



Nagging Neck Pain

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Neck pain is something we tend to associate with computer use but it happens in blue- and white-collar workers alike, not to mention as a result of auto accidents. Even with the best ergonomic set-up, chronic neck pain continues to haunt us. The problem is the neck is often at the losing end in the shoulders' struggle to satisfy demands on them.

To give you an example, a woman I recently treated had suffered migraines, neck and shoulder pain for 15 years after 2 back-to-back auto accidents. After many specialists, chiropractors, rolfers, massage therapists etc, she ended up with me. We quickly deduced her pain, although felt in her neck, had its roots in her shoulder function. After correcting this in about 3 treatments her neck pain and headaches disappeared and she has been pain free ever since. Here is some background and suggestions to find balance between the needs of mobility and stability and get to the roots of fixing your neck pain.

A little anatomy:

There are muscles which attach from the shoulder to the neck which can rotate, sidebend or compress vertebrae of the cervical spine causing neck pain. There are usually two reasons for this: 1. muscles connecting the shoulder to the neck are not working properly and 2. the deep neck stabilizers are not working properly.

The shoulder muscles we are concerned with here are primarily the upper trapezius and levator scapula muscles pictured below. When the upper trapezius muscle is lengthened or weak, the levator scapula, which runs deep to the trapezius, assumes more work. The upper trapezius attaches to the base of the skull and indirectly through a thick ligament to the cervical and thoracic spine. The levator scapula attaches directly to the first four vertebra of the cervical spine from the scapula.

In the front of the cervical spine are deep neck flexors which often become weak and elongated due to a forward head posture. This is a position where the head sits forward on the trunk more than it should creating tight neck extensor muscles in the back and long and weak neck flexor muscles in the front. These deep neck flexors help stabilize the cervical spine against excessive forces and motion. When weak, they cannot do their job and often neck pain results under these conditions.

Imagine how much your arm and shoulder weigh with all those bones, muscles, ligaments, blood, nerves and tendon. Perhaps 10, 20 or more pounds? Now picture that if the muscles connecting the shoulder to the neck (the upper trapezius) are not functioning well, your arm is essentially dead weight exerting 2555 W. 36th Ave., Denver, CO 80211 303.477.4212 Rick@ZLineTraining.com

tremendous and continuous tension on the cervical spine via the levator scapula. As you can imagine, if your neck cannot stabilize against forces acting on them and the forces acting on them are larger than necessary then you've got a recipe for neck pain, headaches, thoracic outlet syndrome and more.

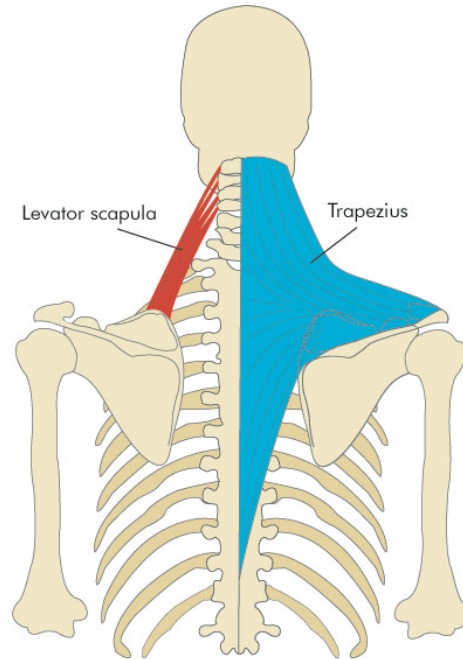


Figure 1. Upper Trapezius and Levator scapula

The solution:

I've found many problems regarding neck pain are solved by treating the shoulder so we'll focus here.

As mentioned before, there are critical attachments from the shoulder to the neck, if we can get these muscles to work better by correcting shoulder function, then our necks should have some relief from their constant tension. Test this by rotating, side-bending, flexing and extending your neck as you usually do. Note pain or range of motion limitations. Now raise your chair arms so your shoulders rest higher than they normally do- in effect unloading them. You may feel that your shoulders are unnaturally high but just bear with the experiment for a moment. Your arms must be completely relaxed. Now re-test your neck movements. Are they less painful? Do you seem to have more range of motion before pain? If you do then there is probably a large component of your neck pain that is due to faulty shoulder biomechanics. If you found relief from unloading your arms then this next exercise (pictured below) targets shoulder mechanics.

Begin on hands and knees. While rocking backward allow your shoulders to elevate toward the ears and lower head down toward the floor. Try to avoid allowing the elbows to rotate outward. The finishing position should be that of an overhead position but with hands supported on the floor. Hold at bottom for two breaths and return up. Repeat 5-10 times.



Starting Position



Finishing Position



Finishing Position

Now re-test your neck movements while sitting or standing by flexing, extending, sidebending and rotating your head as you did before. Is there less pain? Do you have more range of motion? If your neck feels better, it is because we just educated your shoulders in how to move and began turning on muscles the way they were meant to function. Of course there is much more to correcting chronic neck pain than this but these tips should give you a direction to move forward.

Rick Olderman, owner of Z-Line Training, is a licensed sports and orthopedic physical therapist, personal trainer and Pilates instructor. His work experience has spanned private clinics, health clubs and corporate clients. His specialty is treating chronic and acute injuries with special attention to injury prevention. Rick's unique hands-on clinic topics include Fixing Chronic Back Pain, Fixing Neck & Shoulder Pain, Fixing Hip and Knee Pain and Injuries and Exercise. He also fits individuals with custom foot orthotics to correct biomechanical problems in the feet. Whether people suffer from degenerative disk disease, herniated disks, stenosis, carpal tunnel syndrome, headaches, recurrent shoulder impingement, groin pain or bursitis pain, Rick's distinctive clinics and unique treatment approach teach people how to correct the root causes leading to these tenacious and costly problems.