

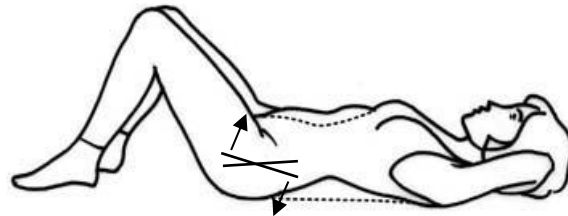
## Lumbar Stabilisation Exercises

These dynamic lumbar stabilisation exercises often require specific hands-on instruction because they offer much less benefit if done incorrectly, and they tend to be much more difficult than they appear.

This type of exercise program is progressive, starting with the easier exercises and advancing to the more difficult exercises once the lower-level program is mastered. The most important aspect of using these exercises is sensing and controlling motion in the spine. Once learned, the body can eventually take over and do this without the level of concentration it takes early on.

### Exercises while lying on your back (gluteal/abdominal)

These exercises should all be performed with a rigid trunk. The *pelvic tilt*, tightening the lower stomach muscles and buttocks, to flatten the back (Figure 1), can be used to find the most comfortable position for the low back.



#### **Pelvic Tilts – Seated**

Sitting, suck stomach in and slowly rock pelvis as if to be scooping pelvis under. Then rock pelvis the opposite direction to arch the low back and direct the buttocks out.

Identify pain free range of motion.

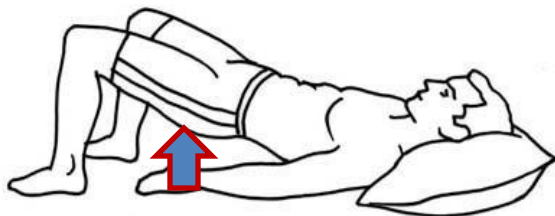
Sets: 2 - 3

Reps: 15 - 20

Hold: 4 – 10 sec

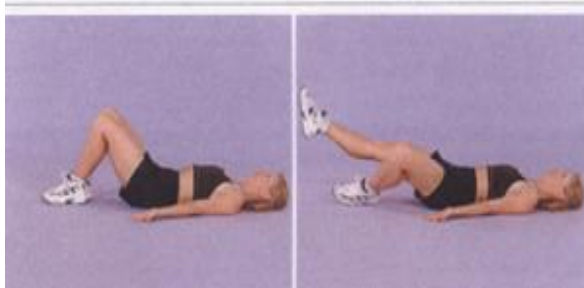
Rest: 30 – 60 sec

5 x Week



**Bridging** - Start by lying on your back with the knees bent, then slowly raise the buttocks from the floor lifting the spine one segment/vertebrae at a time.

Hold bridge for 5-10 repetitions, then slowly lower to starting position.



### **Ab Hollow Leg Raise/Knee Fall Out**

Lying on back with knees bent, feet flat on the floor. Raise and extend one leg up off floor while the opposite knee falls out to the floor (hip rotates) Only move legs through a range that you can maintain an abdominal hollow. Return legs to start position and alternate.

Sets: 2 - 3  
Reps: 15 - 20  
Hold: 4 - 10 sec  
Rest: 30 - 60 sec

5 x Week



### **Abdominal Hollow Arm/Leg Raise**

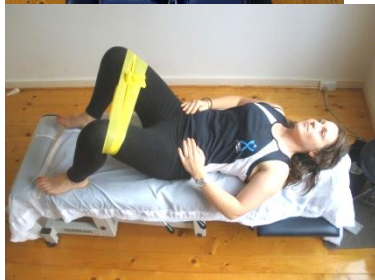
Lying on back with knees bent and arms at side. Raise one arm up over head, keeping stomach sucked inward. Bring arm back down to side then raise opposite foot up off floor keeping knees level. Lower leg then repeat.

Sets: 2 - 3  
Reps: 15 - 20  
Hold: 4 - 10 sec  
Rest: 30 - 60 sec

5 x Week

## **Exercises while lying on your back (adductors/abductors)**

Lying on back, put pillow/pilates ring/softball between knees. Feel for core muscles with index and middle fingers. Switch on abdominal core muscles (see above/pelvic tilt). Squeeze pillow/ring/ball to bring knees together, then slowly release. 10-20 reps or until mild fatigue.



Lying on back, wrap elastic in a loop around knees. Feel for core muscles with index and middle fingers. Switch on abdominal core muscles. Squeeze buttocks to separate legs. 10-20 reps or until mild fatigue.

Sets: 2 - 3  
Reps: 5 - 10  
2 - 3 x Day