**B. 3. Hip Rotation:** video #2(slide 21 – 23)

* + - * 1. **Purpose:**

1. Develop better flexibility in hips and low back in order to move more smoothly and efficiently with your braces
2. Improve balance for reaching backward and forward in rotation
3. Develop relaxed rotational movements in hips/trunk

**b. Importance of rotation movements:**

Rotational movements at the hip/leg help us advance the leg that is moving while the other hip/leg is stable/weight bearing and carrying the weight of the body

**c**. **What happened to limit rotation of the hips?**

As we age we become less flexible in back and hips. Any challenge to movement (weakness, injury) and/or pain, esp. involving legs and trunk, causes us to tighten up and protect many areas of our body, esp. rotation of hips and back. This can often be improved over time with gentle, slow practice.

**d.** **Hip Rotation Progression**:

1. Start in Optimal standing position (OSP) – feet are slightly away from counter, hips are leaning into the counter a bit!
2. HOLD ON to the counter!
3. Minimally rotate stronger hip to press against counter – hold briefly. You may feel a pull in the front of your hip or feel slight pain in your low back. That tells you to not do too many of these in the beginning. Let that hip relax back to Optimal Standing Position
4. Do not move shoulders and head!
5. Now rotate the other hip to counter. It is as though you are pushing the counter forward with that hip
6. If you can hold on with one hand, put your other hand on your buttocks – you may feel your buttocks muscles (gluts) contract a little or a lot. You want that! When the buttocks muscle contracts the muscles in front of the hip are told by the brain to release/let go.
7. Try to hold this position longer and longer on each side. Try to achieve equal force on each side
8. Do NOT get into pain. Do NOT overdo this exercise. If you have pain don’t push as hard and don’t hold it for as long. As you attain more hip rotation the time and amount of pressure will increase as your muscles/joints release
9. Next, step back from the counter ½ step. Repeat the above.
10. Maintain symmetry!! Watch this in the mirror. Rotate one hip only as much as the other.
11. Maintain OSP -optimal standing position
12. Next, decrease amount that you are holding on
13. Now hold on with only one hand facing your mirror and watch for symmetry and amplitude
14. Gradually you should be able to do this exercise without a counter, and just free standing with no hand support
15. Do Rotations at all speeds and note reduced amplitude of your movements as speed increases
16. Now you can go to DBS recommended Hula Hoops
    1. **Challenges to Success**:
17. Scoliosis
18. Painful hips and low back from any cause
19. Weak hips and low back from any cause
20. Tightness (contracture) in any hip movements, especially hip flexion
21. Dislocating hip
22. Your brain telling you: “it can’t be done!; I will fall!; my knee won’t hold!; my body doesn’t do that!; and, and, and…”
23. These obstacles don’t mean you cannot succeed. They mean your way of doing them may need to be adapted, or work on stretching out the issue.
24. Fear