

## 1 Leg Swiss Ball Wall Squat



Full video instructions for this exercise can be found at: <http://ptpete.co.nz/?p=1946>

### 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 hip (left pic) against the wall
- Keeping constant pressure against the wall the whole time, lift your right foot/ankle off the ground
- When looking from the side the ankle closest to the wall should be in line, and remain in line with your other leg throughout
- When squatting down on your left leg (left pic) imagine that you are about to sit down on a chair – keep the pressure on the middle and heels of your left foot, stick your buttock backwards, and lower your buttock towards the floor
- Keep the centre of your left knee cap (left pic) in line (or slightly outside) your left foot's second toe
- The front of your left knee shouldn't go in front of the end of your left toes and your left heel should stay on the ground the whole time (left pic)
- Maintain a neutral lumbar spine/pelvis (slight lower back curve) the whole time and keep the left and right sides of the pelvis level throughout (right pic)

**Key Points:**

- From side on 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 (right 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 angle 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, especially in the push off phase. Coming completely upright at the top of the movement will ensure your buttock/hip stability muscles are used throughout the whole range of movement