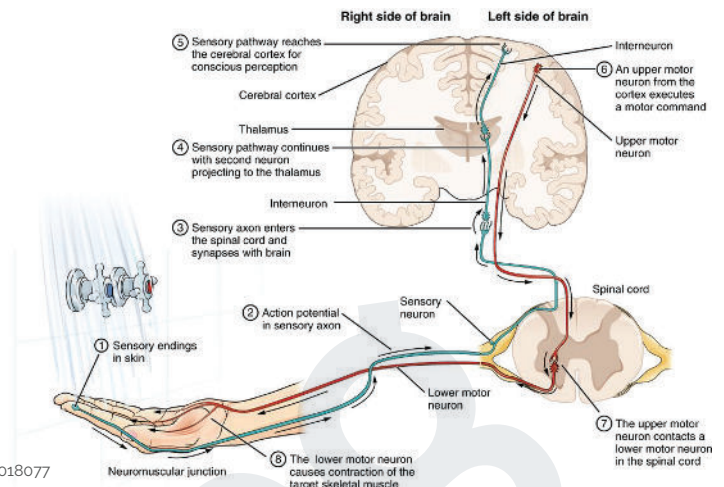


SENSORY RECEPTORS

Sensory Receptors

Receptors detect specific kinds of stimuli, create action potentials, and send signals to the brain. The brain then responds by sending motor signals back out. This is called a "Reflex Pathway".

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Exteroreceptors

Respond to stimuli from external environment

Sense	Cells	Location
Vision	Photoreceptors (rods & cones)	Retina
Auditory	Hair cells in the Organ of Corti	Cochlea
Taste	Ion Channels (salty & sour) G-Protein Coupled Receptor (sweet, bitter & umami)	Tongue
Smell	Olfactory receptors	Olfactory epithelium (nose)
Cutaneous	<i>Tactile (light touch)</i> Meissner's corpuscles Ruffini's corpuscles Krause end bulbs Merkel's discs Free nerve endings in hair follicles <i>Deep Pressure Receptors</i> Pacinian corpuscles (subcutaneous tissue) <i>Temperature</i> Thermoreceptors	Skin
Pain	Pain Nociceptors	<i>Somatic Pain</i> Superficial - skin, tongue Deep - muscles, tendons <i>Visceral</i> Deep internal body organs <i>Referred</i> Deep somatic or visceral

SENSORY RECEPTORS

Proprioceptors

Responds to changes in movement or position of the body or limbs

Sense	Cells	Location
Proprioception	Muscle spindles Golgi tendon organs	Inner ear Muscles Tendons Joints

Interoceptors

Respond to internal stimuli

Sense	Cells	Location
Changes in blood pressure	Baroreceptors	Right Atrium Aorta Superior & Inferior vena cavae Carotid Sinus
Changes in chemical composition of ECF or blood (such as oxygen, carbon dioxide or pH)	Chemoreceptors	<i>Blood Concentrations</i> Medulla Oblongata Internal carotid artery <i>Gastric Concentrations</i> Hypothalamus
Water content in blood	Osmoreceptors	Hypothalamus
Temperature	Thermoreceptors	Hypothalamus
Pain	Nociceptors	Hollow organs (due to overstretching)
Pulmonary Stretch	Mechanoreceptors	Lungs