the lower leg while the fingers and thumb of the opposite hand are placed along the medial and lateral joint line

Procedure: Pass one- While the tibia is maintained in a neutral position, an axial load is applied to the knee passively flexing and extending through the available ROM

Pass two- A valgus force is applied while the knee is flexing and extending. Then a varus force is applied while the knee is flexing and extending

Pass three- The examiner internally rotates the tibia, while the knee is being flexed and extended, and a varus force is applied. This procedure is repeated again with external rotation of the tibia and a valgus force

Positive Test Result: A palpable click along the joint line, a reproduction of pain from the menisci, or locking of the knee

 Reference # 3,4,9

Specific Testing/Maneuvers of the Knee

Patellar Grind Test

Structure/sign being tested: Provocative test for patellofemoral etiology of pain

Position of Patient: Lying supine with the knees extended

Position of examiner: Standing lateral to the limb being evaluated. One hand is placed proximal to the superior patellar pole

Procedure: The examiner applies a downward force to the patella in the femoral groove. The patient is then asked to contract the quadriceps muscle slowly while pressure is maintained on patella

Positive Test Result: The patient experiences pain



Reference # 4,9
