SENSORY TRANSDUCTION

Vision (photons)

Hearing (mechanical via air compression)

Taste (chemical)

Smell (chemical)

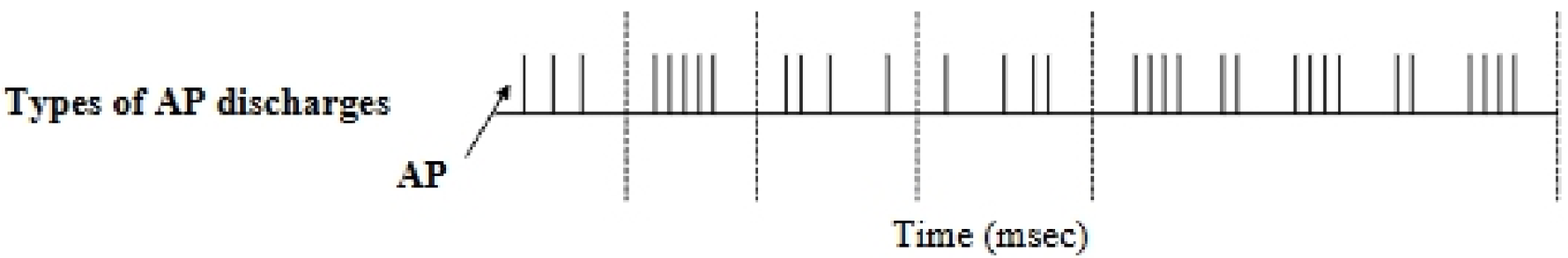
Touch-pressure (mechanical)

Proprioception (mechanical)

Pain-temperature (mechanical, thermal)

All stimuli are converted to receptor potentials (generator potentials (GP) that produce AP's.

Information(AP) received by the CNS is encoded by many features of the AP's: Frequency of firing, temporal patterns, periodicity, consistency



