BACK TO MOBILITY

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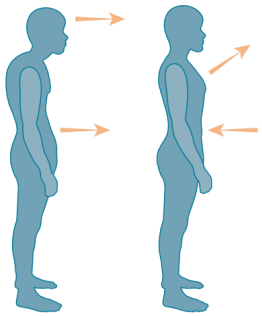
BRIDGING THE GAP BETWEEN YOUR ACHES, PAINS & YOUR UPPER BACK

Have you ever felt you are progressively hunching over? Do you ever suffer from neck or shoulder pain? Are there times when you feel like you can't take a deep breath? If the answer is yes to any of these questions, you may benefit from some attention to your thoracic spine, or otherwise known as your upper back.

LET'S TALK THORACIC

Your thoracic spine is made up of 12 vertebrae and is **the longest region of the spine**. It plays an integral role, connecting to both the cervical (neck) and lumbar (low back) regions. The thoracic spine is the only region that attaches to your rib cage and serves to anchor it. More importantly, the thoracic spine protects your spinal cord and vital organs, such as your heart and lungs. Our back is made to move – bending forward, extending backwards and rotating side to side. When we are not able to achieve these motions, there are compensations from the surrounding areas. Naturally, the thoracic spine is in kyphosis, meaning curved forward. When the kyphosis becomes more extreme, like Quasimodo, there is more stress to the muscles and joints leading to upper back pain.



The **leading cause of upper back pain** is tight muscles and joint dysfunction. Acute trauma, like a sports injury or improperly lifting something heavy, can cause pain in the upper back. Unfortunately, it is more common that our sedentary lifestyle, being an undesirable hallmark in our society, is the leading cause of this pain. Recent research evidence has found an association between back pain and prolonged sitting (over 7 hours per day) and lack of physical activity (less than 150 minutes per week). Less common causes of upper back pain include rib misalignment/displacement, which can lead to sharper pain while breathing and disc problems, which are less likely in this region. Another important factor in developing pain in this region is exercise. Often exercise promotes joint and soft tissue mobility, but it can also result in shortening of muscles leading to joint stiffness. For this reason, a well-balanced exercise program, including stretching, mobility and strengthening, is important for injury prevention.

WHY WE NEED TO MOVE AND NOT ONLY STRETCH

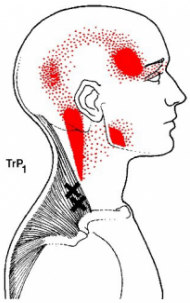
Thoracic mobility is essential to ensure the adjacent spinal regions, like your neck and low back, don't over compensate. It will come as no surprise that the following three regions are closely linked to your upper back.

1) Your Shoulder Blade

There is a known rhythm between your shoulder blade and your upper back – more technically known as your ***scapulohumeral rhythm***. This movement pattern is fundamental to maintain the space under your shoulder. Individuals with a shoulder impingement have statistically less upper back mobility and an increased upper back curve than individuals with healthy shoulders. When your upper back/chest tightness sets in, the curve becomes more pronounced contributing to reduced mobility and your shoulder blades rounded forward.

2) Your Neck

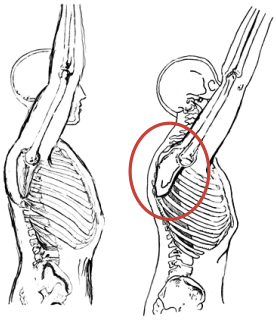
Do you ever feel like that nagging pain inside your shoulder blade starts to travel up towards your neck? Do you ever suffer from headaches? Muscle imbalances and tightness in the upper back and shoulder create dysfunction. When the muscles that are responsible for these movements lose adequate muscle length to contract, compensation occurs above and below a joint. When the tightness continues, trigger points can occur which can result in travelling and/or nerve like pain. Some of these trigger points can be the cause of your headache, termed tension-type headaches.



Upper trapezius trigger point[1]

3) Your Shoulder

The shoulder joint serves all your functional upper limb movements, such as throwing a ball, taking items out of your cupboard or bathing. Overhead arm movements require your shoulder blade to tip backwards and squeeze inwards. The higher you raise your arm, the more movement required in the upper back. The ability of your shoulder blade to retract—pulling your shoulder blades in towards each other without shrugging up towards your ear—can be affected by movement in your upper back and rib cage.



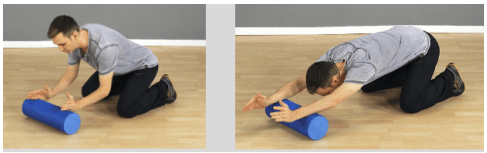
WAYS TO HELP YOU MOVE

Please consult a health professional before attempting new exercises, as the following are suggestions and may or may not be appropriate for you.

Perform 3-4x/week **Reps: 10** **Sets: 3**

Wall Angels *Position*: Stand with your back against a wall with arms raise to 90 degrees. While making contact with your head, wrists, elbows and shoulders, slide your arms up and down the wall. Try to be as close to the wall as possible. To make easier, move further away from the wall and go in a mini squat position.

Roll Outs *Position:* Kneel down on both knees and have your hips close to your heels. Place both hands on a foam roller, directly in front of you. Roll your arms forward on the foam roller, and try to extend your elbows fully



Quadruped Thoracic Mobility *Position:* On all fours, with your head straight and knees bent to 90 degrees. Place your hand behind your head, rotate your upper back inward so that your elbow is pointed toward the opposite knee. Raise your elbow toward the ceiling by rotating your upper back and head to the right as far as possible and comfortable.

Content Resources:

1) Heneghan, N. R., Baker, G., Thomas, K., Falla, D., & Rushton, A. (2018). What is the effect of prolonged sitting and physical activity on thoracic spine mobility? An observational study of young adults in a UK university setting. *BMJ open*, *8*(5), e019371. doi:10.1136/bmjopen-2017-019371
2) Mark Yezak, D. (2018). Thoracic Spine Anatomy and Upper Back Pain. Retrieved 7 February 2020, from https://www.spine-health.com/conditions/spine-anatomy/thoracic-spine-anatomy-and-upper-back-pain
3) Images – Hep2Go, Google Images, CCA, Dynamic Chiropractic