



## Central Nervous System

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# 2010

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- 13 Signals are transmitted from one neuron to the next neuron, by molecules. These statements are about this process:
- 1 Transmitter molecules are formed in the receptors.
  - 2 The signal is transmitted across the synapse by osmosis.
  - 3 Transmitter molecules are released once the signal has been transmitted across the synapse.
  - 4 The release of transmitter molecules is triggered by an impulse.
  - 5 The signal is transmitted across the synapse by diffusion.

Which of the above statements are correct?

- A 1 and 2
- B 1 and 3
- C 1 and 5
- D 2 and 4
- E 3 and 4
- F 4 and 5



## Central Nervous System

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# 2012

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- 9 In one type of neurological disease, neurons are unable to detect a certain stimulus which would normally cause pain. In a patient with this disease, which of the following would be true?
- 1 The patient would not show a reflex action to the stimulus.
  - 2 The patient would be able to take appropriate action if they could also see the application of the stimulus.
  - 3 The patient would be able to sense pain but would not be able to respond to it.
  - 4 The patient would be able to sense pain but would not be able to communicate this to the brain.
- A 1 and 2 only
- B 1 and 3 only
- C 1 and 4 only
- D all of the statements



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 2013
 

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- 9 In a reflex action in which a person touches a hot plate and pulls their arm away, neurons of different lengths are involved. Which answer identifies the relative lengths of the neurons?

	Length of neuron		
	Longest	Medium	Shortest
<b>A</b>	sensory	relay	motor
<b>B</b>	motor	sensory	relay
<b>C</b>	relay	motor	sensory
<b>D</b>	motor	relay	sensory
<b>E</b>	relay	sensory	motor
<b>F</b>	sensory	motor	relay



## Central Nervous System

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# 2015

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- 1 Which one of the following is **not** part of a reflex to the stimulus of placing your hand on a hot object?
- A Sensory neuron transmits electrical impulse to the central nervous system.
  - B Muscle cells contract.
  - C Motor neuron transmits electrical impulse to muscle cells.
  - D Relay neurons pass electrical impulse from sensory to motor neurons.
  - E Brain transmits electrical impulse to relay neuron.