

# Good Posture - The Holy Grail

By Jennifer Salter

Everyone agrees that having good posture creates an image of self-confidence and assertiveness. Most people also know that poor posture can lead to painful back problems. However, standing tall requires more than good intent. Slouching is not the result of laziness – rather, imbalances in muscular strength and flexibility make it difficult for the most self-possessed person to maintain good posture throughout the day.

The most common postural problem is aptly named Rounded Shoulder Syndrome. This affects approximately 90 percent of the population, and will be present unless a concerted effort is made to address its root causes. Rounded Shoulder Syndrome is the result of internally rotated shoulders, and

excessive outward curvature (khyphosis) of the mid back area. Often, this also leads to excessive inward curvature (lordosis) of the back of the neck. I think of this postural presentation as the proverbial “computer slouch”.

Although excessive screen time most definitely has caused an explosion of Rounded Shoulder Syndrome in recent years, it is the cumulative effect of hours of activities done in front of our bodies that results in the syndrome. Most of what we do in our daily lives is done in front of our bodies, of course – we do not have eyes in the back of our heads!. Driving, cooking, writing, and so forth will all result in some degree of internal rotation of the glenohumeral (shoulder) joint. The tipping point, I believe, has been the drastic change in lifestyle of the past twenty years – and by this I mean the shift to sitting all day in front of the computer, with no real need to get up except to go to the bathroom.

## Back Problems

Excessive sitting results in multiple issues related to back health. When you are seated – even with good posture - your low back is in constant, low-grade flexion. Repeated and/or continuous flexion of the lumbar spine will eventually lead to a process called disc delamination, when the outer collagen rings of the lumbar discs begin to wear away. Disc delamination can eventually lead to painful conditions such as bulging or herniated discs.

Sitting for long periods also results in shortened psoas and weak gluteals. This causes misalignment of the pelvis whereby the low back is permanently in flexion, allowing disc delamination to progress even when one is not seated. When the low back is constantly in flexion, it is very difficult to stand up straight – which results in the shoulders rounding forward. When the shoulders are rounded, the muscles of the rhomboids and mid-trapezius become weak and overstretched. This can activate the myostatic stretch reflex, which leads to those same muscle spasms in fear of being torn. Many back spasms are the result of this mechanism.



## Neck Problems

When the shoulders are rounded forward, we automatically have to extend our necks more than usual to be able to look straight ahead. Try it – get into your best slouch position and try to look at the computer screen without tipping your head further back. I will venture a guess that you find it impossible. Excessive extension of the neck compresses cervical spinal discs, and as such I usually tell my clients that the only good reason to extend your neck back is to catch snowflakes on your tongue or look for falling stars. The degree of neck extension created by Rounded Shoulder Syndrome is obviously less than when staring, but even chronic mild extension can cause pain for some individuals.

## Shoulder Problems

Rounded Shoulder Syndrome reduces the space available inside the shoulder capsule for the rotator cuff and bicipital tendons and other relevant connective tissues to move around. A healthy shoulder only has approximately 7 mm of space – rotator cuff problems can occur when this space is reduced by only 2 mm! Unfortunately, rotator cuff tendonitis can lead to tears of the rotator cuff tendon, which can be difficult to detect without advanced diagnostic imaging equipment, and do not heal well. Many older adults have undiscovered rotator cuff tears, which will in almost all instances be worsened by an incorrectly designed exercise program.

## Exercise Specialist Recommendations:

- **Break long periods of seated behaviour with standing breaks.** Encourage your clients to stand up and walk around every 20-30 minutes when working at a desk or computer. The core musculature that supports the low back shuts down after approximately 20 minutes of sitting, and moving around reactivates it.
- **Do the doorframe stretch.** Position your client's arms into what I call the "bank robbery position" – then have her place her arms against a doorframe. Have the client lean forward slowly until she feels a nice stretch in her chest and shoulders. Never have a client stretch to the point of pain; instead cue the sensation of "a nice tension to mild discomfort". As with any exercise that includes a neural/motor programming component, recommend a frequency of two to three times per day.
- **Do the lunge stretch** in order to lengthen the psoas and remediate chronic lumbar flexion.

- **Do shoulder shrugs.** Have the client squeeze his shoulder blades together, then shrug his shoulders halfway up toward his ears. Then have him lower his shoulders – without releasing the scapular retraction – ensuring that an end-range of scapular depression is achieved.
- **Do shoulder blade squeezes.** Instruct the client to put her arms up into the bank robbery position, then press her shoulders down toward the floor. Then have her squeeze her shoulder blades together as hard as she can. Have her release, and repeat six to ten times. Clients who have extreme atrophy of the rhomboids and trapezius muscles may find it challenge to retract at all – in this situation, focus instead on relearning this movement pattern without a focus on multiple repetitions.
- **Make sure the client's computer monitor is at eye level,** ensuring that he does not need to look down while working. Favour an antiquated desktop, as it is easier to work in an ergonomically correct fashion when the positioning of the monitor and keyboard can be adjusted separately.
- **Program exercise modalities that required an upright posture.** If the client spends the vast majority of her waking hours seated, encourage her to walk or run by designing a cardiovascular training program that incorporates gradual progression and adequate recovery time.

Although Rounded Shoulder Syndrome is endemic in our society, developing exercise programs that take specific postural imbalances into account will go a long way to assisting your clients in improving their quality of life.

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