

ANATOMY, DESCRIPTIVE AND SURGICAL.

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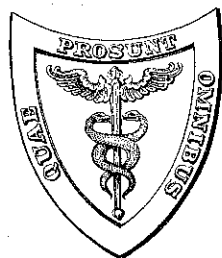
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The **meningeal branch** is a recurrent filament given off from the ganglion of the root in the jugular foramen. It passes backward, and is distributed to the dura mater covering the posterior fossa of the base of the skull.

The **auricular branch** (*Arnold's*) arises from the ganglion of the root, and is joined soon after its origin by a filament from the petrous ganglion of the glosso-pharyngeal; it passes outward behind the jugular vein, and enters a small canal on the outer wall of the jugular fossa. Traversing the substance of the temporal bone, it crosses the aqueductus Fallopii about two lines above its termination at the stylo-mastoid foramen; here it gives off an ascending branch, which joins the facial: the continuation of the nerve reaches the surface by passing through the auricular fissure between the mastoid process and the external auditory meatus, and divides into two branches, one of which communicates with the posterior auricular nerve, while the other supplies the integument at the back part of the pinna and the posterior part of the external auditory meatus.

The **pharyngeal branch**, the principal motor nerve of the pharynx, arises from the upper part of the inferior ganglion of the pneumogastric. It consists principally of filaments from the accessory portion of the spinal accessory: it passes across the internal carotid artery to the upper border of the Middle constrictor, where it divides into numerous filaments which join with those from the glosso-pharyngeal, superior laryngeal (its external branch), and sympathetic, to form the pharyngeal plexus, from which branches are distributed to the muscles and mucous membrane of the pharynx and the muscles of the soft palate. From the pharyngeal plexus a minute filament is given off, which descends and joins the hypoglossal nerve as it winds round the occipital artery.

The **superior laryngeal** is the nerve of sensation to the larynx. It is larger than the preceding, and arises from the middle of the inferior ganglion of the pneumogastric. It consists principally of filaments from the accessory portion of the spinal accessory. In its course it receives a branch from the superior cervical ganglion of the sympathetic. It descends by the side of the pharynx behind the internal carotid, where it divides into two branches, the external and internal laryngeal.

The **external laryngeal branch**, the smaller, descends by the side of the larynx, beneath the Sterno-thyroid, to supply the Crico-thyroid muscle. It gives branches to the pharyngeal plexus and the Inferior constrictor, and communicates with the superior cardiac nerve, behind the common carotid.

The **internal laryngeal branch** descends to the opening in the thyro-hyoid membrane, through which it passes with the superior laryngeal artery, and is distributed to the mucous membrane of the larynx. A small branch communicates with the recurrent laryngeal nerve. The branches to the mucous membrane are distributed, some in front to the epiglottis, the base of the tongue, and the epiglottidean glands; while others pass backward, in the aryteno-epiglottidean fold, to supply the mucous membrane surrounding the superior orifice of the larynx, as well as the membrane which lines the cavity of the larynx as low down as the vocal cord. The filament which joins with the recurrent laryngeal descends beneath the mucous membrane on the inner surface of the thyroid cartilage, where the two nerves become united.

The **inferior or recurrent laryngeal**, so called from its reflected course, is the motor nerve of the larynx. It arises on the right side, in front of the subclavian artery; winds from before backward round that vessel, and ascends obliquely to the side of the trachea, behind the common carotid and behind or in front of the inferior thyroid artery. On the left side it arises in front of the arch of the aorta, and winds from before backward round the aorta at the point where the remains of the ductus arteriosus are connected with it, and then ascends to the side of the trachea. The nerves on both sides ascend in the groove between the trachea and oesophagus, and, passing under the lower border of the Inferior constrictor muscle, enter the larynx behind the articulation of the inferior cornu of the thyroid cartilage with the cricoid, being distributed to all the muscles of the larynx except the Crico-thyroid. It communicates with the superior laryngeal