Loss of cervical lordosis (the forward neck curve) causes **reduced lung capacity by up to 30%**.

Korr 1975 Bernini Wiesal and Rothman 1982 Davis 1996

Loss of cervical Lordosis causes a **weak Immune system**, **organ disease**, **muscle tension and increased sensitivity to pain**.

Korr 1979

A deviation in the spinal lordotic (forward neck and low back curves) and kyphotic (backwards mid-back curve) curves **increases mortality**, **resulting in 14 years off your life**.

Journal of Bone and Joint Surgery 1981

Loss of a Cervical Lordosis results in an altering of afferent input primarily from the upper cervical region, leading to eventual disturbances in **gait**, **dizziness**, **loss of balance**, **and ataxia**.

Neurology India December 2001

Loss of Cervical Lordosis causes constipation. Forward head posture can add up to 30 lbs. of abnormal leverage on the spine, causing additional strain and spinal misalignment and postural deviation to the entire spine. The entire gastrointestinal system is affected particularly the large intestine. Loss of bowel peristaltic function and evacuation is a common development and effect seen from loss of cervical lordosis. Rene Cailliet 1987

A Loss in the cervical and thoracic spinal lordosis, kyphosis and spinal positioning cause **neurologic disturbances affecting the heart, lungs, and digestive system.** Calliet, M.D. 1975

Cervical injuries alter and disrupt the position and function of C1-C4 and affect the following:

Muscles that Control Eye Movement

Posture

Balance

Gait

Ability to taste, smell and execute speech

Ability to swallow and swallowing patterns

TMJ muscle tension and coordinated movement

Mandibular-cranial position and posture

Dexterity

Rotatory vertigo and bilateral tinnitus

Raymond, 1977 Molina and Wyke 1965 Cailliet and Gross 1987

Cervical Lordosis corrective adjustments increase the patient's ability to aerate his/her lungs, & **improves vital capacity and immune activity**.

Brenne 1991

Atlas subluxations affect **ORGAN FUNCTION**. These phenomena have been demonstrated in such sites as the gastrointestinal tract, urinary bladder, adrenal medulla, lymphatic tissues, heart and vessels of the brain and peripheral nerves.

JMPT Nov 1995

<u>Improved Immune function</u>

T and B lymphocytes numbers, natural killer cell numbers, antibody levels, phagocytic activity and plasma endorphin levels are positively influenced by spinal correcting adjustments (CJA 1993)

Journal of the American Osteopathic Association

1250 infants chosen at random, 211 of them suffered from nervousness, vomiting, muscular abnormalities, tremors and insomnia. 95% (200) of those children had abnormal cervical (neck) muscle strain indicating vertebral subluxation. When the subluxation was adjusted and the muscle strain removed, an immediate calming often resulted, the children's crying stopped, the muscles relaxed and the children fell asleep. The authors noted that an unhealthy spine causes "many clinical features from central motor impairment to lower resistance to infections — especially ear, nose and throat infections." Viola Frymann, D.O. 1966

Chiropractic good for neck pain and safer than drugs

A study done in 1996 and reported in The Journal of Manipulative and Physiological Therapeutics shows that Chiropractic care is not only better than NSAIDS (Non-Steroidal Anti-inflammatory Drugs such as aspirin, ibuprofen, acetaminophen, etc.) at relieving neck pain but that it is safer as well.

The authors of the study noted that they were unable to locate any randomized, controlled tests that examined the appropriate use and effectiveness of NSAIDS for neck pain. They conclude that cervical manipulation, the generic, non-specific medical term for Chiropractic spinal adjustments, is safer than the use of NSAIDS by a factor of several hundred times.

NSAIDS are the typical medical treatment for these situations and work by raising the body's threshold of pain perception. NSAIDS have been shown to cause problems ranging from gastrointestinal bleeding to kidney failure to death.

Loss of Normal Curve Concerns

We find that patients with neck (cervical) pain often suffer from a straightening or reversal of the neck's natural curve. When viewed from the side, the cervical spine should form an arc that's most convex at the mid-neck. Individuals with difficult birth processes, played sports as a child or teenager or anyone involved in an accident can develop a reduced, straightened or reversed neck curve.

Studies show that a straightened or reversed curve weakens the deep muscles of the neck, because these muscles are forced to hold the spine in an anatomically ill-suited posture (Australian Journal of Physiotherapy 1998;44:210). Weakened muscles increase the risk of injury and pain. In addition, a flawed cervical curve disrupts the neck's biomechanics (the way joints, muscles and bones move together). In other words, if you have a straightened or reversed neck curve and are involved in an accident, you are more likely to sustain a serious injury than if you have a normal neck curve. Altered spinal biomechanics are associated with an increased likelihood of osteoarthritis which is another painful malady.

One study enrolled 119 patients with neck or back pain. Standard measurement tools were used to evaluate the subjects for pain and disability. The patients underwent chiropractic care, including receiving chiropractic adjustments. Subjects visited their chiropractors an average of 12 times over a 4-week period.

Findings revealed an average 54% drop in pain and a 49% drop in disability among subjects with neck pain. "Patients attending a private chiropractic clinic for treatment of mechanical neck pain or low-back discomfort had statistically significant reductions, in their pain-related disability after treatment," concluded the study's authors. "These results indicate that chiropractic manipulation [adjustment] is beneficial for the treatment of mechanical neck pain and LBP (Journal of Manipulative & Physiological Therapeutics 2000;23:307-11).

Besides restoring the neck's natural curve, research suggests that adjustments to the spine also quell another neck ache instigator: muscle tension (Journal of Manipulative & Physiological Therapeutics 1999;22: 14953).