

# Pelvic Crossed Syndrome:

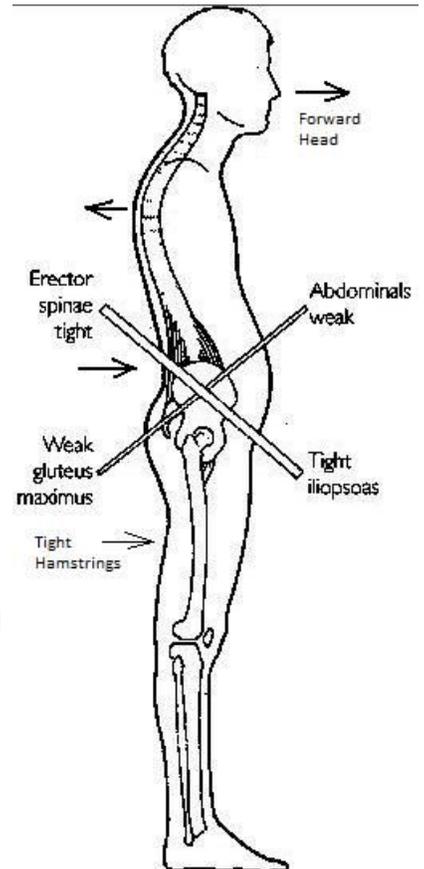
## A common underlying cause of lower back pain.

The statistics on lower back pain are staggering. About 80% of the population (243 million people) will have a bout of debilitating lower back pain at some point in their life. Of those 243M people, 60-89% of them will have a recurrence within one year, 15-25% will have symptoms for at least an entire year, and about 66% can expect to have some symptoms every year. The economic cost of lower back pain in the US is conservatively estimated to be \$90 billion.

Originally defined in the late 80's by Vladimir Janda, MD, DSc and Gwendolen Jull PT, PhD, two heavy weights in the manual medicine and rehabilitation world, the Pelvic Crossed Syndrome (PCS or lower crossed syndrome) is one of the most common underlying causes of acute and chronic lower back pain.

Unfortunately PCS, much like cardiovascular disease, is a "silent" disorder. It often **takes years to develop** and initially causes no symptoms. Symptoms become apparent only after PCS has made **significant** changes to the mechanics of the lower back. PCS, as shown in the picture to the right, is due to weak abdominals and gluteus muscles and over-active, tight hip flexors and lower back muscles.

PCS is most commonly seen in those who have desk jobs or those who sit for a majority of the day, but PCS is not exclusive to this group. **Humans are designed to stand and walk.** Standing and walking engages the gluteus and abdominal muscles and lengthens the hip flexor muscles. Sitting, however, tightens and shortens the hip flexors and inhibits, or turns off, the gluteus and abdominal muscles. This *paradoxical muscular imbalance* is due to *Sherrington's Law* of reciprocal inhibition which states that when one muscle is shortened or tightened its opposite muscle relaxes. For example, in the upper arm, when the biceps contract—the triceps relax and vice versa. If the biceps were always tight the triceps could never be strengthened. The picture to the right demonstrates the reciprocal relationships in the pelvic and lower back areas.



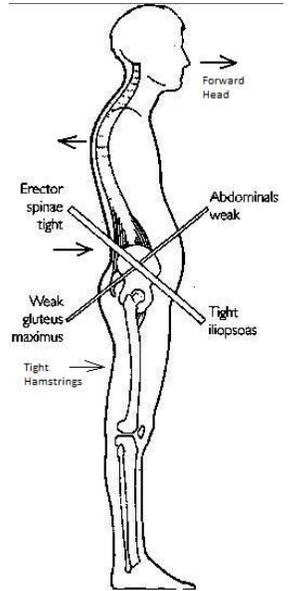
OVER

# Pelvic Crossed Syndrome

## Continued

Thought PCS is a “silent” disorder, it does give us some visual cues. Most people who have PCS have an forward tipped pelvis, an increased curve in the lower back (sometimes called a ‘sway back’), under developed gluteal muscles, and a bulging (not necessarily fat) abdomen.

The changes in muscle length and strength from **PCS creates dramatic destructive forces in the lower back** affecting the joints, discs, connective tissues and muscles causing rigidity, instability and ultimately pain. (Eventually *these changes affect the entire body* creating the “upper crossed syndrome” as well.) Every move—every step, every lift, every twist—that someone makes who has PCS damages their lower back. Those who have PCS often develop back pain either “out of the blue” or while doing something completely mundane—like while tying their shoes or bending over the sink.



Due to that pesky Sherrington’s Law of reciprocal inhibition, **it is impossible to strengthen the gluteus and abdominal muscles without chiropractic and rehabilitative intervention** due to the degree of tightness of the hip flexors, lower back and hamstring muscles and the rigidity of the spine.

The good news is that **PCS is easy for us to identify and can be corrected with time and a conscientiously applied program of chiropractic and rehabilitative care.** Over time, manipulation, stretching and progressing exercises reestablishes normal movements and normal muscular length and strength. Most people with PCS should plan on **three to four months** of care including chiropractic, stretching and exercise to correct their PCS.

**Keep in mind that symptoms are often very misleading. PCS develops over a long period of time without causing pain and pain usually vanishes long before the underlying imbalances are corrected.**

Suggested preliminary stretches and exercises. Hold stretches for 30 seconds—3 repetitions. Do slow repetitions of exercises—3 sets of 12.

