The third cervical vertebra (C3) is a typical cervical vertebra that has a small and broad body, and large and triangular vertebral foramen. The large vertebral foramen is bound by the vertebral body anteriorly, pedicles laterally and laminae postero-laterally. It contains the spinal cord surrounded by the meninges and associated vessels.

The anterior surface of the body is convex and has a downward projecting lip to which the anterior longitudinal ligament attaches. The posterior surface is concave and the superior surface is saddle-shaped with lateral elevations known as the uncinate processes which articulate with reciprocal articular facets located on the inferior (concave) surface of the vertebra above. These articulations are known as the 'uncovertebral joints' or 'joints of Luschka'.

The pedicles project postero-laterally and are notched on their superior and inferior surfaces by the superior and inferior vertebral notches, respectively; they contribute to the formation of the boundaries of the intervertebral foramina. The thin curved laminae project postero-medially and have thinner superior and thicker inferior borders. From the junction of the laminae projects a short bifid spinous process. The transverse processes end laterally in anterior and prominent posterior tubercles joined by a thin costotransverse bar. Within each transverse process is a foramen transversarium, which is an opening that transmits the vertebral vein, vertebral artery (Slide 1 and Slide 2) and associated sympathetic plexus. At the junctions of the pedicles and laminae project large superior and inferior articular processes, on which are the slightly convex superior and slightly concave inferior articular facets. The superior articular facets face postero-superiorly and the inferior articular facets antero-inferiorly.

The superior and inferior articular processes from C2 (inferior articular process) to C7 form the articular pillar of the cervical spine. It is palpable 2-3cm from the cervical spinous processes.

Ossification
Primary ossification centers appear in each half of the vertebral arch and the centrum in the seventh week and fourth month in-utero, respectively. The arches unite during the first year and then join with the vertebral body by the third year. Secondary ossification centers appear at puberty at the apices of the transverse and spinous processes and the annular epiphyseal rings on the superior and inferior surfaces of the vertebral body; they fuse with the rest of the vertebra by 25 years. In bifid cervical spinous processes there may be two secondary ossification centers.