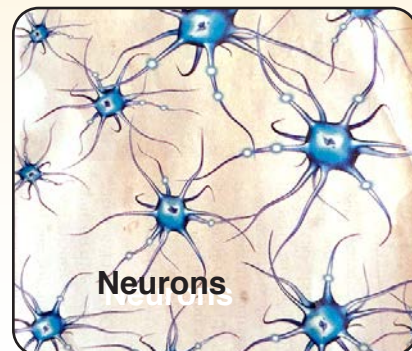
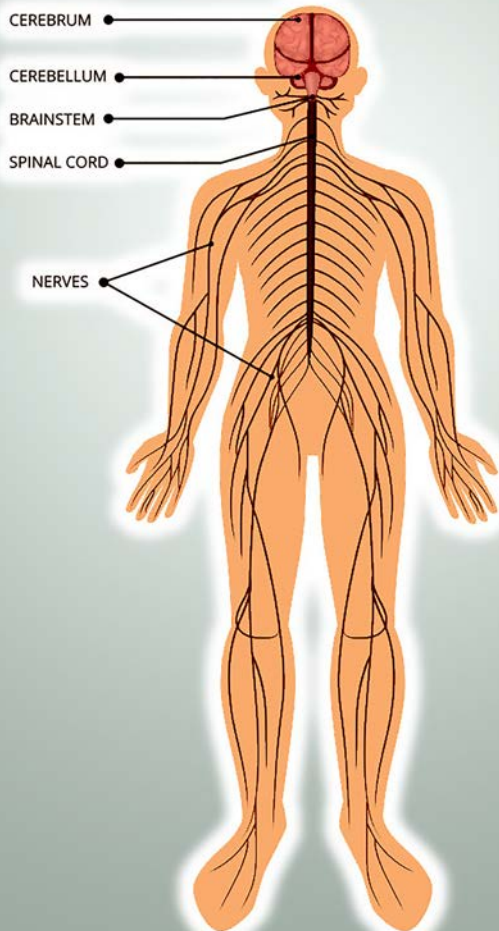


The Nervous System

The Human Nervous System



The basic component of the nervous system is the Neuron. Neurons have special structures that allow them to send electrical signals rapidly and precisely to other cells along fibers called axons, which connect to neighboring cells at synapses.

The connections between neurons form neural pathways, circuits, and networks that add up to our perception of the world, run most of our functions, and determine our behavior. The basic design, as in all higher animals, consists of a brain, atop a spinal cord, with segmented branches to all body zones.

Our nervous system has three components: **The Central Nervous System (CNS)** is the brain and spinal cord. **The Peripheral**

Nervous System (PNS) is the pairs of nerves exiting the spinal cord at all vertebral spaces. The third division, running closely parallel to the spine is the **Autonomic Nervous System (ANS)**, which is concerned with stimulation and inhibition of all of our internal organs.

The Autonomic Nervous System governs the crucial life-long task of Homeostasis: keeping all of our internal functions and chemistry within optimal ranges. This includes blood

pressure, pulse rate, blood/oxygen level, blood/glucose levels, etc. The ANS consists of two branches: Sympathetic and Parasympathetic.

The Sympathetic branch is stimulatory and includes the Stress Response. The Parasympathetic branch is inhibitory to the Sympathetic, and is active in rest, sleep, and digestion. It governs the Relaxation Response. The traditional siesta gives the Parasympathetic branch good, uninterrupted time.

The Executive section of the brain is the Cerebral Cortex. It has two hemispheres, left and right, and each hemisphere has four lobes: Frontal, Temporal, Parietal, and Occipital, each controlling several special functions.

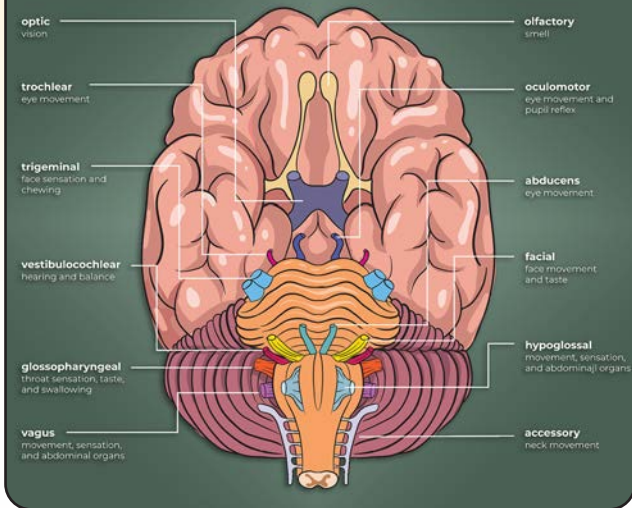
In humans, the number of neurons and connections (synapses) within the Cerebral Cortex is astronomical. The most accurate estimate of the number of neurons is 100 billion... The most accurate estimate of connections (synapses) is four quadrillion (4,000 trillion)! Such a number is comparable to the total connections built into the worlds most advanced present-day computers.

It is the Cerebral Cortex that houses our volition, coordination,

In prior articles, I expressed gratitude for all of our primary senses: Vision, Hearing, Touch, Balance, Taste, and Smell. All of these marvelous senses are coordinated by our Nervous System.

The Nervous System is a grand, elaborate, communication and coordination network. Like the circulatory system, it reaches every part of our anatomy. Also, like the circulatory system, it is active every minute of every day, and it is crucial to our ongoing well-being.

12 CRANIAL NERVES



memories, thoughts, feelings, and communication (tactile and verbal). The mutations that led to the computing power of the human brain, starting about 100,000 years ago, led to tool-making and language, and greatly favored our survival as a species.

How can we best take care of our awesome nervous system?

1. **Exercise daily:** Physical exercise utilizes balance, coordination, strength, and endurance. It helps overall circulation and oxygenation of the brain and the entire nervous system.

2. **Eat nutritious foods:** Especially eat fresh fruits and vegetables, lean proteins, healthy fats, and whole grains to sustain brain power and mental health. Stay well hydrated.

3. **Rest well:** Aim to get eight hours of sleep each night. In daytime, take breaks, changes of pace, and naps.

4. **Stay connected:** Social support and relationships are essential for mental health.

5. **Give your brain a workout:** Challenge yourself with sports,

dance, reading, hobbies, learning a new language, or playing a musical instrument.

6. **Calm your nervous system** with Yoga, Tai Chi, meditation, quiet time, and restful pauses.

We have the power to guide our thoughts in soothing directions. We can use soothing words, touch, images, and breathing.

Soothing words can take the form of gratitude. Mindful pauses can be gratitude pauses.

In conclusion, we are endowed by the Tree of Life, with the finest instrument in the known Cosmos. It is connected to every part of our body and involves every aspect of our lives. It keeps us safe and thriving. It is the essence of staying connected and staying in balance. It flourishes on the care and love we give to it. ■

— *Namaste!*

Dr. Shapiro is a career clinic physician who has utilized relaxation techniques with many of his patients. Prior articles by Dr. Shapiro



can be found in the [Archives at NaturalLifeNews.com](#). His YouTube channel is: "[Arnie Shapiro, MD • Breathing Easy.](#)"

Email Dr. Shapiro at: alloyd-shapiro@gmail.com.

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