

Pelvis Pro Miniserries

Part 3: Transverse Plane

Transverse Plane and Stiffness in the Soft Tissue Structures of the Posterior Hip Capsule

- ▶ Muscles producing stability in the back of the hip are rotational muscles, and they respond well to the transverse plane. Moving in a rotational fashion decreases tension in these muscles.
- ▶ Consider moving into eccentric external rotation or concentric internal rotation before moving into concentric external rotation. Moving in enables us to move out! Think of a stuck drawer; sometimes you have to push it in before you can pull it out.
- ▶ To work the glutes, we need full internal range of motion at the hip and pelvis in order to access full external range of motion.
 - Think of this for clients with gripping that won't let go, those who are constantly releasing the obturator internus, and those where direct external rotation (concentric work like clams or bridges with a band) makes them worse.
- ▶ The femur moving forward in the socket puts a lot of pressure on anterior soft tissue structures like the labrum and the psoas. The psoas helps to hold the head of the femur back, so the forward pressure makes the psoas feel tight. Instead of working on the psoas, work on the femur positioning! Move the femur back in the socket to improve the starting point of the hip.
- ▶ Muscles control how the joints and bones align, but the alignment of our joints and bones influences which of our muscles works the hardest.

- ▶ Modify the joint alignment to optimize which muscles want to work. Break the cycle with more than release work and stretching. Change movement patterns!
- ▶ Move the femur back in the socket in the transverse plane with concentric loading and eccentric loading, working the transverse plane in a closed chain fashion.

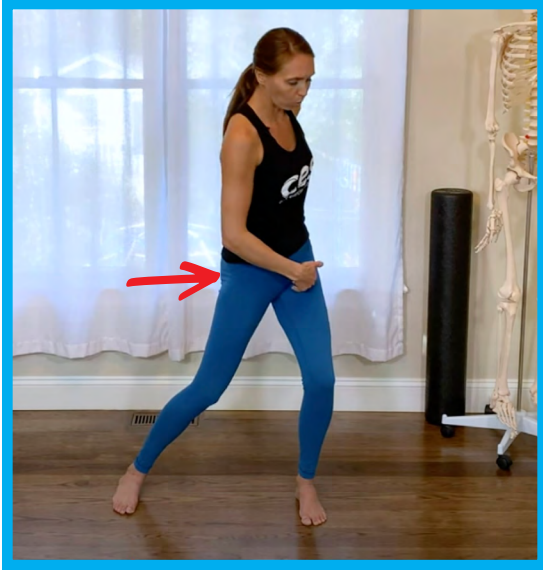
Frontal plane and transverse plane

- ▶ The pelvis needs both push and pull. It requires reciprocal motion; what one hip does, the other needs to do the opposite.

Side Lunges



- ▶ In standing, spread feet apart.
- ▶ Move to the left by pulling with the left adductor. Keep the tailbone dropped.
- ▶ Watch your pelvis. If you spill forward, you are bypassing internal rotation which leads to impingement.
- ▶ Don't let the knee wing out.



Split Stance Rotation

Great for anyone who needs some length in their deep glute muscles.



Internal rotation

External rotation

- ▶ Try pushing from the right glute.
- ▶ Then switch sides, and pull from the right adductor.
- ▶ Then, push from the left hip and glute.

Comparison

- ▶ What differences do you notice from side to side?
- ▶ Can you rotate more on one side?
- ▶ Do you flip less into an anterior pelvic tilt on one side?
- ▶ Does one glute pop out more?
- ▶ Can you feel a difference in adductor activation from side to side?
- ▶ Did you pinch/impinge more on one side?
- ▶ How do your hips feel after?

Conclusion: This tells you how much available and active closed chain internal and external rotation range you have in your hip.

- ▶ This is a great exercise to do on a road trip, or at work after you've been sitting!
- ▶ As we move into internal rotation for the hip, we lengthen the glute and encourage full range of motion so we can push away with it.

- ▶ Stand in a split stance or a small lunge stance.
- ▶ Find the hamstring to anchor your pelvis by pulling the front leg back.
- ▶ Hinge forward a little.
- ▶ Back leg is working as a kickstand.
- ▶ Front leg has 60-80% of the weight, and the knee does not move.
- ▶ Rotate internally all the way into the front leg.
- ▶ Then, rotate externally and open up all the way.

A common question I get is, "How many reps and sets of these exercises should I do?" Well, that's a great question and I'm always going to answer, "It depends." We've got a lot more learning to do to determine reps and sets for different needs and ability levels, so I hope you'll consider joining me in the full Pelvis Pro course so we can continue learning together!