

Special tests

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Trendelenburg test (Figure 35.29). Face the patient and ask them to place their hands on the palm of your hands for support. Then ask them to stand first on one leg, then the other. Increased pressure from the opposite hand as they take weight through the weak hip indicates a positive Trendelenburg test.

Leg length discrepancy (LLD) . The inequality may be in the hip joint, femur, tibia, ankle or foot or a combination of these. The pathology may be from the bone being too short or too long. When assessing LLD, square the pelvis. If that is not possible then place both legs in the same position. For example, if there is an adduction deformity present in the affected leg, place the good leg in the same degree of adduction. LLD can be caused by a real difference in the leg lengths (the bones are different lengths) or by a deformity that makes the leg appear short because the pelvis must be tilted to get the leg onto the ground. The first is called 'real' LLD, measured ASIS to medial malleolus. The second is called 'apparent' LLD, measured mid-line, e.g. xiphisternum to medial malleolus. Each differs in cause and therefore treatment. The LLD apparent to the patient can also be measured using wooden blocks placed under the patient's 'short' leg until the patient feels level.

Gait . Hip disease can present with an altered gait pattern. The common types of abnormal gait are described in Table 35.11 (see also Summary box 35.8).

Impingement . Two commonly performed tests relate to femoroacetabular impingement. The FADDIR test, performed with hip flexion at 90° and subsequent adduction and internal rotation (F-ADD-IR) can reproduce the hip pain in impingement. The FABER test combines hip flexion, abduction and external rotation (F-AB-ER) and can reproduce hip pain in impingement but also pain from other locations, e.g. sacroiliac. Special tests

Collateral ligaments To assess the ligaments, place the leg under your arm. Flex the knee to 30° (not more) to relax the posterior capsule (the MCL and LCL are taut in full extension and lax in flexion). Stress each ligament in turn by applying a valgus or varus force. With your index fingers simultaneously palpate over the collateral ligaments. Assess for signs of instability (excessive opening of the joint). The quality of the end point should be noted (is it firm or spongy?). Compare both sides (Figure 35.31).

Medial collateral ligament . A lax MCL or deficient lateral compartment may cause knee instability when applying a valgus stress. It is important to note that the valgus stress test should be applied with the knee in 30° of flexion. Valgus instability in full extension (0°) should alert you to a possible posterior structure injury (e.g. posterior capsule, PCL).

Lateral collateral ligament . A lax LCL or deficient medial compartment may cause knee instability when applying a varus stress in 10° of flexion. Instability in full extension (0°) suggests injury to the posterior structures. In a suspected lateral injury, evaluation of the peroneal nerve must be performed.

(d) Figure 35.32 Lachman's test: flex the knee to 15–30° and pull the proximal tibia forwards.

