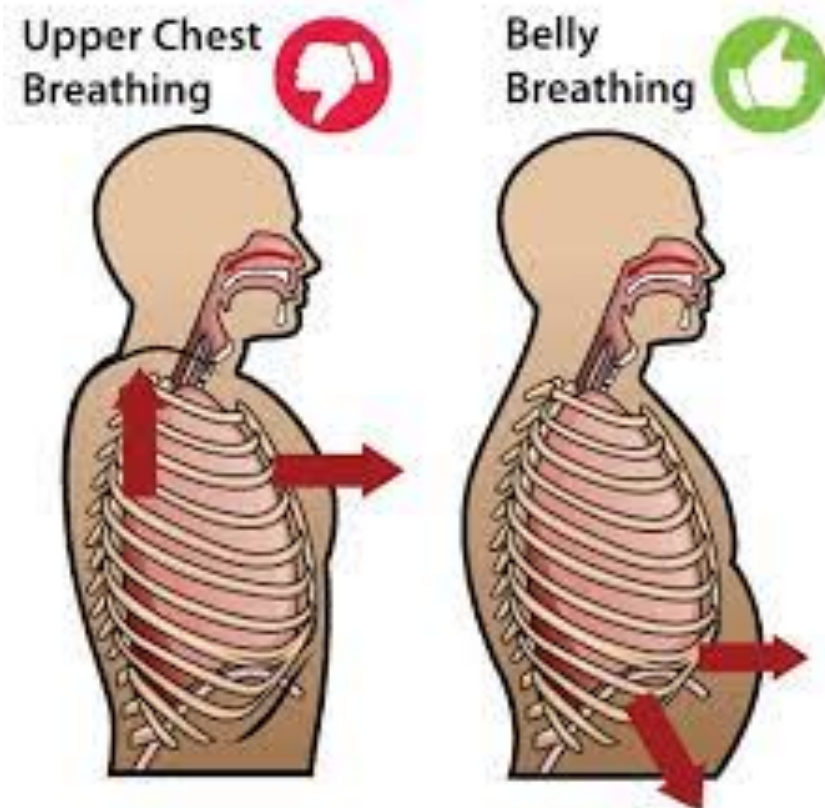




Know Your Joints
Muscle and Joint Care
Suggestions

How does Proper Breathing Protects the Low Back and how Disordered Breathing Hurts It ?

Summary: Poor breathing comes from the chest using accessory breathing muscles around the upper ribs. This cause a whole host of problems including poor total spine posture. On top of that when you breathe from the upper chest you do not use the diaphragm, which is the key breathing muscle (belly breathing). The low backs close relation to the diaphragm make the diaphragm important in protecting our low back and improving athletic performance. The simultaneous contraction and coordinated movement of the diaphragm, transversus abdominis, and pelvic floor muscle are the most important and basic elements of spinal stabilization. So if you are not properly breathing you are losing a key muscle that protects the back. **READ ON** for details.





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The diaphragm is considered part of the intrinsic core. The core's main job is to hold and protect your spine. That is why I work the diaphragm through breathing exercises when I teach core classes. The low back's close relation to the diaphragm makes it important in protecting our low back and improving athletic performance. What is the diaphragm: The diaphragm is a dome-shaped muscle beneath the lungs. When you inhale, it flattens and moves downward, pressing against the abdominal organs so the lungs can expand. Many adults don't properly engage the diaphragm—poor posture, stress, and other factors lead people to breathe shallowly, moving the upper rib cage more than it should. This can also cause discomfort in the chest and back muscles, weaken the muscles in the pelvic floor and lower back, and disrupt proper movement of the shoulders and spine. It also creates tension in the upper body that can alter our posture and impact both low back posture and stability. Breathing properly leads to relaxation of the body and the muscles in the mid and the lower back. So, breathing exercises have been found to be helpful in the treatment of chronic low back pain.

Details: **Among the trunk muscles, the respiratory muscles, internal oblique, abdominal muscles, back fibers, and spinal multifidus stabilize the spine.** The pelvic floor muscles (diaphragm) also influence spinal stability by cooperating with the trunk muscles to generate abdominal pressure. The transversus abdominis, an important core muscle, moves up and down while breathing and is the most important muscle required for blocking inspiration among the various muscles that contribute to spinal stabilization. Moreover, as the transversus abdominis is an expiratory muscle, it also increases abdominal pressure. Both muscles work by cooperating with the pelvic floor muscles. Thus, regarding the function of the trunk muscles, the simultaneous contraction and coordinated movement of the diaphragm, transversus abdominis, and pelvic floor muscle are the most important and basic elements of spinal stabilization and can be directly affected by breathing exercises including forced breathing ([study](#)).