Cervical vertebrae possess transverse foramina to allow for the vertebral arteries to pass through on their way to the foramen magnum to end in the circle of Willis. These are the smallest, lightest vertebrae and the vertebral foramina are triangular in shape. The spinous processes are short and often bifurcated (the spinous process of C7, however, is not bifurcated, and is substantially longer than that of the other cervical spinous processes).

The atlas differs from the other vertebrae in that it has no body and no spinous process. It has instead a ring-like form, having an anterior and a posterior arch and two lateral masses. At the outside centre points of both arches there is a tubercle; an anterior tubercle and a posterior tubercle for the attachment of muscles. The front surface of the anterior arch is convex and its anterior tubercle gives attachment to the longus colli muscle. The posterior tubercle is a rudimentary spinous process and gives attachment to the rectus capitis posterior minor muscle. The spinous process is small so as not to interfere with the movement between the atlas and the skull. On the under surface is a facet for articulation with the dens of the axis.

Specific to the cervical vertebra is the transverse foramen (also known as foramen transversarium). This is an opening on each of the transverse processes which gives passage to the vertebral artery and vein and a sympathetic nerve plexus. On the cervical vertebrae other than the atlas, the anterior and posterior tubercles are on either side of the transverse foramen on each transverse process. The anterior tubercle on the sixth cervical vertebra is called the carotid tubercle because it separates the carotid artery from the vertebral artery.