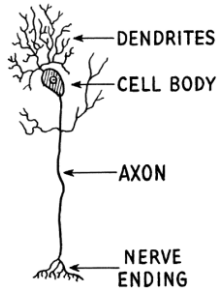




What's a Neuron?

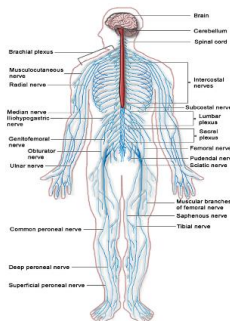


Neurons are the cells of your nervous system.

Your nervous system is in charge of your body's senses and communication.

Your brain, spinal cord, and many small nerves make up your nervous system.

Your nervous system is similar to a large tree with many branches. The trunk is the spinal cord and the rest of the branches are your nerves. The large mass of leaves is your brain.



Information travels extremely fast through your nervous system. If you touch a hot stove with your hand, the message that the stove is burning your hand immediately gets sent from your hand to your brain. Your brain interprets the information and immediately sends a message back to your hand so that you will remove it.

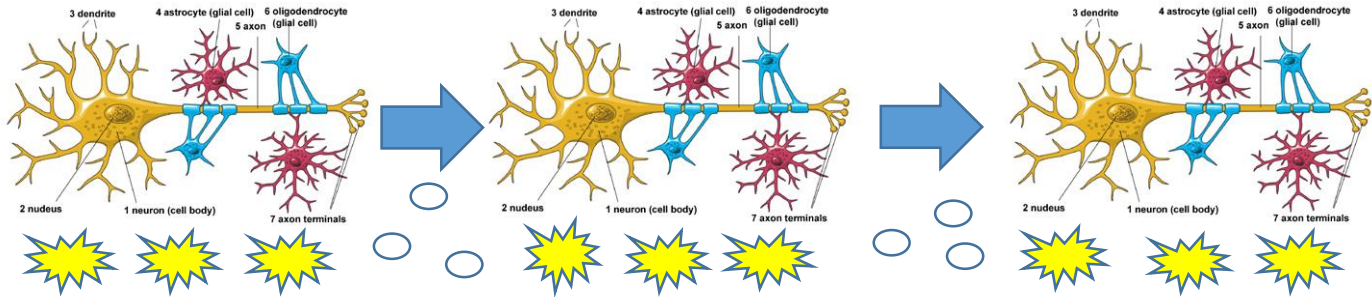
Describe the nervous system response if you were to touch the hot stove by accident.



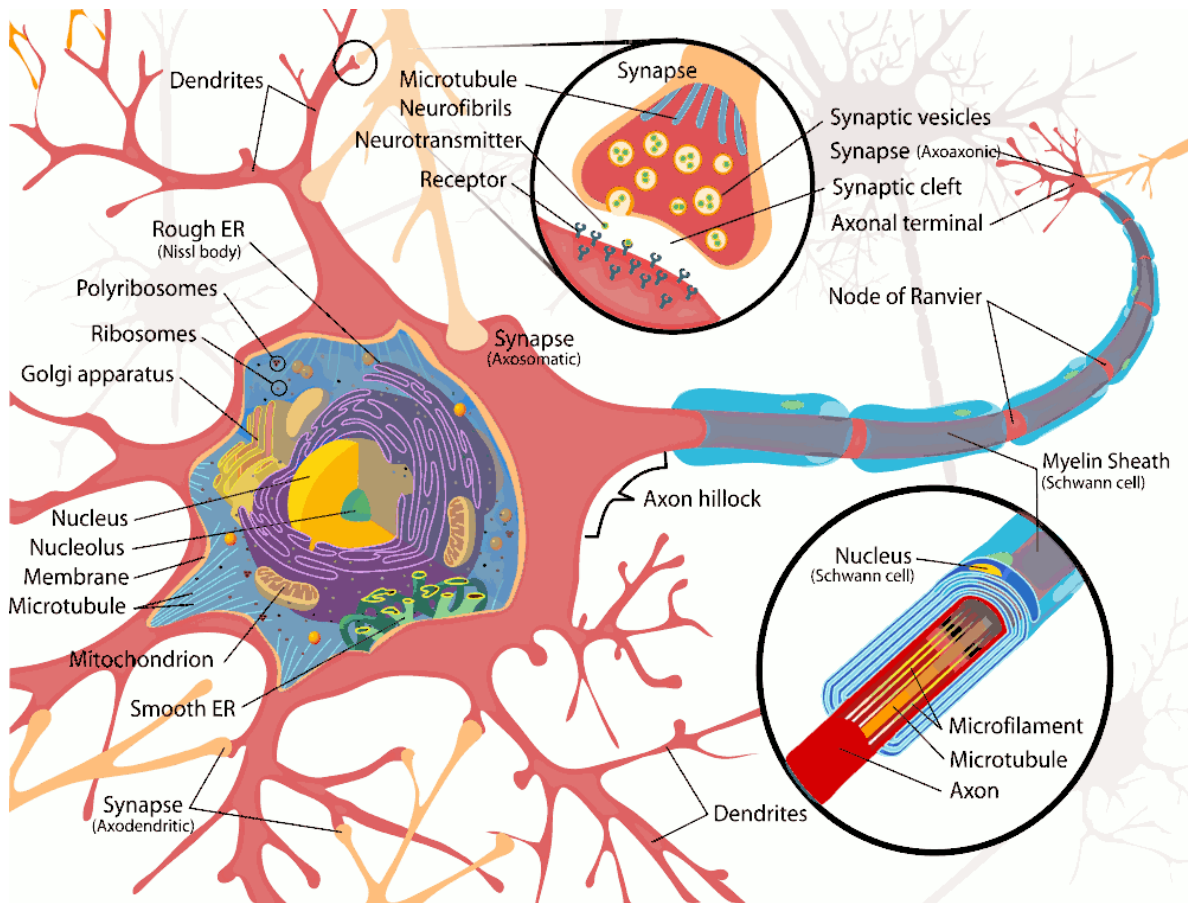
_____ touches stove → message is sent to _____ → brain sends message through nerves to hand to remove it from heat.



