

# ALPHABETICAL BRAIN™ VOCABULARY HUMANIST FAMILY BRAIN STUDY

## DETAILS ABOUT YOUR NEURONS?

Brain Flash Card #2

September 3, 2018

## WHAT ARE YOUR NEURONS? AND WHY ARE THEY SO IMPORTANT?

Your **neurons** are specialized brain cells that make it possible for the many physical structures of your body to communicate with each other. They also make it possible for you to communicate with yourself and others. This is an enormous fact!

Typically, as many as **10,000-15,000 dendrites** are attached to the **cell bodies** of all of your **100-200 billion neurons** but there can be as few as **one dendrite** attached to a **single cell body**.

Your **neurons** are the basic building blocks of your brain and nervous system. They make up about 20% of the cells in your head. The other 80% (**glial cells** and bone cells and blood cells) are cells that protect your **neurons** and support the functions of your body's nervous system.

Your **neurons** are able to send and receive **biochemical currents** (ionic signals/impulses) all around your brain and up and down your body but only in **one direction within each neuronal pathway**. All aspects of your many **memory systems** depend upon the smooth functioning of all of your neurons and all of their synaptic connections.

All of your neurons are connected to each other by your **synapses**, which relay biochemical signals through an electro-chemical **transduction process** known as **potentiation (long-term potentiation)**. The **potentiation process** is explained in the paired flash cards and essay for **Brain Idea #8 = POTENTIATION**.

**RECOMMENDATION:** Print this pdf version and read it. Underline or color highlight the most important brain ideas to save them in your long-term memory. Then re-read your mashup of these ideas in a few hours and a few times during the next few days to take advantage of the **spaced-repetition** method of learning.

Voila! You will be able to use them in your serious introspective thinking about your **self-identity** and feel them in your **self-awareness**.

**NOTE:** See also dendrites #3, axons #4, nucleus of a neuron #5, glial cells #6, synapses #7, potentiation #8, connectome #9, plasticity #10, cerebrum #11, and prefrontal cortex #12.