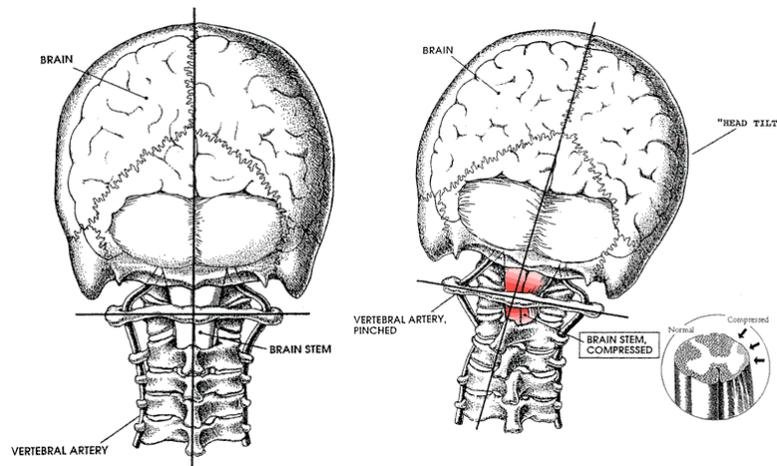


# THE RELATIONSHIP BETWEEN POSTURE AND HEALTH

Roger Sperry, Ph.D. (Nobel Prize in Physiology or Medicine 1981) discovered that 90% of the brain's activity is used to balance your body within the gravitational field of earth. If your body is mechanically distorted, it will affect the other 10% of the brain's activity, which controls all the other body functions such as breathing, digestion and cognition.

If the body framework (bone structure and spine) is in an off-balanced or misaligned position it can impede or block the electrical and chemical transmissions of the nervous system, which controls all of your body's functions. This interference to the nervous system can cause or contribute to all kinds of symptoms and illnesses (in other words, the feeling that "I am hurting or I am sick").

Published research studies indicate that when body balance is restored, the body enters a healing cycle that alleviates pain and symptoms, elevates the immune system, increases blood and oxygen circulation, normalizes nervous system communication and creates more optimum body performance ("I feel good again").

