

# Cranial Nerves

- Cranial nerve responsible for motor function of intrinsic and extrinsic tongue muscles (except palatoglossus) – Hypoglossal nerve (CN XII)
- Muscle forming the bulk of the cheek – Buccinator
- Branch of mandibular nerve (V3) that supplies the mandibular teeth – Inferior alveolar nerve
- Muscle primarily responsible for protruding the mandible – Lateral pterygoid
- Cranial nerve responsible for smell – Olfactory nerve (CN I)
- Tissue that produces dentin – Odontoblasts
- Parasympathetic glands supplied by CN VII (give one) – Submandibular gland
- Nerve that carries general sensation from anterior 2/3 of tongue but NOT taste – Lingual nerve (V3)
- Salivary gland that secretes mostly mucous – Sublingual gland
- Hardest substance in the human body – Enamel
- Nerve affected if patient cannot close eyes tightly – Facial nerve (CN VII)
- Cranial nerve that moves the eye downward and inward (superior oblique) – Trochlear nerve (CN IV)
- Cranial nerve responsible for hearing and balance – Vestibulocochlear nerve (CN VIII)
- Cranial nerve that supplies taste in anterior 2/3 of tongue – Facial nerve (CN VII, via chorda tympani)
- Nerve that supplies muscles of mastication – Mandibular nerve (V3)
- Opening of nasolacrimal duct – Inferior meatus of nasal cavity
- Nerve responsible for parasympathetic control of abdominal organs – Vagus nerve (CN X)
- Muscle that closes the eyelids – Orbicularis oculi (CN VII)
- Stalk-like structure connecting cerebrum to spinal cord and cerebellum – Brainstem
- Epithelial lining of the maxillary sinus – Respiratory epithelium
- Nerve supplying the stylopharyngeus muscle – Glossopharyngeal nerve (CN IX)
- Largest salivary gland – Parotid gland
- Cranial nerve that originates from the pons – Trigeminal nerve (CN V)
- Muscle that elevates the mandible – Masseter / Temporalis / Medial pterygoid
- Structure separating the nasal cavity from the oral cavity – Hard palate / Soft palate
- Cranial nerve responsible for raising the eyelid – Oculomotor nerve (CN III)
- Eye closure affected if patient cannot close eyes tightly – Facial nerve (CN VII)
- Nerve involved if mandibular teeth lose sensation – Inferior alveolar nerve (V3)
- Type of epithelium lining the oral cavity – Stratified squamous epithelium (keratinized in some areas)
- Nerve that carries general sensation + taste from posterior 1/3 of tongue – Glossopharyngeal nerve (CN IX) (bonus for extra prep)
- Olfactory nerve (CN I)

Part/area: Olfactory epithelium of nasal cavity → olfactory bulb → smell sensation

- Optic nerve (CN II)

Part/area: Retina of eye → optic chiasm → vision

- Oculomotor nerve (CN III)

Part/area:

- Extraocular muscles: superior rectus, inferior rectus, medial rectus, inferior oblique
- Levator palpebrae superioris (opens eyelid)
- Parasympathetic to pupil (sphincter pupillae & ciliary muscle)

- Trochlear nerve (CN IV)

Part/area: Superior oblique muscle (moves eye down & inward)

- Trigeminal nerve (CN V) — 3 divisions

Ophthalmic (V1): forehead, scalp, cornea sensation

Maxillary (V2): midface, upper teeth, maxillary sinus

Mandibular (V3): lower teeth + muscles of mastication

- Abducens nerve (CN VI)

Part/area: Lateral rectus muscle (moves eye laterally)

- Facial nerve (CN VII)

Part/area:

- Muscles of facial expression
- Taste anterior 2/3 of tongue
- Lacrimal gland & salivary glands (submandibular, sublingual)

- Vestibulocochlear nerve (CN VIII)

Part/area:

- Cochlea → hearing
- Vestibular apparatus → balance
- Glossopharyngeal nerve (CN IX)

Part/area:

- Taste posterior 1/3 tongue
- Parotid gland secretion
- Pharynx sensation & swallowing (stylopharyngeus)
- Vagus nerve (CN X)

Part/area:

- Soft palate, pharynx, larynx (speech & swallowing)
- Parasympathetic to thoracic & abdominal organs
- Accessory nerve (CN XI)

Part/area: Sternocleidomastoid & trapezius muscles (head turn & shoulder shrug)  
Hypoglossal nerve (CN XII)

Part/area: Intrinsic & extrinsic tongue muscles (tongue movement)

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