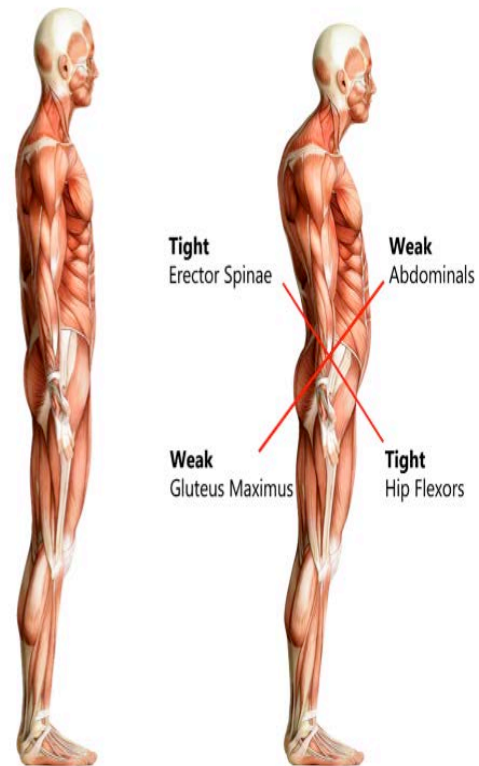


Lower Crossed Syndrome

- What is Lower Crossed Syndrome?
 - Constellation of postural and muscular changes that occur in a predictable pattern that can predispose patients to Chronic Low Back Pain
 - “Faulty posture results in alteration of the center of gravity, which initiates mechanical responses requiring muscle adaptation.”
- Lower Crossed Postural Changes
 - Anteriorly rotated pelvis
 - Increased lumbar lordosis
- These postural changes correlate with specific muscle imbalances due to the Agonist/Antagonist Reflex
 - Tight muscles
 - Iliopsoas (Hip Flexors)
 - Lumbar paraspinal muscles
 - Tensor fascia latae
 - Quadratus lumborum
 - Weak muscles
 - Abdominals
 - Gluteus maximus
 - Gluteus medius
 - Gluteus minimus



- Treatment
 1. Balance re-training
 1. Begin by standing on one foot with eyes OPEN and arms out and balance for 30 secs without any additional movements. Repeat on opposite foot. Repeat daily until able to balance for 30 seconds.
 2. Begin by standing on one foot with eyes OPEN and arms crossed out and balance for 30 secs without any additional movements. Repeat on opposite foot. Repeat daily until able to balance for 30 seconds.
 3. Begin by standing on one foot with eyes CLOSED and arms out and balance for 30 secs without any additional movements. Repeat on opposite foot. Repeat daily until able to balance for 30 seconds.
 4. Begin by standing on one foot with eyes CLOSED and arms crossed and balance for 30 secs without any additional movements. Repeat on opposite foot. Repeat daily until able to balance for 30 seconds.
 2. Stretch the tight muscles.
 3. Strengthen the weak muscles when directed by your therapist.
 4. Re-educate the patient about proper posture and correct muscle firing patterns to weak muscles

1



Clamshell

Begin Exercise laying on either side, then bend knees and hips as pictured above. While keeping hips and knees bent at same angle, slowly lift top-side leg away from bottom-side leg. Make sure hips and upper body do not roll backwards. When this happens, stop the movement, and slowly lower the leg back to starting position. Keep ankles together throughout entire movement.

Repeat 50 Times
Hold 0 Seconds
Complete 1 Set
Perform 1 Time(s) a Day

2



Seated Hamstring Stretch

Sitting on the edge of chair, keep leg to be stretched out straight and opposite leg bent as shown. Maintain a neutral spine with hands on hips. Lean forward from the hips to maintain the neutral spine until a stretch is felt in the back of the thigh. Foot can be relaxed or pulled up. Perform on both legs.

Repeat 3 Times
Hold 25 Seconds
Complete 1 Set
Perform 2 Time(s) a Day

3



Standing Hip Flexor Stretch

Standing with one foot forward, tilt pelvis by tucking tailbone and flattening low back. Then let your body weight move forward from your knee, while maintaining neutral spine and upright torso.

Repeat 3 Times
Hold 30 Seconds
Perform 1 Time(s) a Day

4



FROG Hip adductor and groin stretch supine

Lying supine with the knees bent, feet together, let the knees fall out to the side until a stretch is felt through the groin.

Repeat 3 Times
Hold 30 Seconds
Perform 2 Time(s) a Day

5



Isometric Transverse abdominal contraction

Lay on your back with your knees bent.

Place your thumbs on your stomach just inside your hip bones to feel the muscle contract.

Activate your abdominals by pulling everything in. "Try to bring your naval to your spine."

Hold this contraction for as long as possible to improve endurance.

Learn to use this muscle with daily activities such as lifting, bending, rolling.

Repeat 10 Times
Hold 10 Seconds
Complete 1 Set
Perform 3 Time(s) a Day

6



Diaphragmatic Breathing

In a reclined position, place one hand over your diaphragm, and the other one your chest. Take slow, deep breaths. The hand on the chest SHOULD NOT rise or fall. Attempt to push your bottom ribs out to the side as you inspire.