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Nursing

PHS 212

Pathway involved in taste:

 The tongue contains small bumps called papillae within or near which the Staste buds are situated. In the tongue’s taste buds, the taste receptors receive sensory input via two important mechanisms – depolarization and neurotransmitter release. Intake of salty foods leads more sodium ions to enter the receptor causing the said mechanisms. The same is true with intake of sour foods (hydrogen ions) and sweet foods (sugar molecules), both of which result to the closing of k+ channels upon entry. The taste buds present on the anterior 2/3rd of the tongue are innervated by the facial nerve, posterior 1/3rd by the glossopharyngeal and epiglottis by vagus nerve. From these cranial nerves, taste sensory input travels through the nerve fiber synapses to the solitary tract, the ventral posteromedial thalamic nuclei and the thalamus. In these three locations, there are clustered neurons which respond to taste (sour, sweet, salty or bitter). The thalamus relays the information to the primary gustatory cortex. The primary gustatory cortex is where the perception of a particular taste is processed.