



**VERTEBRAL SUBLUXATIONS
AND
ACCELERATED AGING**

By Keith Wassung

Americans are living longer than ever before. The human life expectancy is increasing and barring unforeseen circumstances, we can expect to live to a ripe old age—that is a ripe old calendar age. Though our life expectancy has increased, the quality of our lives and our health has not. The United States continues to be one of the unhealthiest nations in the developed world.



Most of us do not want to live to be 90 if the last 30 years are filled with illness, disability and dependence of family and nursing homes. We want to be able to play golf, take long walks and enjoy our families. We want those extra years to be quality years. Longer lives do not mean much if they are not active lives. The quality of those years will largely be dictated by the choices we make in the preceding years, choices designed to stave off the aging process.

GENETICS & AGING

Assuming that a person's entire life is "written" in the genes that they are born with has been a major mistake in recent health care philosophy. The more we learn about genetics, our biological inheritance, the more we realize that for the most part, our lifestyle decisions and behaviors have far more impact on longevity and health than does heredity. A person's genes define their basic biology, but health decisions and habits control the way genes will affect the body and health in general.

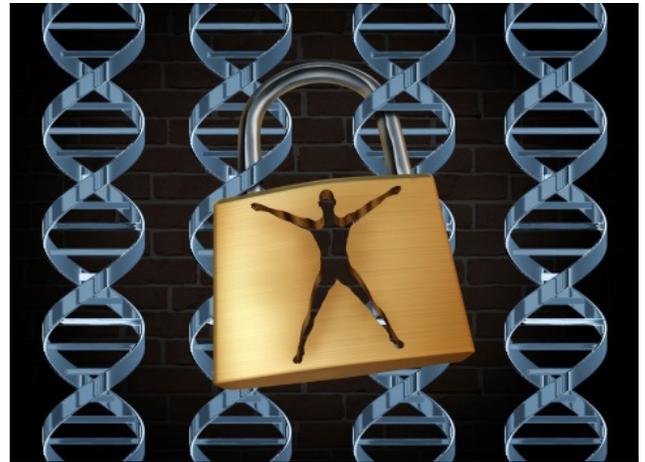


“Genes are unquestionably the fundamental units by which our bodies are constructed. However, pure genetic determination does not adequately explain the varied capabilities of our biology. A more accurate view of the role of the genome is to see the genes as providing the overall plan for the developmental pathways. The environment to which the individual is exposed will modify the actual pathway.”¹

PETER NATHANIEL, M.D.
Life in the Womb

“The major function of your genes is to transmit health and the inborn resolve to remember wellness. In the sickness paradigm, we are taught that disease-carrying genes determine our destiny. This is a false view. If we were truly destined to live by our genes, we would suffer from the thousands of diseases experienced by our ancestors for as long as we lived, which would not be very long at all. Disease-carrying genes are not our destiny, because they must answer to our inner compass—our healing force.”²

EDWARD A. TAUB
"America's Wellness Doctor"

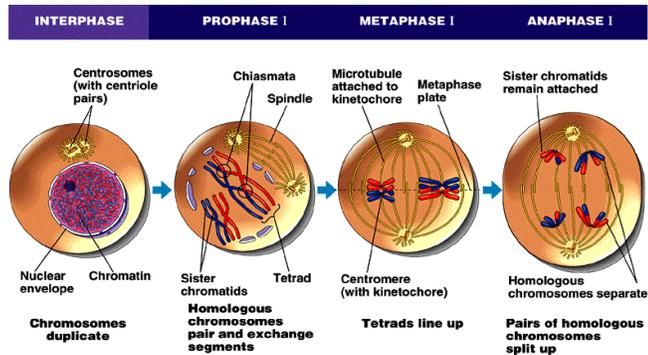


“The environment in which you grow up is as important as your DNA in determining the person you become. Certain genes can lead to vulnerability, but not inevitability.”³

NEWSWEEK

A NEW PARADIGM OF AGING

It used to be thought that aging is the ticking away of some internal clock to a predetermined plan laid down in your genes. Dr. Leonard Hayflick, a noted research scientist, grew human cells in tissue cultures and showed that they could subdivide to create new cells only a limited number of times.



This *fibroblast replicative limit*, as it was termed, appeared to show that the human cell has an inbuilt timer that eventually runs down. The evidence looked good and the study was repeated in several laboratories, but numerous scientists could not accept the aging “clock” theory.

