

# Recurrent laryngeal nerve

see [Recurrent laryngeal nerve palsy](#).

The recurrent laryngeal nerve (RLN) branches off the [vagus nerve](#) (cranial nerve X) and has an indirect course through the neck. It supplies innervation to all of the intrinsic muscles of the [larynx](#), except for the cricothyroid muscles, as well as sensation to the larynx below the level of the vocal cords

The midportion of the [recurrent laryngeal nerve](#) and the external branch of the [superior laryngeal nerve](#) are encountered in the anterior approach to the lower [cervical spine](#). The recurrent laryngeal nerve is vulnerable to [injury](#) on the right side, especially if ligation of inferior thyroid vessels is performed without paying sufficient attention to the course and position of the nerve, and the external branch of the superior laryngeal nerve is vulnerable to injury during ligation and division of the [superior thyroid artery](#). Avoiding injury to the recurrent laryngeal nerve (especially on the right side) and superior laryngeal nerve is a major consideration in the anterior approach to the lower cervical spine. The sympathetic trunk is situated in close proximity to the medial border of the longus colli at the C6 level (the longus colli diverge laterally, whereas the sympathetic trunk converges medially). The damage leads to the development of Horner's syndrome with its associated ptosis, meiosis, and anhidrosis. Awareness of the regional anatomy of the sympathetic trunk may help in identifying and preserving this important structure while performing anterior cervical surgery or during exposure of the transverse foramen or uncovertebral joint at the lower cervical levels. Finally, the spinal [accessory nerve](#) (embedded in fibroadipose tissue in the posterior triangle of the neck) is prone to injury. Its damage will result in an obvious shoulder droop, loss of shoulder elevation, and pain. Prevention of inadvertant injury to the accessory nerve is critical in the neck dissection <sup>1)</sup>.

<sup>1)</sup>

Lu J, Ebraheim NA, Nadim Y, Huntoon M. Anterior approach to the cervical spine: surgical anatomy. Orthopedics. 2000 Aug;23(8):841-5. Review. PubMed PMID: 10952048.

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