
Chapter 13

Hip Gait Deviations

The multidirectional mobility of the hip makes this joint sensitive to dysfunction in all 3 planes. A further complexity to assessing the effects of hip pathology is its role as the junction between the lower limb and trunk. Abnormal hip function may be displayed by malalignment of either the thigh or pelvis (and indirectly the trunk). Pelvic motion may accompany the displacement of the thigh, remain stationary, or move in the opposite direction depending on the mobility of its articulation with the trunk. Thus, in the assessment of walking, thigh motion analysis should be separated from that of the pelvis. Observation of the thigh relative to vertical identifies what the limb is doing. The functional patterns of both segments, however, are influenced by the interplay between postural demand and hip joint mechanics (mobility and the actions of its controlling muscles).

The potential gait errors in the sagittal plane include excess flexion, limited flexion, or a past retract. Deviations in the other planes are excessive adduction, abduction, and transverse rotation (internal or external).