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**Question**

**Discuss the somatosensory pathways**

**Somatosensory Pathways**

Each sensory pathway is constituted by two or three groups of neurons:

**1) First order neurons**

**2) Second order neurons**

**3) Third order neurons.**

**First Order Neurons**: First order neurons receive sensory impulses from the receptors and send them to sensory neurons present in the posterior gray horn of spinal cord through their fibers. Nerve cell bodies of these neurons are located in the posterior nerve root ganglion.

**Second Order Neurons**: Second order neurons are the sensory neurons present in the posterior gray horn. Fibers from these neurons form the ascending tracts of spinal cord. These fibers carry sensory impulses from spinal cord to different brain areas below cerebral cortex (subcortical areas) such as thalamus. All the ascending tracts are formed by fibers of second order neurons of the sensory pathways except the ascending tracts in the posterior white funiculus, which are formed by the fibers of first order neuron

**Third Order Neurons**: Third order neurons are in the subcortical areas. Fibers of these neurons carry the sensory impulses from subcortical areas to cerebral cortex