1 Leg Swiss Ball Wall Squat







Full video instructions for this exercise can be found at: http://ptpete.co.nz/?p=561

Exercise Purpose:

 To strengthen your leg muscles (quadriceps, hamstrings and buttocks) and hip stability muscles (gluteus medius and minimus)

Key Points:

- Stand tall side on to the wall
- Place the outside of your right shin (top pic) against the swiss ball
- Keeping constant pressure against the ball the whole time, lift your right foot/ankle off the ground
- When looking from the side (left bottom pic) your left ankle should be in line with your right lower leg throughout the whole movement
- When squatting down on your right leg (left bottom picture) imagine that you are about to sit down on a chair – keep the pressure on the middle and heels of your right foot, stick your buttock backwards, and lower your buttock towards the floor

- Keep the centre of your left knee cap (top pic) in line (or slightly outside) your left foot's second toe
- The front of your right knee shouldn't go in front of the end of your right toes and your right heel should stay on the ground the whole time (bottom left pic)
- Maintain a neutral lumbar spine/pelvis (slight lower back curve) the whole time (bottom left pic) and keep the left and right sides of the pelvis level throughout (bottom right pic)
- From side on (bottom left pic) your shin angle and back angle should match/be parallel at the bottom of the squat
- Unless you have been instructed to by your therapist do not squat too low. You should end up approximately 1/3 of the depth of a normal 2 leg full squat
- Once you have reached the bottom, push back up through your heels and mid foot until you are fully upright again. The last 5 degrees prior to returning to upright is important. Think about the muscles on the side of your right buttock (lower left pic) during this phase
- Breathe in on the way down and breathe out on the way back up

*If you know how to then gently draw in your deep stomach muscles at the beginning of this exercise and keep them drawn in throughout

Common mistakes:

- Trying to squat too low with poor technique. If your trunk angle is too far forward (more than your shins) when squatting low then you will be putting additional pressure on your lower back.
- Keeping your trunk too upright throughout. If your trunk ankle does not match your shin angle then your buttock muscles will not be as efficient and additional pressure will go on your knee
- Your knees creeping too far in front of your toes or your knees creeping in/medially during the squat. This will increase the pressure on your knees and may create knee pain
- Extending your back too far backwards at the top of the movement. This
 may put increased pressure on your lower back joints
- Not returning completely upright at the end of the movement. In walking/running (especially up hill) you need your buttock muscles to be efficient throughout the whole range of movement. Coming completely upright at the top will ensure your buttock/hip stability muscles are used throughout the whole range of movement.