One problem with tissue culture experiments is that the life of the cells is dependent upon the adequacy of their nutrition. If there is even the slightest deficiency in the nutrient, medium used to grow the cells or in the air, water or temperature, or any one of a hundred variables, then the cells will accumulate damage.

Every successive cell division is then progressively impaired until the cells no longer replicate and dies. These cell deaths have nothing to do with an internal clock, but are caused by environmental damage.



Chronological age is not biological age. How do we know this? There are two main lines of evidence.

First, though average levels of many physical functions show a progressive decline with age, there is a wide variability within aged groups. Some individuals show no decline at all. That these individuals exist indicates that chronological aging is not an inevitable cause of biological aging



Often a person will blame a health condition, such as a bad shoulder, a bad knee, etc on their age. But if age were to blame, then it would stand to reason that both shoulders and both knees would be degenerated and not just one limb. These problems are due to cumulative stress and traumas, not to the passage of time.

The second line of evidence that aging is in fact degeneration caused by abnormal stress is the continuing discoveries that aging process previously considered natural do not occur at all in some human populations. Blood pressure for example, rises with age in the American population, and used to be considered an inevitable part of aging. Science knows now, however, that there are numerous populations, mostly isolated from Western society, in which the elderly have the same blood pressure as the young. Science has known that rising blood pressure is caused by complex factors in the environment of Western society.

When members of populations migrate to western society, their blood pressure begins to rise with a few years.

Osteoporosis is a major health concern for western women; however, women in other cultures around the world do not suffer from osteoporosis and similar degenerative disorders.



TIME IS NOT THE ENEMY

The Human Body is an amazing collection of synergistic entities controlled by what can only be described as innate intelligence. The body is designed to be totally self-functioning and self-healing.

We tend to think of healing when we suffer a cut on our arm or have broken a bone, but healing is a constant process of replacing old cells with new cells.

For example, red blood cells are replaced at a rate of about 100 billion a day, with one trillion total red blood cells in constant circulation.

The body is constantly analyzing what is happening within the body and what is happening in the environment outside the body and makes adaptive changes as necessary.

Aging can best be defined as the gradual loss of the body's ability to respond to the environment.

Aging, per se, is not just the effects of chronological time, but also the abnormal stress we place on our body, which gradually breaks it down.

This is caused by a number of things by including inactivity, chemical pollution and neurological and postural stress.

INACTIVITY & DISUSE

The human body is designed to move. The technological age of labor- saving devices and sedentary living often detracts from the biological necessity for movement.

Disuse is deadly; many degenerative diseases plaguing Americans have a portion of their roots in sedentary, inactive lifestyles. as much as 50 percent of the decline in physiological functioning--weak muscles, stiff joints, low energy levels--is actually due to disuse and not a normal consequence of age,"

The human body is designed to move. The technological age of labor- saving devices and sedentary living often detracts from the biological necessity for movement. Disuse is deadly; many degenerative diseases plaguing Americans have a portion of their roots in sedentary, inactive lifestyles. As much as fifty percent of the decline in physiological functioning--weak muscles, stiff joints, low energy levels--is actually due to disuse and not a normal consequence of age.

