



PREGNANT AND POSTPARTUM
MOVEMENT THEORY

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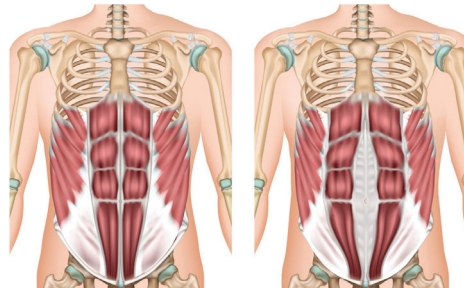
PREGNANT AND POSTPARTUM MOVEMENT THEORY

Part 1

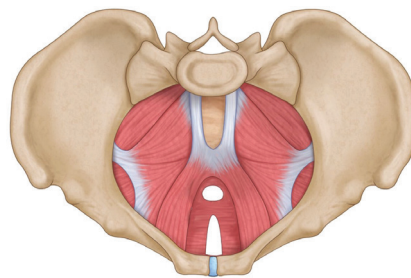
Rib Cage Position and Movement

Common Pregnancy Issues

- Diastasis Recti

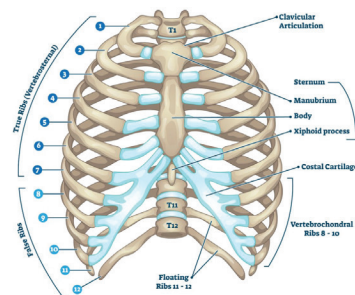


- Pelvic Floor Issues



- Incontinence
- Prolapse
- Tension
- Other musculoskeletal issues, such as back and hip pain or plantar fasciitis.

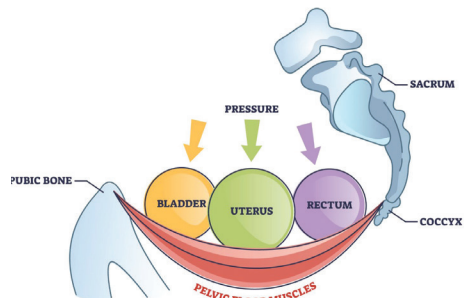
Pregnancy Rib Cage Spreading



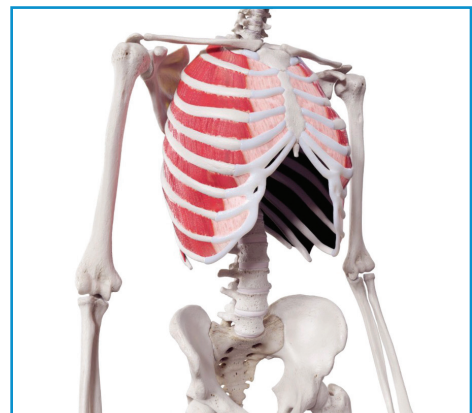
- The rib cage and pelvis both spread during pregnancy.
- Addressing rib cage width and mobility:
 - Increases abdominal recruitment



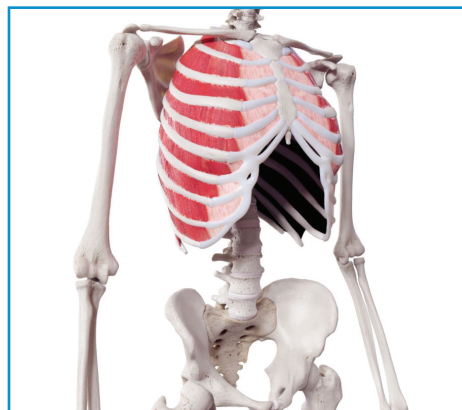
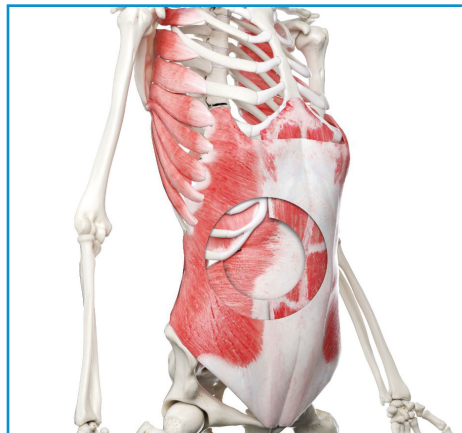
- Decreases pelvic floor pressure