Basic Organization of Sensory Transduction

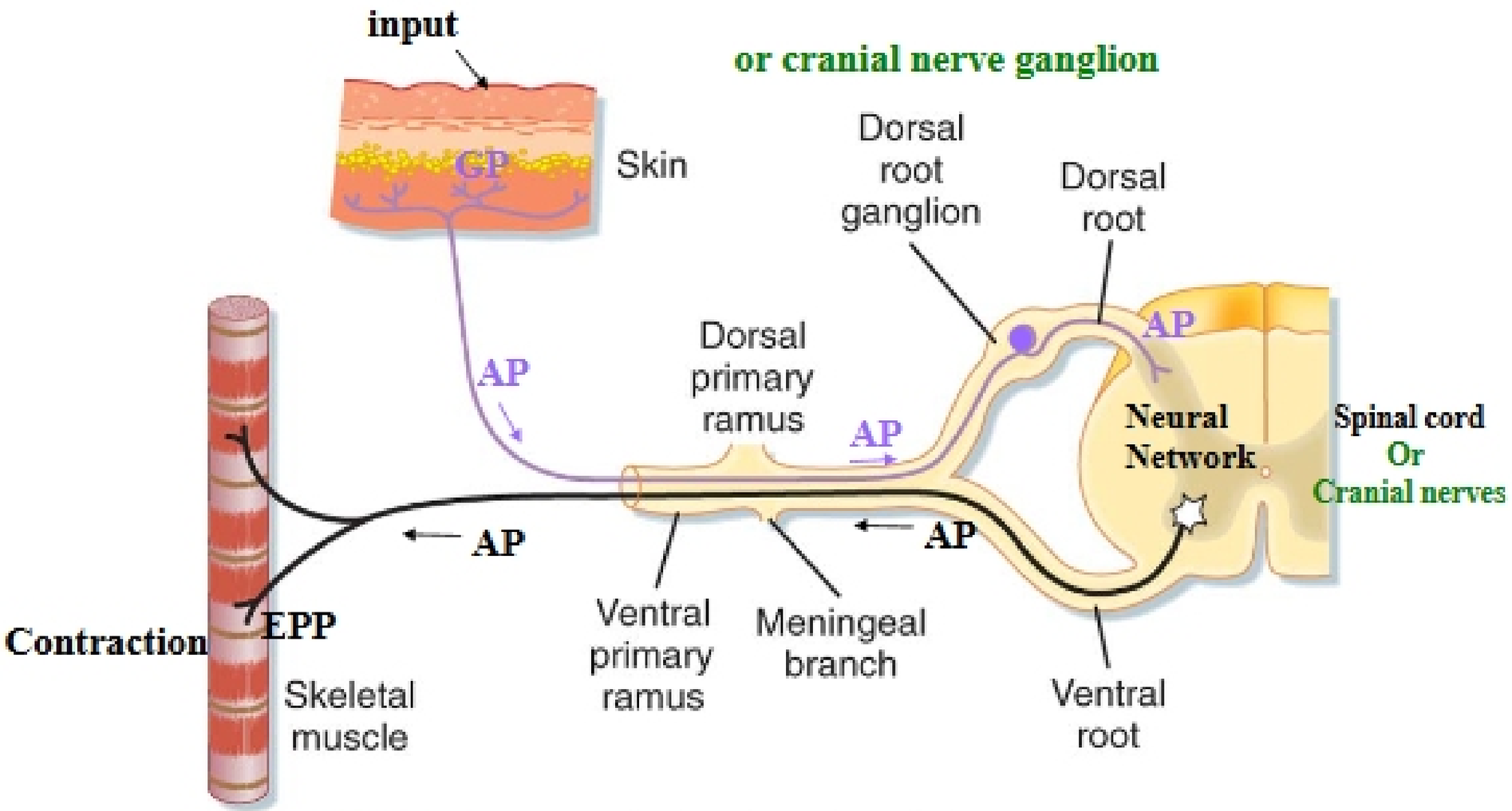
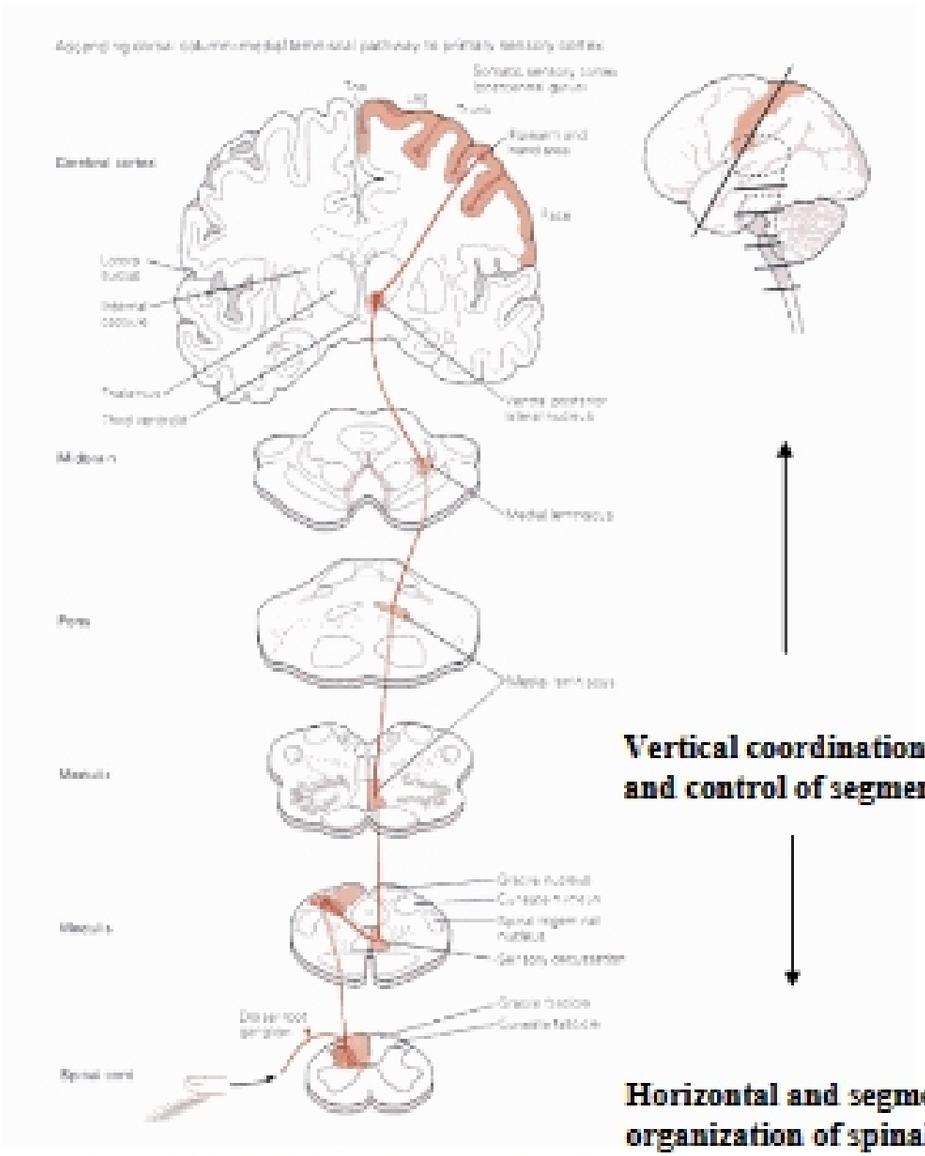
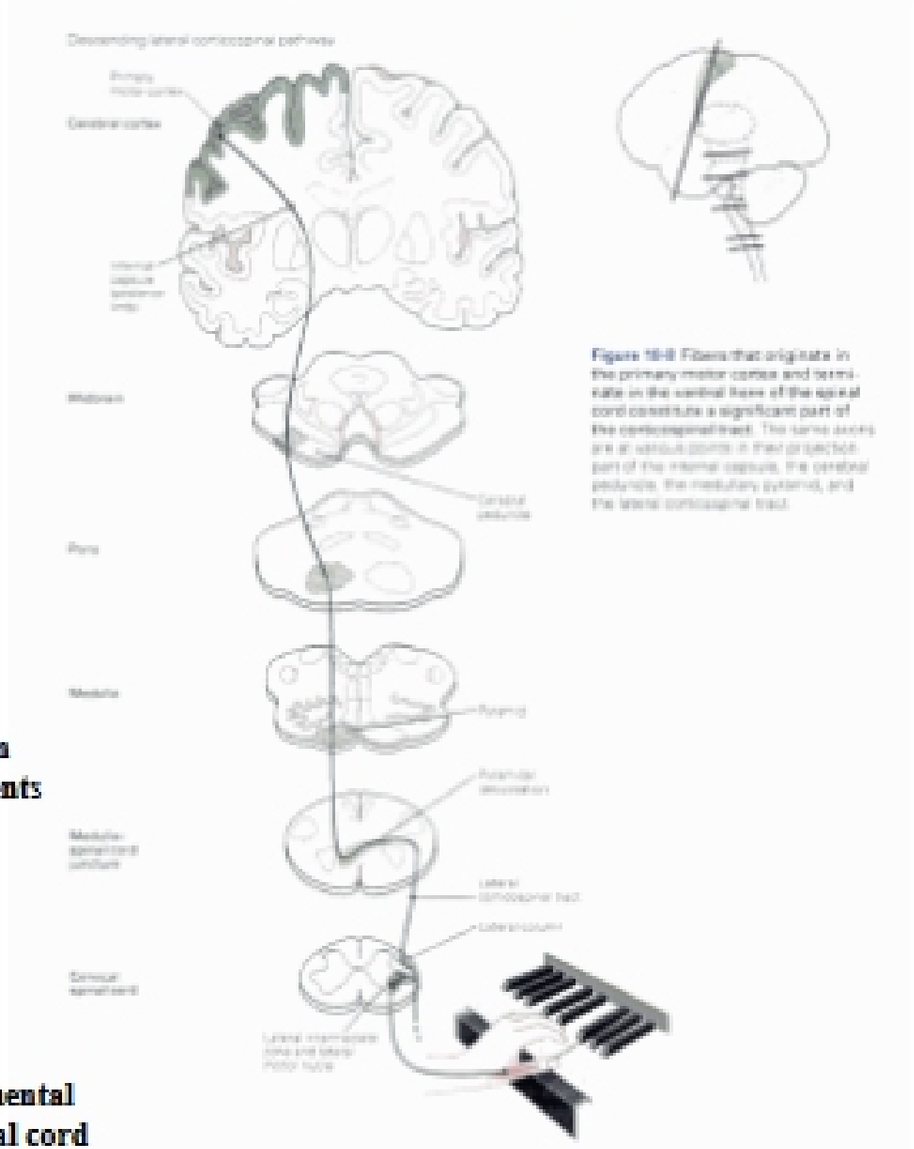


Fig. 4-8

Ascending Sensory Input to Cortex

Descending Motor Output to Muscle





Vertical coordination and control of segments

Horizontal and segmental organization of spinal cord

Principles of Neural Science: **p342** **p346**