

The first thoracic ventral spinal rami exit the vertebral column through the intervertebral foramina between the pedicles of T1 and T2. They emerge above the transverse processes of T2 and pass into the intercostal spaces between the pleura and internal intercostal membrane (fascia) where each ramus receives at least one grey (proximal) and white (distal) rami communicantes from adjacent sympathetic ganglia.

Each rami divides into unequal branches; the larger branches cross the neck of the first rib lateral to the superior intercostal arteries to emerge between scalenus anterior and scalenus medius. They join with the ventral rami of C8 to form the lower trunks of the brachial plexus. The smaller branches (intercostal nerve) run in the first intercostal spaces below the intercostal vessels and terminate as the first anterior cutaneous nerves of the thorax. Along their course, in the intercostal space, they give rise to lateral cutaneous branches, which pierce the chest wall anterior to serratus anterior to supply axillary skin. The first and second intercostal nerves often communicate across the neck of the second rib.

Supply

The larger branches, via the brachial plexus, supply muscles and skin of the upper limb. The smaller branches supply the first intercostal muscles, skin on the anterior surface of the upper part of the thorax and axillary skin.