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Back pain and a tall pelvic bone

Some individuals are at greater risk to experience recurring back pain. Anatomical variations may be one of the factors, which increases ones' risk. An anatomical factor, which can increase the risk of recurring back pain, is a tall pelvic bone. In my experience this is a relative frequent anomaly, but health care professionals in frequently recognize it.

Some males are born with relatively tall pelvic bones. A typical male the top of the ilium bone (pelvic bone) is at the level of the belt on pants. Some individuals the top of the ilium bone is a good 2 fingers width above the belt line, inferring the ilium is taller than most. This does not occur in females as their pelvis is shaped differently than males.

Depending on your point of reference these individuals are described as being short waisted or tall waisted. Much like describing the weather two terms can describe the same observation. Some describe the weather a partly cloudy where as others would describe the same weather as partly sunny. A tall pelvis can be described as short waist or tall waist. The waist is short because the distance between the pelvis and ribs is short. The waist is tall because the pelvis is tall.

In my experience individuals with this bony configuration of a tall pelvic bone frequently experience recurring back pain. The location of the pain is typically waist level and/or low back region. Depending on the circumstances it may favor either the right side of the left side.

The normal anatomy the last 2 vertebra are wedged in between the two pelvic bones and the top of the pelvic bone will correspond to the space between the second from the bottom to the third from the bottom vertebrae. This arrangement serves to provide stability. However if the ilium is taller it means another vertebra is wedged between the two pelvic bones, leading to even greater stability. As stability increases mobility decreases. This can lead to another region of the body compensating for the excessive stability by developing excessive mobility. The vertebrae higher up in the spine may compensate by moving more than normal leading to excessive joint movement and potentially pain.

Identification of a tall pelvic bone

How do you identify whether you have a tall ilium. With your fingers feel the top of your pelvic bone; it should be very close to your belt line. There should be space between the top of your pelvic bone and the last rib, generally 3 to 4 fingers width. One

to one and half finger width between the top of the pelvis and the ribs suggests the pelvic bone is too tall.

Bending forward to touch toes there should continue to be space between the ribs the pelvic bone. If the ribs are banging into the front of the pelvic bone it makes it difficult to touch your toes. The commonly accepted standard of being able to reach to touch the toes when bending forward needs to be adjusted for individuals with a tall pelvic bone. They will always have difficulty reaching the standard of touching the toes.

Management of low back pain related to a tall pelvic bone:

If the back pain is a result of excessive movement treatment needs to avoid excessive movement. A key concept is to avoid or minimize positions and activities, which lead to excessive motion of the middle of the back particularly in the direction of flexion or bending forward. Avoiding sustained sitting in slouched position is critical. A back brace can provide assistance in improving stability of the region of the spine, which is moving too much. Strengthening and stabilization exercises are important. However traditional sit-up exercises would be counter-productive as they encourage flexion of the middle of the back.

If anatomical anomalies limit movement in the low back, and treatment is directed at limiting motion in the middle of the back, than in order to move and to be able to function the hip joint needs to achieve maximum flexibility. It is important to keep the hamstrings long and flexible. In this case hamstring-stretching exercises need to be designed to isolate the stretch to the hamstring muscles being careful not to stretch the middle of the back in the direction of flexion (bending forward).

A little recognized anatomical anomaly of a tall pelvic bone can contribute to recurring back pain. There are strategies available to account for this anatomical abnormality. Recognize expectations regarding flexibility tests needed to be adjusted for individuals with tall pelvic bones. Adjustments should be made to standard flexibility and strengthening exercise programs as well.