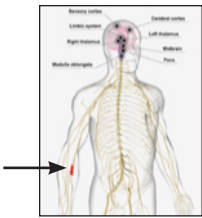
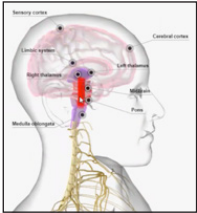
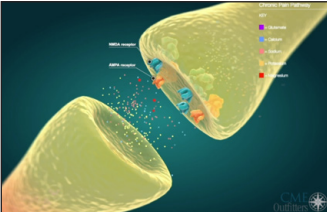
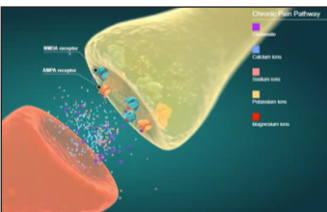
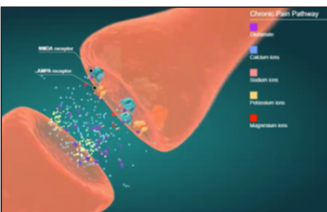


An Animated Look at Acute and Chronic Pain Pathways

# GUIDE FOR PAIN PATHWAYS ANIMATION

Visual	Guide
	<p><b>Begin 3D Animation</b></p> <ul style="list-style-type: none"> <li>In the first view, you will see the pain signal in red going up the arm, to the spinal cord and into the brain</li> </ul>
	<ul style="list-style-type: none"> <li>We will then zoom into the brain to see the signal travel up the spinal cord through the limbic system (orange) and into the sensory cortex (green). The changing colors highlight the areas and also show how the perception of pain is altered as the signal goes through.</li> </ul>
	<p><b>Click to Chapter 2: Acute Pain Pathway</b></p> <ul style="list-style-type: none"> <li>Here we see the red as the pain signal is received in the neuron.</li> <li>There is a release of glutamate from the vesicles that depolarizes the target nerve as the pain signal goes up.</li> </ul>
	<p><b>Click to Chapter 3: Chronic Pain Pathway</b></p> <ul style="list-style-type: none"> <li>With chronic pain, things start out the same way</li> <li>We have our glutamate release from the vesicles and our initial depolarization (the first neuron is still red).</li> <li>Additionally, potassium, sodium, calcium, and magnesium ions are released.</li> </ul>
	<ul style="list-style-type: none"> <li>There are now additional NMDA receptors creating a secondary depolarization creating a hypersensitive downstream neuron so the red pain signal remains.</li> </ul>