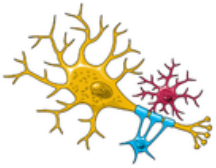
Your nervous system works a bit like wires sending messages across them. Many tiny neurons are connected to one another and the message travels through the neurons as they do outside your home onto your computer screen or television



Messages are sent in the form of electrical impulses across the neurons. At the junctions between the neurons, chemicals, called neurotransmitters, help the electrical messages get across to the next neuron.

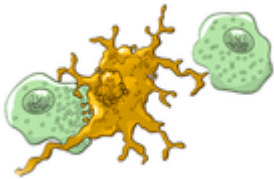


You should take care of your neurons even though you have billions of them in your body. When you are born, your brain contains many neurons, but they are not all connected to one another. It is the connections, or pathways, that form when we learn something. Your brain is not going to make any new neurons if the ones you have are destroyed. Your brain is like a big spider web of nerve cells. The way you get smarter is to make a “bigger and stickier” brain, meaning create more pathways and connections among the neurons.

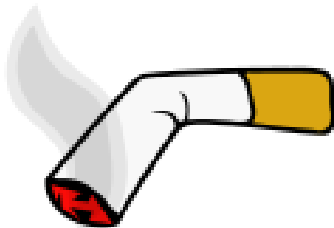


How can the items in these pictures protect and connect the neurons in your brain?

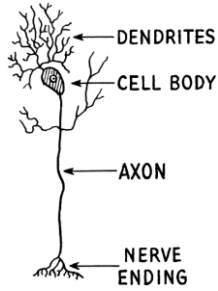




How can the items in these pictures harm the neurons in your brain?



Answer Key

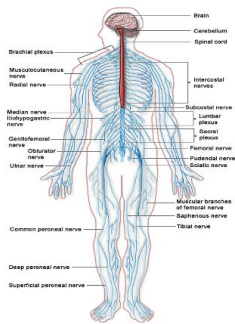
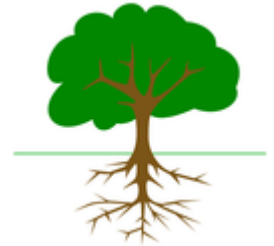


