

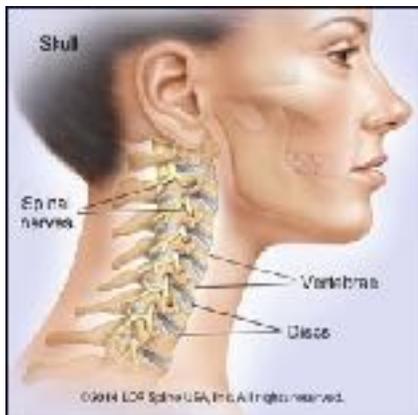
# INNER CIRCLE Insights

## Cervical Pain

Page 1 of 2

Many people suffer from pain and dysfunction throughout the head, neck, shoulder complex and upper extremities. They have seen their doctors and followed their instructions faithfully. They may have even tried physical therapy before; but found any results and relief to be temporary at best. This article will introduce you to the reasons why Inner Circle Rehabilitation is different from every other facility and can guide you down the path towards a more pain-free and active lifestyle. In this article, we will examine cervical pain through a case study of a former patient. Jennifer, a 54 year old administrative assistant came to our facility complaining of neck pain and stiffness, along with right upper extremity radiculopathy (radiating pain) and paresthesia (numbness and/or tingling). She reported that her symptoms began insidiously and were worse when she was sitting at the computer, performing work-related duties. An x-ray of her neck displayed a straightening of the cervical spine and moderate arthritic changes.

Before going further we shall review some of the basic anatomy and physiology of the cervical spine and shoulder complex to assist in your understanding of how we approach the human body. The cervical spine consists of seven vertebrae and extends from the bottom of the skull to the top of the thoracic spine. It is capable of moving into forward flexion (90 degrees), extension (70 degrees), rotation (90 degrees) and side bending, or lateral flexion (45 degrees).



In a side view, proper posture of the cervical spine is exhibited when there is a slight forward curve or lordosis of the vertebrae, aligning the head over the shoulders and the shoulders over the hips. From a front view, the ears, eyes and shoulders should be level; with the neck centered equally between both shoulders. When this proper posture is disrupted, the cervical spine is at risk for developing many painful conditions. These conditions include, but are not limited to: osteoarthritis, sprains and strains, herniated and bulging discs, spinal stenosis and degenerative disc/joint disease. Cervical spine disorders can create a large array of symptoms including neck stiffness and pain, sinus dysfunction, dizziness, headaches and/or migraines. Symptoms extending past the cervical area can include upper extremity symptoms, including shoulder dysfunction, radiculopathy, paresthesia and weakness; as well as scapular pain and dysfunction. Many of these cervical problems occur from either injury or poor posture. Injury to the cervical spine can be very serious and long-lasting with individuals who suffer a cervical injury oftentimes developing a subconscious protective pattern of restriction. This pattern may include tightening of the sternocleidomastoids,

scalenes, pectorals and biceps muscles. As with many patients with poor posture, tightening of these muscles creates a forward head and rounded shoulders. This posture is also seen in many people suffering from emotional avoidance or psychological stress and anxiety. As you may expect, therapists at Inner Circle Rehabilitation see many patients presenting with cervical symptoms caused by these common postural restrictions.

With this background, we return to our patient Jennifer. When performing a full body evaluation, common postural changes were found. Her shoulders were anteriorly rotated and pulled forward and she displayed a forward head posture with straightening of her cervical lordosis. Her head and neck were pulled to the right with a head tilt to the left. Her left shoulder was elevated as compared to her right, her thoracic spine was in a forward flexed position and she had an exaggerated lumbar lordosis. Through this thorough postural analysis, many problems were identified. As Jennifer's head was pulled forward, her cervical lordosis was lost and a straightening of the cervical spine occurred. This resulted from restrictions throughout the sternocleidomastoid and scalene region. To accommodate this change, her head posteriorly rotated on C1, or the atlas, creating a tightening of the musculature and fascia at the suboccipital region. Restriction of the pectoralis, or chest muscles, added to her anteriorly rotated shoulders. With anterior rounding of her shoulders, several negative changes occurred throughout her upper body. The scapula were pulled forward; stretching and, subsequently, weakening the rhomboids, middle and lower trapezius and rotator cuff muscles. The scapular muscles were activated by the constant pull forward of the scapula, causing them to spasm. These spasms throughout the scapular area were contributing to her radicular complaints and paresthesia into her right upper extremity. These sensitive muscle spasms in the scapular area also fed into poor postural alignment, adding to the restriction into the suboccipital area, with further posterior rotation of the head on C1. These multiple imbalances through her myofascial system increased compression throughout the cervical spine, and contributed to her right upper extremity symptoms; and could have been putting Jennifer at risk for advancing osteoarthritis, degenerative disc disease, stenosis, and bulging/herniated discs. The therapist also recognized there

was a weakness throughout the upper back and core muscles contributing to her flexed thoracic spine and exaggerated lumbar lordosis.

Treatment of these postural problems and their associated restrictions utilized the unique combination of Inner Circle Rehabilitation's manual therapy approach and the exercise system created by Timothy Alloway: The Four Phase. Her treatment plan incorporated Myofascial Release, joint mobilization, muscle energy, craniosacral therapy, upper nerve tension, and acupuncture techniques. While using these techniques, the therapists released specific myofascial restrictions, which were strong and ingrained in the patient and would not have responded to regular modalities or the usual stretching and strengthening programs used by many physical therapy clinics. Without releasing these restrictions throughout the chest, neck, scapular area, thoracic and lumbar spine, Jennifer's symptoms might reappear or never improve. To reinforce the changes achieved through manual therapy, Jennifer was instructed in specific portions of The Four Phase exercise program to assist in balancing the unique asymmetry found throughout her structure.

If you suffer from headaches or migraines, neck pain or stiffness, dizziness, shoulder or upper extremity pain or weakness, sinus dysfunction, or upper extremity paresthesia; Inner Circle Rehabilitation can help! Please do not hesitate to call and remember: when people come to us, they feel better!

Professionally yours,  
James P. Mulholland, MSPT

*For an appointment please call (215) 860-3623*

*“The Natural Force Within Each of Us  
is the Greatest Healer of Disease” – Hippocrates*