"More people die of a sedentary lifestyle than from smoking." ⁴

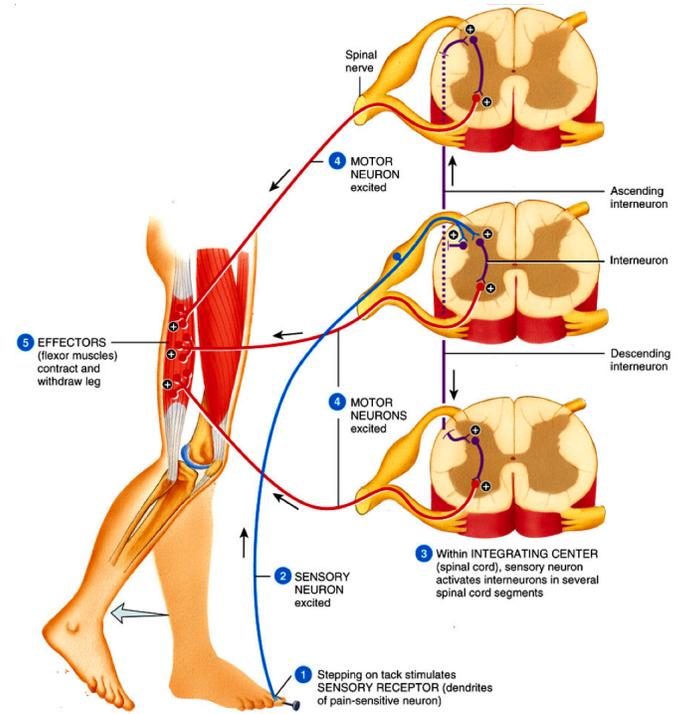
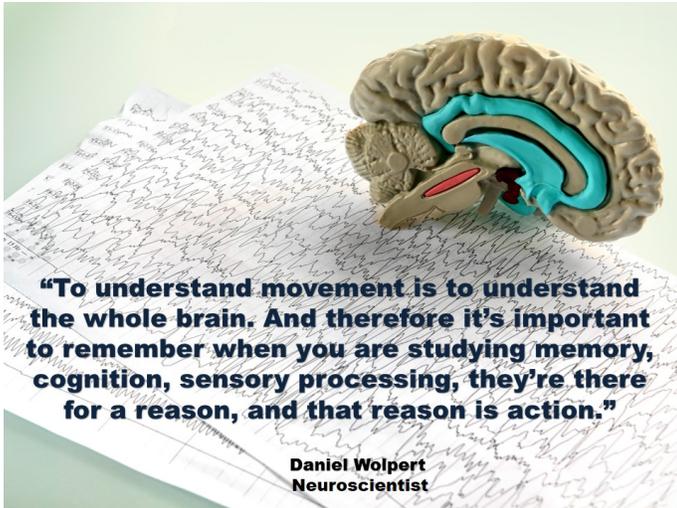
C. Everett Koop, Former Surgeon General of the U.S



Without movement you could not sustain life: blood cells that don't move cannot transport oxygen, lungs that don't move can't breathe, hearts that don't move can't pump blood, and spines that don't move can't create the motion required for proper joint nutrition, for the activities of daily living, or for the stimulation of the joint-brain pathways required for proper brain and body function.

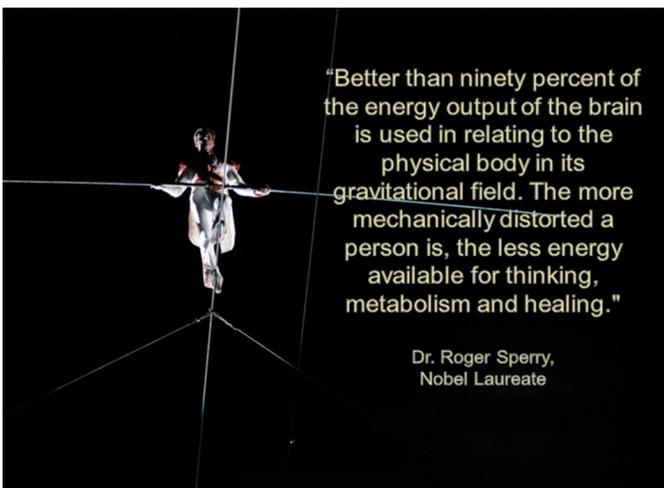
Spinal movement stimulates brain function in the same way that a windmill generates electricity for a power plant. Half of all the nerve impulses that are sent between your brain and body in your spinal cord are for the delivery of movement stimulation to the brain.

The joints of the body act as sensory chambers, which relay proprioceptive information between specific neural pathways and the central nervous system (CNS). These neural pathways also transport the necessary sensory motor information, which modulates muscle function.



This enables the brain to coordinate activities such as concentration and learning, emotions, motor control, and organ function. Movement charges your brain's battery and makes you able to think better, feel better, and function better, all of which are essential to health and longevity.

The disruption of muscle and joint mechanoreceptors from physical trauma results in partial deafferentation of the joint and surrounding musculature, thus resulting in diminished proprioception and increased nociception. This predisposes the joints to further injury and accelerates the degenerative aging process.



“Mechanoreceptors in cervical facet joints provide major input regarding the position of the head in relation to the body. With aging, mild defects impair mechanoreceptors function. With decreased proprioception, body positioning in space is impeded and the patient becomes reliant on vision to know the location of a limb. To compensate for the loss of proprioception in the legs, the feet are kept wider apart than usual. Steps become irregular and uneven in length. As impairment increases, the patient becomes unable to compensate. With severe loss of proprioception, the patient is unable to get up from a chair or rise after a fall without assistance.”⁶

Proprioception is the term used to describe the ability to sense the position, location, orientation and movement of the body and its parts, all which are important to movement and brain function.

Spinal proprioception plays a critical role in modulating protective muscular reflexes that prevent injury or facilitate healing. Sensation is the fundamental ingredient that mediates the proprioceptive mechanism.

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