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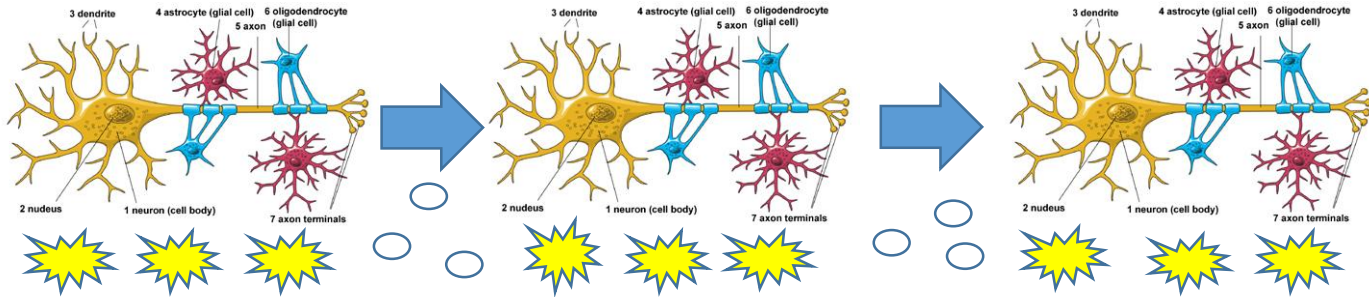
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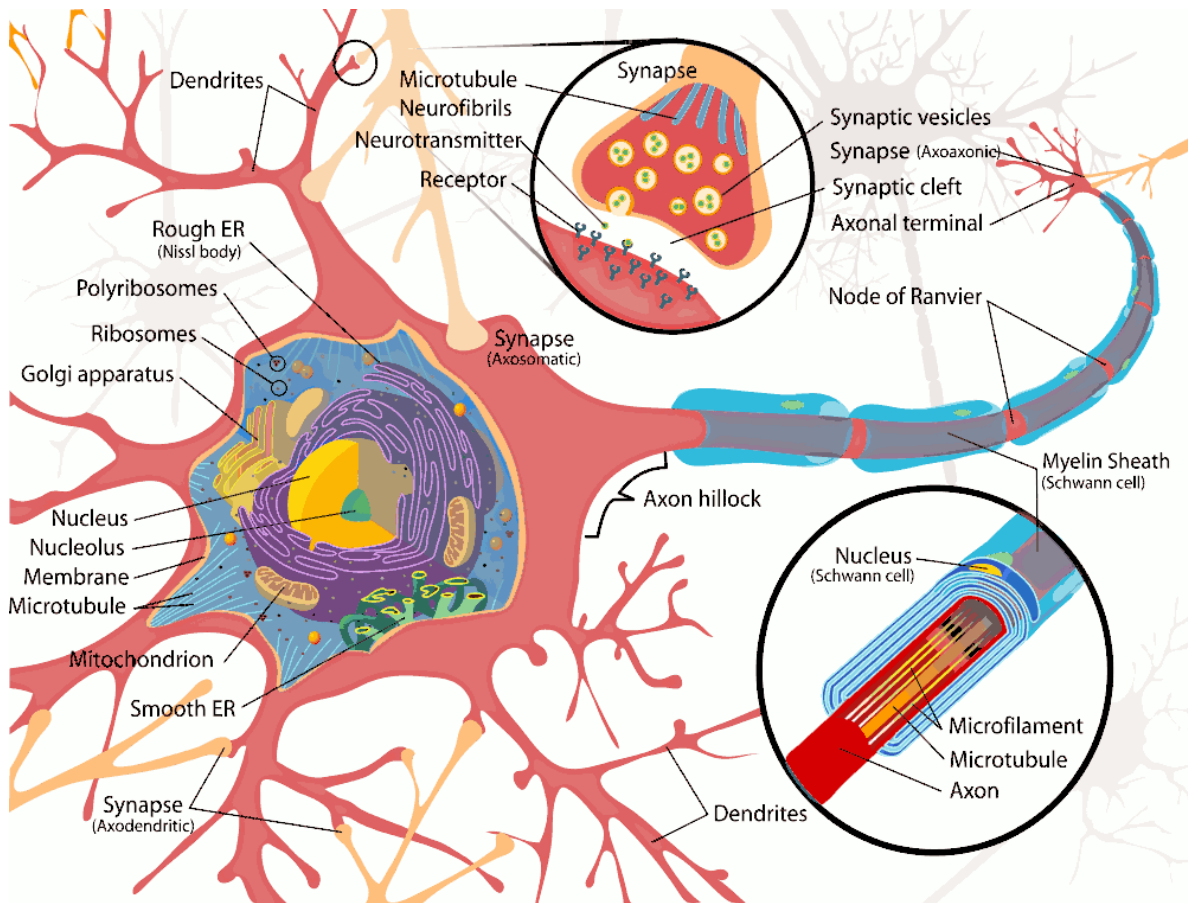
Hand touches stove → message is sent to **brain** → brain sends message through nerves to hand to remove it from heat.



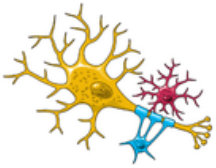
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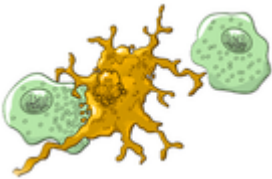
How can the items in these pictures protect and connect the neurons in your brain?



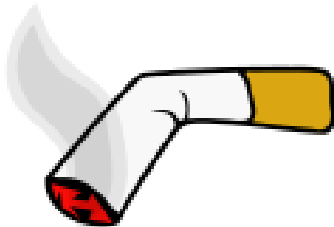
Helmets protect your brain from severe injury



Learning forms new connections and pathways



How can the items in these pictures harm the neurons in your brain?



Smoking or doing other drugs destroys neurons



Alcohol destroys neurons