- As the rib cage spreads, it:
 - Changes the length of the intercostal muscles



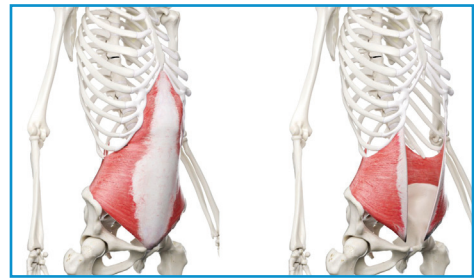
Notes



- The diaphragm shares fascial connections with the psoas, QL, and TAs, and is involved in core and pelvic floor function. (Özkal et al., 2019; Bordoni & Zanier, 2013)



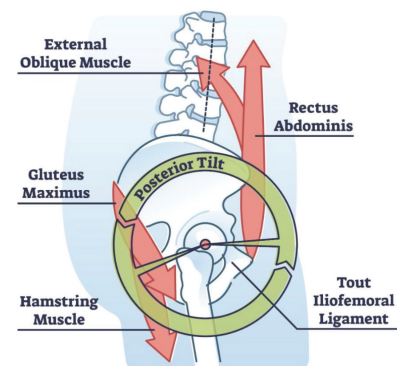
- If the abdominals are weak (particularly the stabilizers), then the diaphragm will work more for postural support.



- If it has to contract for postural support, that brings it down and flattens it out rather than letting it stay up in its dome-like shape. (Boynton et al., 1991; Cassart et al., 1997)
- Getting the diaphragm back into a dome-like shape by working on good, 360 degree, deep breathing and improving the resting position of the rib cage positively influences most areas of the body.
- Increased psoas tension
 - The psoas compensates for decreased abdominal muscles.

High Hinge Point

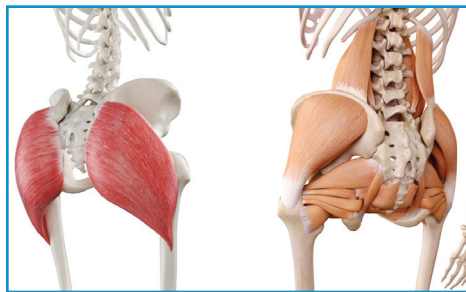
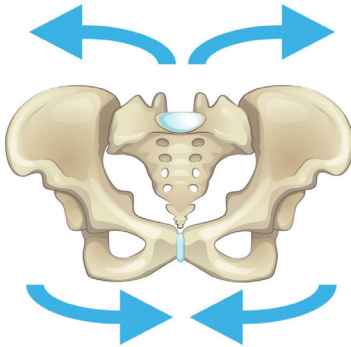
- An increased curve at the T12-L1 junction due to the psoas and posterior diaphragm working more for postural support.
- Is often accompanied with flattening of the lumbar spine, and glute clenching and tucking.



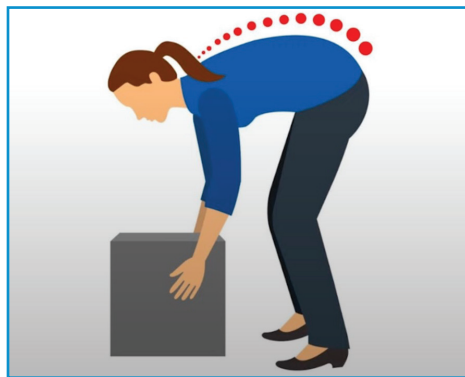
- Changes to the lumbar curve can make the lumbar spine more vulnerable to injury.

Compression = Compensation = Excessive Load

- Posterior pelvic floor tension and lack of sacral nutation (i.e., being stuck in inlet ER) increases compensation with lower lumbar flexion.



- If you can't get nutation and glute and deep hip rotator lengthening, your lumbar spine will have to flex more for movement.



- A high hinge point and excessive extension in the upper lumbar equals greater flexion compensation at the lower lumbar.

Goal From Our First Lesson

- Check the ISA, and apply the differences for narrow versus wide.
- Increase intercostal strength.
- Improve rib cage and thoracic spine mobility.
- Improve the diaphragm's resting position and excursion.
- Decrease psoas tension to improve the lumbar spinal curve.

References

- Özkal Ö, Kara M, Topuz S, Kaymak B, Bakı A, Özçakar L. Assessment of core and lower limb muscles for static/dynamic balance in the older people: An ultrasonographic study. *Age Ageing*. 2019;48(6):881-887.
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- Boynton B, Barnas G, Dadmun J, Fredberg J: Mechanical coupling of the rib cage, abdomen, and diaphragm through their area of apposition. *J Appl Physiol* 70:3,1991.
- Cassart M, Pettiaux N, Gevenois PA, Paiva M, Estenne M. Effect of chronic hyperinflation on diaphragm length and surface area. *Am J Respir Crit Care Med*. 156:504-508, 1997.