

Posterior Sag Sign

Purpose

- To assess the integrity of the posterior cruciate ligament (PCL)

Anatomy

- The PCL is attached to the posterior intercondylar area of the tibia and passes anteriorly, medially, and upward to attach to the lateral side of the medial femoral condyle. This ligament prevents backward displacement of the tibia or forward sliding of the femur

Technique

1. Have the patient lie supine on the exam table
2. The examiner raises the leg until the hip and knee are at 90° of flexion
 - a. Support the leg under the lower calf or heel in the air
 - b. Patients leg should be relaxed
3. Observe the position of the tibia in comparison to the femur

Or

1. Have the patient lie supine on the exam table
2. Place the patient's involved limb in 45° of hip flexion and 90° flexion of the knee
3. Observe the position of the tibia in comparison to the femur

Results

- Positive: posterior drop of the tibia
- Negative: tibia remains straight

Diagnostic Accuracy

- Sensitivity: .79
- Specificity: 1.0
- Likelihood ratio:
 - Positive test: LR: 79
 - Negative test: LR: .21

References

1. Cook CE, Hegedus EJ. Orthopedic physical examination tests: An evidence-based approach. Upper Saddle River, NJ: Pearson prentice Hall; 2008.
2. Rubinstein RA, Jr. et al. "The accuracy of the clinical examination in the setting of posterior cruciate ligament injuries." The American journal of sports medicine. 1994; 22(4):550-557.