

THE NEURAL IMPULSE

By Dr. Derek Conte

Raise your right hand. Now point your arm to the front of you. Now touch your nose with your right index finger. Simple, yes? Well, physiologically, it's a bit more complex. What you've done is a series of muscular movements begun in the brain and transmitted along various nerves to cause a coordinated firing of the back, shoulder, arm, wrist and hand muscles. Even muscles of the legs and trunk are involved to maintain your overall balance when the arms or head are moved. This transmission, called the neural impulse, is especially well known to chiropractors.

The neural impulse begins in the pre-motor cortex of the frontal lobe of the brain with the thought or "intention" to make a movement. This intention is relayed backward to the motor cortex where the giant cells of Betz experience a quick shift in voltage (depolarization) and start an electrical domino-effect descending through the corona radiata and thalamus to the medulla oblongata, where the impulse crosses over to the opposite side and moves down the spinal cord ---this is why the right brain controls the left side and vice versa. The impulse continues down the cord and exits at the appropriate level, passing through the space between the vertebrae (spinal bones) and then travels along the peripheral nerves (dominoes still falling) to the muscles you intended to

move. Here, at the muscles, chemicals are released causing their contraction until the "intention" that started the whole process is removed, interrupting the circuit and relaxing the muscles. The nerve then quickly resets itself and is ready for the next firing.

The neural impulse from the brain not only controls the voluntary muscular movements we use to work and play, but controls every involuntary movement and signal to every organ and gland in our body.

Every beat of your heart, every breath, every tear you shed, the changing focus of your eyes, the flow of your blood, the multitudinous movements of your digestion and elimination are all the result of this brain-body connection. When

this vital communication is disturbed, then health and function are compromised and illness and disease ensue. Illness and disease are not caused by a lack of drugs but by a lack of the body's ability to heal and self-regulate.

The maintenance of the neural impulse, by adjusting the bones of the spine, is the primary objective of a chiropractor's work. The very first step to health is to promote normal function in the body which has been perfected by the Creator and the eons of adaptation by which we've survived.

Dr. Derek Conte is a founding member of the new Chiropractic Specialists on Concord Rd. for questions, please call: 404-784-6008.



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