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### **Explanation of Tests:**

**Pain** is recorded as an average value over the past 2 weeks, from 0-10. 0 is absolutely no pain, and 10 is the worst pain ever experienced.

**Knee Effusion** is tested using the Modified Stroke Test. An upstroke is applied to medial side of knee, followed by downstroke on lateral side. The therapist observes for movement of fluid with each stroke.

- 0: no wave produced with downward stroke
- Trace: small wave of fluid on medial side of knee
- 1+: large bulge of fluid on medial side of knee with downstroke
- 2+: Effusion returns to medial side of knee without downstroke
- 3+: inability to move effusion from medial side of knee

**Gluteus Medius Strength** is measured using a handheld dynamometer. The patient is positioned in side lying with the test knee in full extension and the test hip in slight extension. The HHD is placed just proximal to the lateral malleolus. The patient is instructed to apply a maximal isometric effort force against the HHD and the average of 3 trials is recorded for each limb.

**Quadriceps strength** is measured using a handheld dynamometer. The patient is secured in 60 degrees of knee flexion and the HHD is placed between the patient's tibia and the resistance arm, 1 inch proximal to the midline between the malleoli. The patient is instructed to apply a maximal isometric effort force against the HHD and the average of 3 trials is recorded for each limb. If available ISOKINETIC CON-CON @ 60, 180, and 240 degrees/sec, 90-30 degrees of ROM.

**Hamstring strength** is measured using a handheld dynamometer. The patient is secured in 60 degrees of knee flexion and the HHD is placed between the patient's lower leg and the resistance arm, 1 inch proximal to the midline between the malleoli. The patient is instructed to apply a maximal isometric force against the HHD and the average of 3 trials is recorded for each limb. If available ISOKINETIC CON-CON @ 60, 180, and 240 degrees/sec, 90-30 degrees of ROM.

**Timed Lateral Step Down** is performed on a step high enough to encourage the patient to achieve 60 degrees of knee flexion when the heel contacts the ground. The patient performs continuous single leg squats off the step with their hands on the hips to the beat

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of an 80 bpm metronome. Each click of the metronome signals the athlete to flex or extend the knee. The patient is instructed to maintain neutral limb alignment and the test is timed until the patient demonstrates three faulty movement pattern strikes, the patient reports pain, the inability to continue or reaches 180 seconds. A strike includes knee valgus, loss of balance, missing the beat of the metronome or hands coming off the hips. The total time is recorded prior to obtaining 3 strikes for each limb.

**Hop testing** is performed per standardized testing guidelines. The furthest hop is recorded to the nearest centimeter for each limb. Single-leg hop for distance, triple hop for distance and crossover hop for distance are measured from the heel.

**Lateral Leap and Catch** is performed by placing two lines on the floor set at a distance of 60% of the patient's body height. The patient is instructed to jump unilaterally from one foot to the other keeping to the beat of a 40 bpm metronome. The test is timed for 60 seconds or the test is timed until the patient demonstrates three faulty movement pattern strikes. A strike includes knee valgus, pelvic drop, not reaching the line or significant loss of balance.

**Y Balance Test** is performed per standardized testing guidelines. The average of 3 trials is recorded to the nearest centimeter for each limb.

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