

PTA/OTA 106
Cranial Nerve List

Number and Name	Type	Function
(I) Olfactory (Olfactory foramen)	Sensory	Smell / Nerves arise in olfactory mucosa and run through cribriform plate of ethmoid to synapse with bulb
(II) Optic (Optic foramen)	Sensory	Vision / Nerves arise in the retina of the eyes and passes back to the optic chiasma
(III) Oculomotor (Superior Orbital fissure)	Motor	Movement of eye / Inferior Oblique and Superior, Inferior, Medial Rectus muscles and Levator Palpebrae Superioris Motor / Pupillary constriction and Accommodation of the lens Sensory / Muscle Proprioception
(IV) Trochlear (Superior Orbital fissure)	motor	Motor / Superior Oblique muscle Sensory / Muscle Proprioception
(V) Trigeminal (Superior Orbital fissure)	Both	Ophthalmic branch / Sensory fibers that innervate the orbit cornea, and upper eyelid of the eye, skin of the nose and forehead and mucosa of Frontal, Sphenoid, and Ethmoid Paranasal Sinuses. (Pain, Temperature, Touch, and Proprioception) Maxillary Branch / Sensory fibers that innervate the lower eyelid, skin of the temple, upper cheek, and upper lip, mucous membranes of the palate, pharynx, upper gums and teeth. (Pain, Temperature, touch, and Proprioception) Mandibular Branch / Sensory fibers that innervate skin of the auricle temporal region, lower lip, external auditory meatus, and lower jaw, tympanic membrane, teeth and gum of lower jaw, and oral mucosa of the cheek, floor of the mouth, anterior 2/3 of the tongue. Motor / fibers innervate the muscles of mastication, swallowing, movement of the palate, auditory tube, tympanic membrane, and ear ossicles
(Foramen rotundum)		
(Foramen Ovale)		
(VI) Abducens (Superior Orbital fissure)	motor	Motor / Lateral Rectus Muscle Sensory / Muscle Proprioception

(VII) Facial (Internal Acoustic meatus)	Both	Sensory / Taste buds of the anterior 2/3 of the tongue and muscle proprioception of the face and scalp. Motor / innverates the muscle of facial expression, scalp, and neck, lacrimal, sublingual, submandibular, palatine, and nasal glands
(VIII) Vestibulocohear (Internal Acoustic meatus)	Sensory	Vestibular Branch / conveys impulses associated with both dynamic and static equilibrium from the semicircular ducts and the vestibule. Cochlear Branch / conveys impulses from the cochlea of the inner ear associated with hearing.
(IX) Glossopharyngeal (Julgular foraman)	Both	Sensory / taste buds of the posterior 1/3 of the tongue, touch, pressure, temperature, pain receptors of the tongue, the carotid sinus, and muscle proprioception of the muscles of swallowing. Motor / muscles of swallowing and the parotid salivary gland
(X) Vagus (Julgular foraman)	Both	Sensory / conveys visceral impulses about distention, pressure, and chemical conditions of organs, taste impulses from the throat and epiglottis, also muscle proprioception Motor / Muscles of airways, lungs, esophagus, heart, stomach, small and large intestine, gallbladder
(XI) Spinal Accessory (Julgular foraman)	motor	Motor / Voluntary muscles of the pharynx, larynx, and soft palate, Trapezius and Sternocleidomastoid
(XII) Hypoglossal (hypoglossal canal)	motor	Sensory / Muscle Proprioception Motor / Muscles of the tongue for speech and swallowing Sensory / Muscle Proprioception

**Spinal Nerves and Plexuses:
(31 pairs of spinal nerves and 4 plexuses)**

Spinal Nerves (Spinal nerves exit the vertebral column via intervertebral foramen)

Cervical 8 pairs

Plexus:
Cervical

Spinal Nerves
(C1 through C4)

Cervical plexus lays anteromedial to the Levator Scapulae and Middle Scalene muscles and deep to the SCM.

Nerve Point of the Neck: Place where the Cutaneous branches of the Cervical Plexus emerge along the middle portion of the posterior border of the SCM.

Nerves that arise from Cervical Plexus

Nerve

Phrenic Nerve

Innervation

Sole motor fibers to the diaphragm (Sympathetic)
Sensory fibers provide sensations to the central tendon, mediastinal pleura and the pericardium.

Lesser occipital nerve

Supply the skin of the neck and scalp posterior and superior to the ear.

Great Auricular nerve

Supply the skin over the parotid gland, posterior aspect of the ear, and skin extending from the angle of the mandible to the mastoid process

Transverse cervical nerve

Supply skin of the anterior cervical region

Suprascapular nerve

Passes laterally through the posterior triangle of the neck. Supplies the supraspinatus and infraspinatus muscles and the glenohumeral joint.