

# Mechanical Body Pain

## *The Neck and Low Back*



# Centre for Chiropractic & Sports Rehabilitation

An integrative, biomechanical approach to the everyday sports and spinal injuries.

### Mechanical Neck Pain

The term “mechanical neck pain” is a wide-ranging term that identifies pain caused by a biomechanically dysfunctional neck. This includes dysfunction in the joints, muscles, ligaments, and fascia, as well as a lack of strength, tight tissue, or tissue that holds triggerpoints. A combination of gravity and poor posture cause your neck flexors and scapular stabilizers to become weak. To compensate, your brain recruits antagonist muscle groups to perform functions that your weakened muscles can no longer achieve. These muscle groups—the upper trapezius, levator scapula, and pectoral muscles—become overactive. This unique muscle imbalance is a significant cause of shoulder pain, rotator cuff injuries, and mechanical headaches. Compression of the discs in the neck is inevitable in this condition, which will eventually lead to arthritis, disc bulges, and numbness or tingling in the neck and face. **Seeking treatment early into your neck pain will halt this progression!**

### Mechanical Low Back Pain

In the past, low back dysfunction has been determined through X-Rays and MRIs. These images provided a doctor with an understanding of the structural issues in the low back, however many patients still experienced low back pain even after their structural issues were treated! Current research has revealed that mechanical low back pain is not just structural: muscular tightness, biomechanical loading, joint tightness, postural issues, and an inactive lifestyle can all contribute to low back dysfunction, and unfortunately, so can gravity. As gravity acts on you (or as you sit or load) for extended periods of time, your hip flexors will become shortened (tight). As a result, your brain will automatically inhibit the reciprocal muscles on the other side of your body: the glutes. To compensate for weakness in your glutes, your body will recruit synergistic muscles like the hamstrings and lower back to assist the glutes in their performance. The lower back and hamstrings are now performing tasks that they were never intended to perform, and thus become tight. If dysfunction in the low back persists—with or without pain—true structural damage like bulged discs and pinched nerves are inevitable. **Again, seeking early treatment will halt this progression, even for chronic cases.**

### Treatment at CCSR

Treatment at of both neck and low back dysfunction is aimed at transforming damaged body tissue into healthy collagen, increasing flexibility in the affected area, improving range of motion/strength, educating patients about biomechanically sound posture, and encouraging an active lifestyle to maintain their progress. We will also treat and strengthen surrounding areas. For example, patients with low back dysfunction will often undergo treatment to their pelvic musculature: their glutes, hamstrings, iliopsoases, and IT bands will be treated to prevent them from causing any low back dysfunction. We have found that even patients with chronic dysfunction benefit greatly from biomechanical treatment: if one is patient with therapy and commits to daily at-home treatments, he or she can experience great relief of arthritis or disc bulges. With treatment, most arthritic patients can lead a non-disabled, pain-free life!

### Home Treatment

We encourage our patients to embrace the pursuit of health and function as a lifestyle, not just weekly treatment. To improve, cure, and prevent further dysfunction of the neck or low back, one needs to commit to a home program of daily stretching and dedicated activity. Your CCSR practitioner will prescribe stretches and strengthening exercises that are appropriate to your progress and condition.

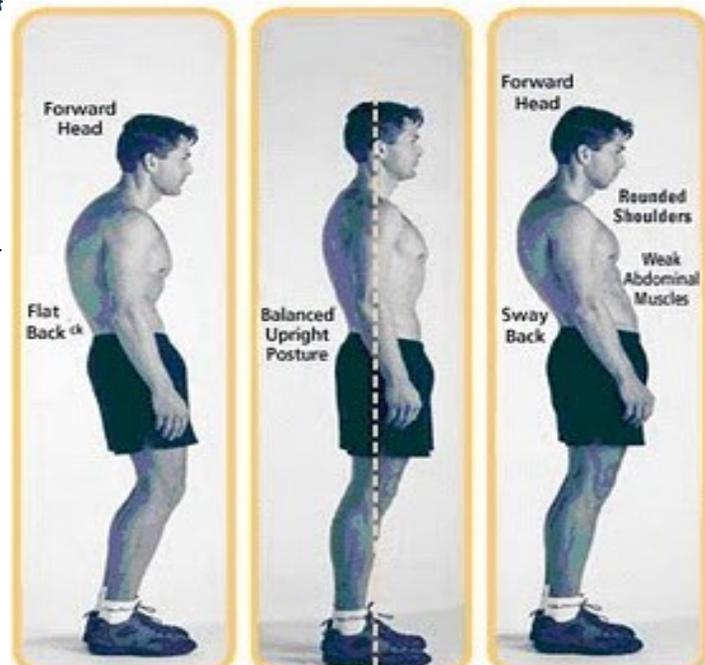


Figure 1: Postures that indicate mechanical dysfunction in the neck and low back