

The **superior cervical ganglion** is the largest of the cervical ganglia and consists of the fused ganglia of C1 to C4. It is situated at the level of the second and third cervical vertebrae, anterior to the longus capitis muscle and posterior to the internal carotid artery and its carotid sheath. It is connected to the middle cervical ganglion inferiorly by the sympathetic trunk. It gives rise to lateral, medial and anterior branches.

The medial branches of the superior cervical ganglion consist of laryngopharyngeal and cardiac branches. The laryngopharyngeal branches supply the carotid body and travel to the side of the pharynx, to form the pharyngeal plexus with the glossopharyngeal (IX cranial nerve) and the vagal rami (X cranial nerve). The cardiac branch, which is thought to contain only efferent fibers, originates from branches from the inferior part of the superior cervical ganglion and is sometimes joined by a branch, from the sympathetic trunk between the superior and middle cervical ganglia. It passes down posterior to the common carotid artery, anterior to longus colli and traverses the inferior thyroid artery and recurrent laryngeal nerve. The cardiac branches from the right and left sides pass along differing courses at this point.

The right cardiac branch joins the deep part of the cardiac plexus at the back of the aortic arch by passing behind (or occasionally in front) of the subclavian artery and brachiocephalic trunk. At mid-neck level it receives branches from the external laryngeal nerve, inferiorly it receives one or two vagal cardiac branches and on entering the thorax it receives a branch from the recurrent laryngeal nerve. It also sends communicating branches to the thyroid branches of the middle cervical ganglion.

The left cardiac branch joins the superficial part of the cardiac plexus anterior to the left common carotid artery. It crosses the left aspect of the aortic arch to reach the ventral part of the cardiac plexus, and occasionally it passes to the right of the aorta to reach the deep part of the cardiac plexus. It connects with the middle cervical and cervicothoracic sympathetic ganglia through cardiac branches. It sometimes connects with the inferior cervical cardiac branches of the left vagus nerve (X cranial nerve), a plexus forms on the ascending aorta from the branches of these nerves.