The superior intercostal artery arises as one of the branches of the costocervical trunk. It descends postero-medially between the pleura and the necks of the first and second ribs, medial to the ventral branch of the first thoracic spinal nerve and lateral to the inferior cervical (or cervicothoracic) sympathetic ganglion. During its course, the superior intercostal artery gives rise to the first and second intercostal arteries, which supply the upper two intercostal spaces in a similar way as the lower intercostal arteries. At the level of the third intercostal space, the superior intercostal artery anastomoses with the third intercostal artery.