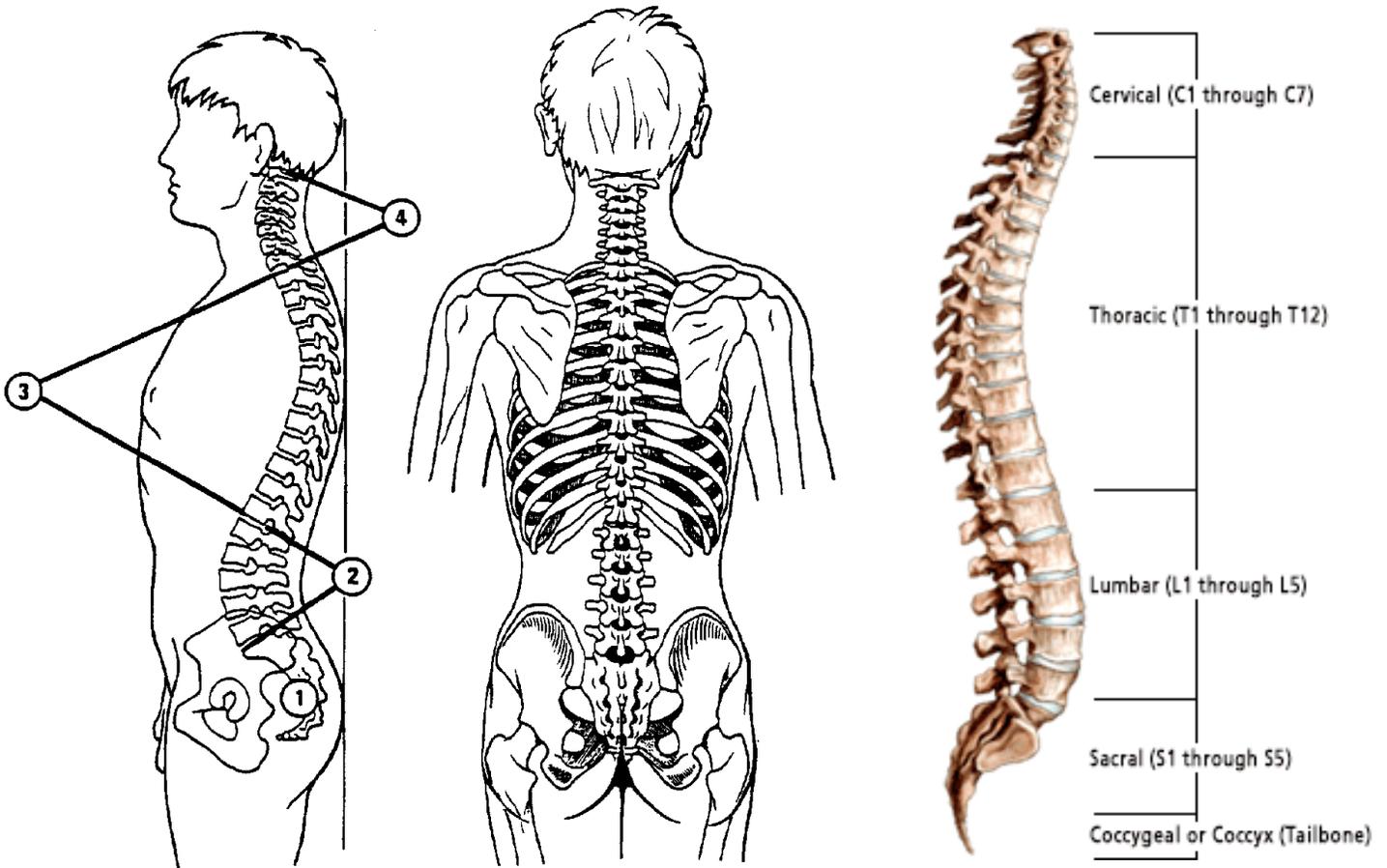


When head tilt develops (as pictured above) and the body becomes imbalanced, the brain stem is compressed, restricting the flow of communication between the brain and body. Health and healing messages are restricted in the part of the body serviced by these compressed nerves. Diminished and impaired function and pain follows. This can cause pain and suffering and decrease the quality of your life.

When the body is balanced, there is no stress or tension on the brain stem. This allows communications between the brain and body to travel back and forth unimpeded, promoting maximum health and healing.

