

# Neuroscience Overview



The following video is well worth the few minutes it takes to watch it!

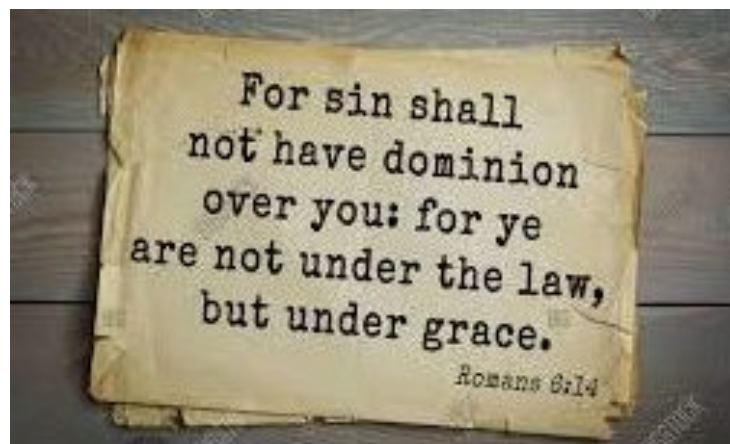
Video @ <https://vimeo.com/599159688> (less than 2 minutes)

Two individual components of neurons are called axons and dendrites. Axons carry electrical signals away from the body of the neuron and dendrites receive electrical signals from other cells. In other words, this is how your brain tells parts of your body what to do. When you decide to get up from a chair you're sitting in, the electrical signals sent from your brain to the nerve cells in other parts of your body are responsible for your ability to complete this action. Today, psychobiologists devote much of their time to studying the brain, which is part of the central nervous system.

The central nervous system is made up of the brain and the spinal cord. These are both directly related to human behavior. The communication between the brain and the body occurs because of a process known as neurotransmission. In this process, chemicals known as neurotransmitters are released, causing activity in other neurons. There are many different kinds of neurotransmitters, and they all have different functions. Different neurotransmitters are responsible for regulating sleep, mood, appetite, pleasure, and motor function.

Both the brain and the spinal cord are responsible for sending these messages. You can think of the spinal cord as a pathway that allows messages to travel through the body. The brain is like the command center of the body, sending out the important messages. For example, if you accidentally touch a hot burner on a stove, you most likely pull your hand away quickly. This is because your spinal cord carried a message from your hand (hot), through your body to your brain, and then from your brain (pain) back through your body to your hand, which you quickly pull away.

(adapted from study.com)



## The Romans 6:12-18 phrases in red describe sin addiction:

<sup>12</sup> Therefore do not let sin reign in your mortal body, that you should obey it in its lusts.

<sup>13</sup> And do not present your members as instruments of unrighteousness to sin, but present yourselves to God as being alive from the dead, and your members as instruments of righteousness to God. <sup>14</sup> For sin shall not have dominion over you, for you are not under law but under grace. <sup>15</sup> What then? Shall we sin because we are not under law but under grace? Certainly not! <sup>16</sup> Do you not know that to whom you present yourselves slaves to obey, you are that one's slaves whom you obey, whether of sin leading to death, or of obedience leading to righteousness?

<sup>17</sup> But God be thanked that though you were slaves of sin, yet you obeyed from the heart that form of doctrine to which you were delivered. <sup>18</sup> And having been set free from sin, you became slaves of righteousness. Romans 6:12-18

Romans 6:12-18 is a neurospiritual passage because it is describing biological, emotional and spiritual brain activities that lead to brain addictions.. Neurons and neurotransmitters are involved in these events.



## Neuroscience Overview

### Test & Answers

#### **How does your brain tell parts of your body what to do?**

Two individual components of neurons are called axons and dendrites. Axons carry electrical signals away from the body of the neuron and dendrites receive electrical signals from other cells. In other words, this is how your brain tells parts of your body what to do.

#### **What happens in your brain and body when you accidentally place your hand on a hot surface?**

The brain is like the command center of the body, sending out the important messages. For example, if you accidentally touch a hot burner on a stove, you most likely pull your hand away quickly. This is because your spinal cord carried a message from your hand (hot), through your body to your brain, and then from your brain (pain) back through your body to your hand, which you quickly pull away.

## What are the 5 phrases in Romans 6:12-18 that describe “sin addiction”

<sup>12</sup> Therefore **do not let sin reign in your mortal body, that you should obey it in its lusts.**

<sup>13</sup> And **do not present your members as instruments of unrighteousness to sin,** but present yourselves to God as being alive from the dead, and your members as instruments of righteousness to God. <sup>14</sup> **For sin shall not have dominion over you,** for you are not under law but under grace. <sup>15</sup> What then? Shall we sin because we are not under law but under grace? Certainly not! <sup>16</sup> Do you not know that to whom you present yourselves **slaves to obey, you are that one's slaves whom you obey,** whether of sin leading to death, or of obedience leading to righteousness?

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## Why is Romans 6:12-18 a neurospiritual Scripture?

Romans 6:12-18 is a neurospiritual passage because it is describing biological, emotional and spiritual brain activities that lead to brain addictions.. Neurons and neurotransmitters are involved in these events.