

The First Thoracic Nerve.—The anterior division of the first thoracic nerve divides into two branches: one, the larger, leaves the thorax in front of the neck of the first rib, and enters the brachial plexus; the other and smaller branch, the **first intercostal nerve**, runs along the first intercostal space, and ends on the front of the chest as the first anterior cutaneous branch of the thorax. Occasionally this anterior cutaneous branch is wanting. The first intercostal nerve as a rule gives off no lateral cutaneous branch; but sometimes it sends a small branch to communicate with the intercostobrachial. From the second thoracic nerve it frequently receives a connecting twig, which ascends over the neck of the second rib.

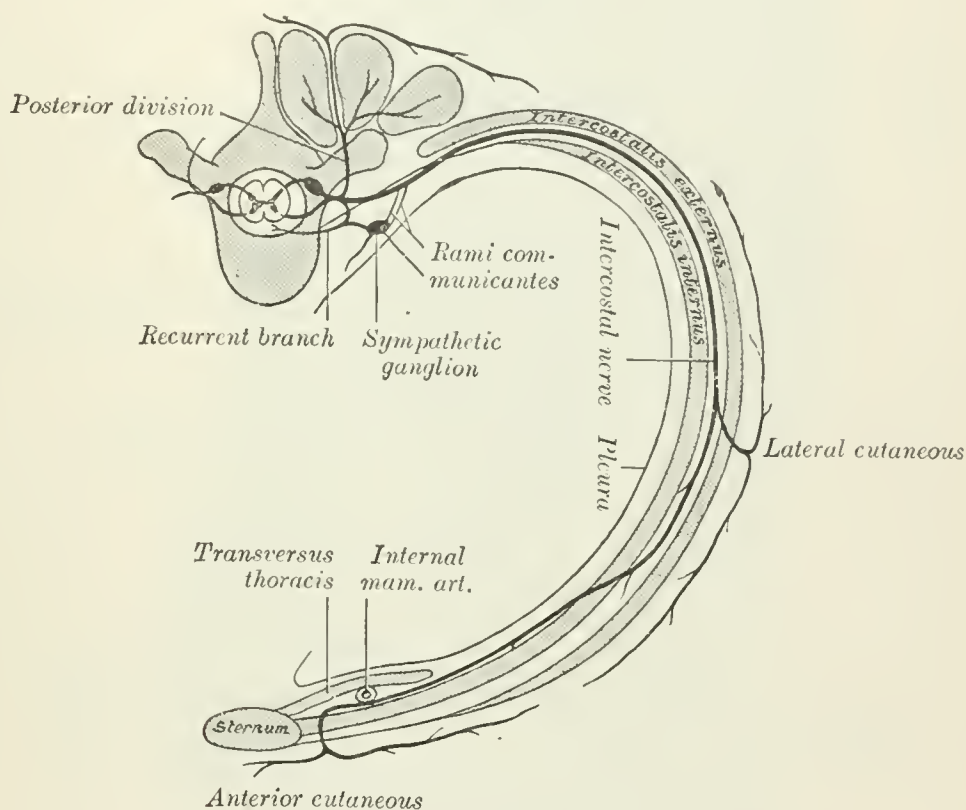


FIG. 819.—Diagram of the course and branches of a typical intercostal nerve.

The Upper Thoracic Nerves (*nn. intercostales*).—The anterior divisions of the second, third, fourth, fifth, and sixth thoracic nerves, and the small branch from the first thoracic, are confined to the parietes of the thorax, and are named **thoracic intercostal nerves**. They pass forward (Fig. 819) in the intercostal spaces below the intercostal vessels. At the back of the chest they lie between the pleura and the posterior intercostal membranes, but soon pierce the latter and run between the two planes of *Intercostales interni*, and, running amidst their fibers as far as the costal cartilages, they gain the inner surfaces of the muscles and lie between them and the pleura. Near the sternum, they cross in front of the internal mammary artery and *Transversus thoracis* muscle, pierce the *Intercostales interni*, the anterior intercostal membranes, and *Pectoralis major*, and supply the integument of the front of the thorax and over the mamma, forming the anterior cutaneous branches of the thorax; the branch from the second nerve unites with the anterior supraclavicular nerves of the cervical plexus.

Branches.—Numerous slender muscular filaments supply the *Intercostales*, the *Subcostales*, the *Levatores costarum*, the *Serratus posterior superior*, and the *Transversus thoracis*. At the front of the thorax some of these branches cross the costal cartilages from one intercostal space to another.

Lateral cutaneous branches (*rami cutanei laterales*) are derived from the intercostal nerves, about midway between the *vertebræ* and sternum; they pierce the Inter-