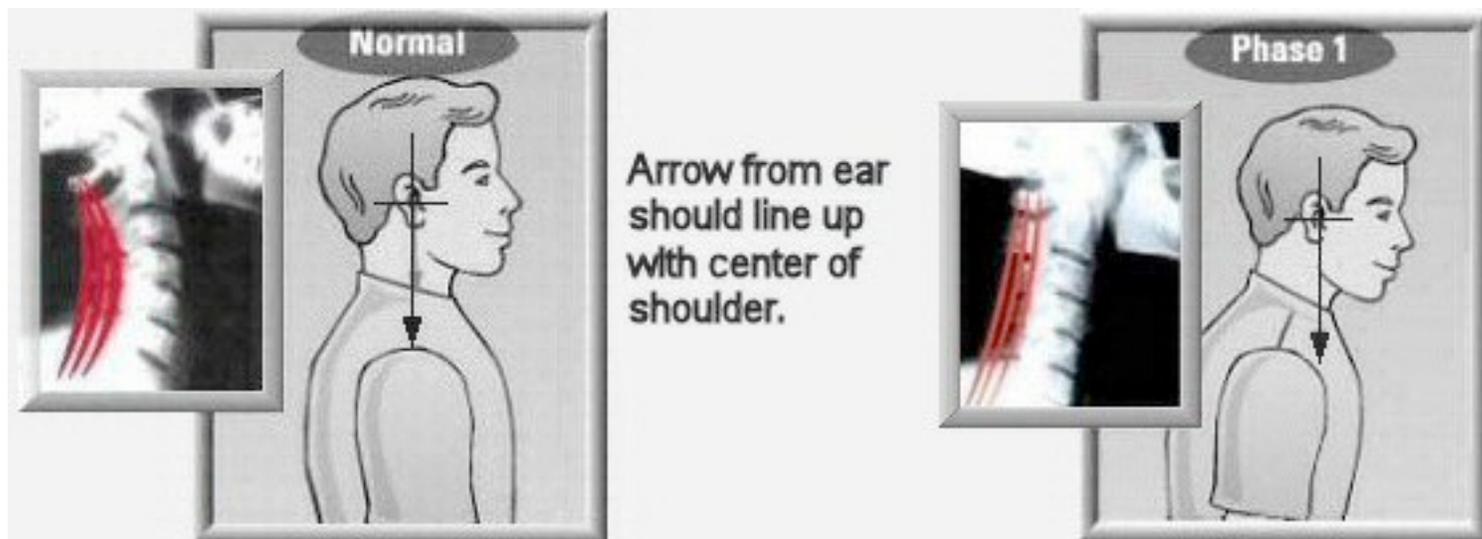
**A BALANCED BODY WILL MAINTAIN HEALTH AT ITS OPTIMUM LEVEL.**

## PROPER SPINAL CURVES OF THE BODY



There are two views to assess the body's posture; lateral and anterior-posterior. When viewing the spine from the anterior-posterior (front to back) position we're looking for balance from side to side. Look at the middle diagram (posterior-anterior view), you can see that the ear, shoulder, hip and leg height are equal on both sides and the spine is straight with each vertebrae level. Imbalances will be shown with head tilting, a higher shoulder or hip and a shorter leg. A lateral view demonstrates four curves of the spine: Cervical (neck), Thoracic (mid-back), Lumbar (low back) and Sacral (tailbone). These curves are necessary for proper support and structure of the body.

Through the stresses and activities of daily life, it's usually the cervical (neck) curve that decreases or is lost completely. See diagram below.



Over time, if the problem is not corrected and maintained, it will progress further. As this progression occurs, the body must compensate elsewhere to alleviate the stress/tension created from the imbalance.

## THE DANGERS OF FORWARD HEAD POSTURE (FHP)

The danger of FHP is the domino effect. As the cervical curve is lost, the head protrudes forward shifting the body's center of gravity. To compensate, the upper body drifts backward and the hips tilt forward. This 'new' improper body alignment develops unstable environments structurally and decreases the function of the nervous system. So Forward Head Posture can not only be the cause of neck pain/discomfort but also:

Headaches	Muscle spasm/tightness
TMJ problems	Reduced endorphin production
Mid-back pain	Decreased range of motion
Low back pain	Increased fatigue
Reduction of vital lung capacity	Gastro-intestinal problems
Cramming of internal organs	Loss of overall height (postural distortion)
Emotional instability	Loss of balance or dizziness
Arthritic development	Hip, knee, ankle, foot issues

As the body compensates for the loss of the cervical curve, other areas of the body (over time) will be affected too, including the nervous system. The research study, "The Impact of Positive Sagittal Balance in Adult Spinal Deformity", Spine Magazine, 30(18):2024-2029, September 15, 2005; addressed the correlation between individuals with forward head posture (positive sagittal balance) to their overall health and symptoms. The results stated all measures of health status showed significantly poorer scores as the C7 plumb line deviation increased. In other words, an individual's measured health status decreased significantly with a forward head posture and was proportional to the amount of forward head posture.

## HOW DOES FORWARD HEAD POSTURE DEVELOP?

Forward head posture can develop from a traumatic incident, such as a car accident or a severe fall, and/or from months to years of posture neglect caused by work environment, hobbies, daily habits, nutrition and even emotional stress.

Whiplash, which is experience in most car accidents, accelerates the rate and development of forward head posture due to rapid extension-flexion motion and damage to the ligaments & tendons of the cervical spine. This damage and muscle splinting will rapidly develop into forward head carriage unless proper care and treatment is rendered.

Most individuals develop forward head posture over a period of months, sometimes years. Individuals that work with computers or at a desk are more prone to develop FHP.



As seen in the picture on the left, people tend not to mind their posture while working. The proper workstation is seen on the right. There are other factors that lead to FHP over time and include: certain hobbies/activities, other job professions with negative posture environments, poor driving, sitting & standing habits, pregnancy/obesity, weaken/tighten muscles, nutrition, and emotional stress.

## **SUMMARY OF POSTURE, HEALTH AND YOU**

Posture is the window to the spine. Improper posture, such as FHP, correlates to distortions in spinal vertebrae alignment. Vertebral misalignment is an indication of subluxation – a condition treated only by chiropractors. Subluxation is a complex condition consisting of the spinal vertebra, joints and discs causing changes in nerve function and irritating the spinal musculature. Subluxation interferes with the function of the nervous system—which controls the body’s ability to function. This means subluxation can disrupt the body’s function leading to symptoms of pain but also organ dysfunction, decreased range of motion, arthritis and just an overall loss of health.

As one of the most prevalent postural deviations, forward head posture is as simple as it sounds. It’s the treatment that’s a little more sophisticated. Most people spend too much time at their computers, in their cars, and walking around with their head forward of where it should be.

The most important factor in avoiding and correcting postural deviations is education and awareness. Chiropractic adjustments, stretching/strengthening exercises, and proprioceptive re-training are key factors and must be addressed too. My job is to work with you on each level; adjust, educate and improve your health and overall well being.