

3. Hip Flexibility

While the person is still supine or sidelying, we assess the flexibility of the hip joints and surrounding tissues. Why is it important to assess hip flexibility?

- Tension, contractures, and or tightness in the hip joint and/or muscles and tissues under and to the sides of the pelvis can affect the pelvic posture. As mentioned before, the pelvic posture affects the entire body.
- In our seating system, we do not want to force the hip and leg into postures that are beyond the person's joint limitations.

Hip flexibility in five postures is assessed:

- Bending each hip separately (flexion)
- Hips/legs moved towards midline (adducted)
- Hips turned in (internally rotated)
- Hips/legs spread open (abducted)
- Hips turned out (externally rotated)

Note: Instead of first describing a typical posture as we do in the other sections, we are describing the movement of hip flexion.

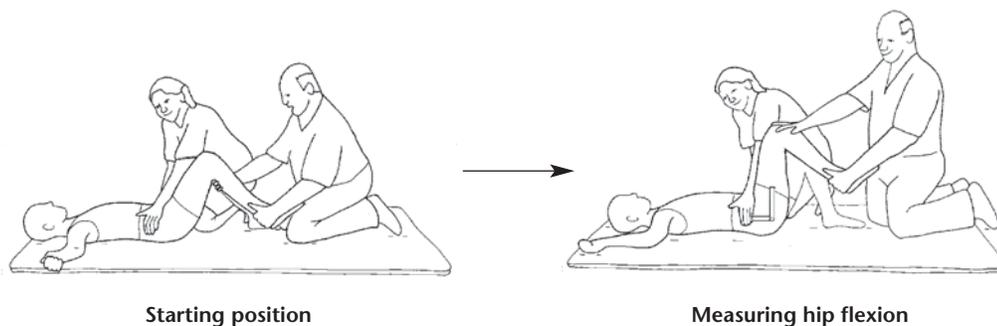
a. Bending each hip separately (flexion):

Starting position: First bend the hip up that you are *not* going to test, so that the foot is resting on the surface. This reduces the tension in the hip. Your helper feels the ASIS and PSIS (or iliac crest) and holds the pelvis in a neutral position, preventing it from moving (described on page 42).

Step 1: Bend (flex) the hip and leg up. Keep the knee bent (flexed) more than 90° to decrease the tension of the hamstrings (muscles behind the thigh). When your helper feels the pelvis starting to roll backward (posterior tilt), STOP lifting the leg.

Step 2: Measure the person's *hip flexion angle* with the *angle measure*. This angle will help to determine the seating system's *seat-to-back support angle*. (If the person is obese, it may be difficult to get an accurate measurement in supine position. Get an idea in the supine position, then measure the angle again in sitting.)

Step 3: Using the same technique, measure the hip flexion of the other leg. Is there a difference between the person's left and right hip flexion angles? If yes, re-measure to verify the difference.



Can you think of how the person's hip flexion angle might affect the seating system?