

"Hypoglossal Nerve (Cranial Nerve XII)"

- Type: Motor nerve

- Muscle Supply:

- All intrinsic muscles of the tongue
- Extrinsic muscles: styloglossus, hyoglossus, genioglossus

"Hypoglossal Nucleus"

- Location: Near midline, beneath the floor of the lower fourth ventricle

» Nucleus Input:

- Receives corticonuclear fibers from both cerebral hemispheres
- Exception: Cells supplying genioglossus receive fibers only from the opposite hemisphere

» Hypoglossal Nerve Fiber Pathway

> Emergence in Medulla:

- Passes anteriorly through the medulla oblongata
- Emerges as rootlets in the groove between the pyramid and the olive

"Hypoglossal Nerve Course"

> Path in Skull:

- Emerges on the anterior surface of the medulla, exits skull via hypoglossal canal

> Descent in Neck:

- Runs between the internal carotid artery and internal jugular vein
- Reaches lower border of posterior belly of digastric muscle

• Turns forward, crossing:

- Internal and external carotid arteries
- Loop of the lingual artery

> Deep Path:

- Passes deep to posterior margin of mylohyoid, lying on lateral surface of hyoglossus muscle
- Sends branches to tongue muscles

» Association with Cervical Plexus

> C1 Fibers:

- Joins hypoglossal nerve in upper part of its course
- These cervical fibers later leave to supply neck muscles

» Functional Role

- Controls movement and shape of the tongue