

Decrease in Neuronal Pools Condensed Version

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The brain is a symphony of neurons working together to make you human. They survive on Oxygen, Fuel (glucose), and activation. Activation is very important to neurons. When you open your eyes and you see things in your environment that is because the light activated neurons within your retina that send electrical signals via long projections called axons (also called the optic nerve) which project into the back of your brain and communicate (synapse) with other neurons. The neurons in the back of your head are located in the occipital lobe or Calcarine cortex or visual cortex.....all are synonymous.

When these neurons are ACTIVATED, they represent the images in your environment and you are able to see!! If you were to lose an eye you would lose a level of activation of the brain and soon the brain would begin to change in order to make up for the loss of activation from the eye.

You don't have to lose an eye to lose activation. Some things activate the brain more, some less, some constant, and some non-constant. The eyes, the ears, the nose, the tongue, are examples of things that activate the brain but not constantly.

Gravity is the only constant here on our planet which constantly activate your brain. The spine houses the greatest majority of small nerve receptors (**muscle spindles- 1A afferents**) that activate the brain. Humans walk on two feet so our spines are in greater gravitational stress so the constant forces of gravity leads to greater activation of the brain. Some people see, hear, smell, and taste less because the brain is less functional due to losses of constant activation from the spine

The cervical /neck represents the area with the greatest population of these receptors that activate brain and this decreases as you go further down the spine. The best doctor must not only understand this but take into account how much stimulation each area provides to brain and then adjust appropriately so as not to OVER activate the brain. The brain does not like to be over stimulated or some neurons may die.

When there is a loss of normal spinal biomechanical motion either from trauma or everyday overuse these muscle spindle receptors decrease their frequency to firing and one side of the brain loses activation. This creates a deficit of the neurons on that side of brain leading to fatigability. Without activation neurons make less energy and are less efficient. Therefore the brain on the side of deficit decreases its output to nuclei or pathways that control body ability to function correctly and the body's health starts to deteriorate and finally PAIN.

Unlike the medical avenue which consists of numerous exams and diagnostic tests to rule out other probabilities. As a patient, is evaluated, each system is considered to determine if it is intact and its precise state of functioning. A chiropractic neurologist is able to determine systems functionability by its fatigability. The faster a system fatigues the poorer its functional output. Stimulating/ activating neurons of the system improve its health increasing its ability to function to optimum levels.