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PREVENTION & REHABILITATION: SELF-MANAGEMENT: PATIENT SECTION

# The low diagonal (oblique) sit exercise\*



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Hip and groin issues are common in both sedentary and active people. Most exercises for this region involve moving the thigh (femur) in/out (adduction/abduction) or forward/backward (flexion/extension). In each of these motions the thigh moves against the pelvis. Yet, in walking, running, kicking, throwing, etc. much of the athleticism or power comes from pelvis moving against a fixed thigh (Liebenson, 2013. Yang, 2003).

Take for example a tennis forehand. The player plants the lead foot and then turns the rest of the body with power against the fixed forward leg. The same kinetic chain function occurs when throwing or kicking a ball. Even during everyday walking one leg swings forward over the opposite leg, which is fixed on the ground.

An interesting feature of this exercise is that it mimics the position achieved by a 7.5 month old baby. A baby will progress from rolling on to its side to sitting up on its forearm, and then outstretched hand (Liebenson, 2012).

In the exercise shown here very specific training of this intermediate function between rolling on one's side and sitting up straight is practiced. The progression of the exercise is as follows:

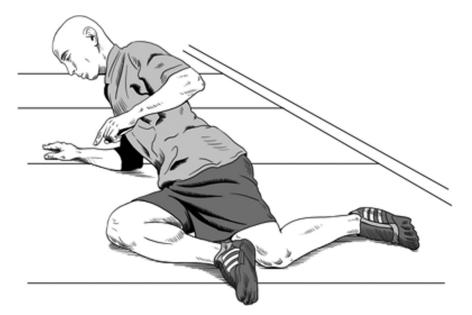


Figure 1 Start position.

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- Relax
- Aim
- Fire

# The low diagonal oblique sit

## Start Position

- Relax on your side
- Both legs are flexed with the top leg behind the bottom one (Fig. 1)
- Support yourself on your lower forearm

 Allow your trunk to sag down as your shoulder shrugs up towards your ear (Fig. 2)

This is your "Relax" position.

#### Movement

• To prepare for the movement push your forearm into the floor until your shoulder "packs" down away from your shoulder and your torso moves up from the floor (Fig. 3) This is your "Aim" position



Figure 2 Start position showing relaxing.



Figure 3 Taking aim — shoulder packing and trunk alignment.

- Load your lower knee by pressing your body forward from the hip and shoulder (Fig. 4)
- Lift your lower hip from the floor (approximately 1 inch) into bridge position (Fig. 4)
- You should feel your gluteal muscles working
- Finally, lift and lower your bottom foot (Fig. 5)
  - You should feel your inner thigh muscles working
- Progression is possible to the Turkish Get-up or use of a strap for resistance at the hip (Liebenson, 2011)
- Another progression is to extend the bottom hip until it is in a straight line between the bottom shoulder and knee



Figure 4 Loading the knee and lifting the hip.



Figure 5 Lifting the foot.

This is the "Fire" portion of the exercise.

## Repetitions

- Lift hip up and hold the bridge position for 10 s
- Then, lift your foot up and down slowly 3 times
- Return to "Aim" position
- Repeat 3 cycles

# Modification

- One can also bring the back leg forward until the legs are stacked one on top of the other and perform a side bridge to mobilize the hip into extension (Liebenson, 2004).
- Perform with the hand under your shoulder and arm extended fully (8.5 month developmental position of baby) (Liebenson, 2012)

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## References

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