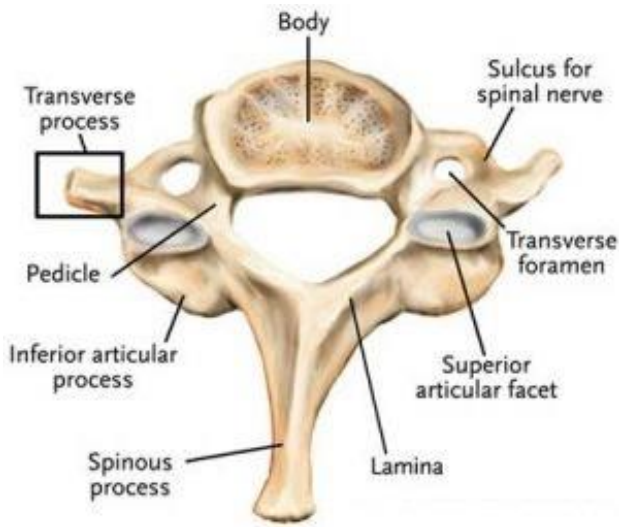
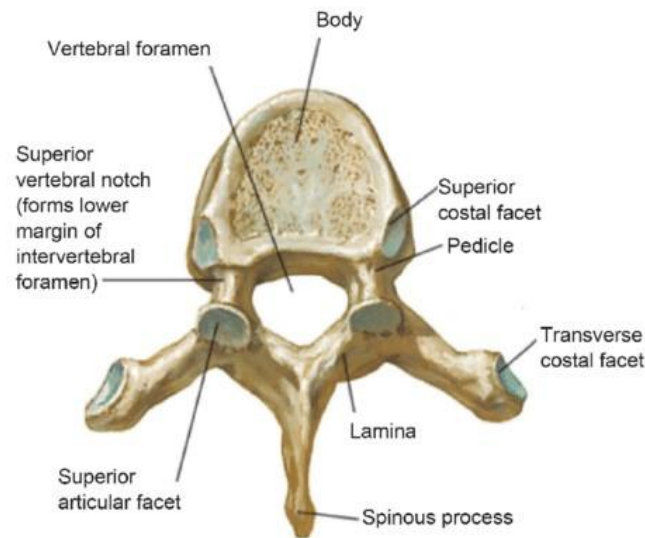


Classification of Vertebrae



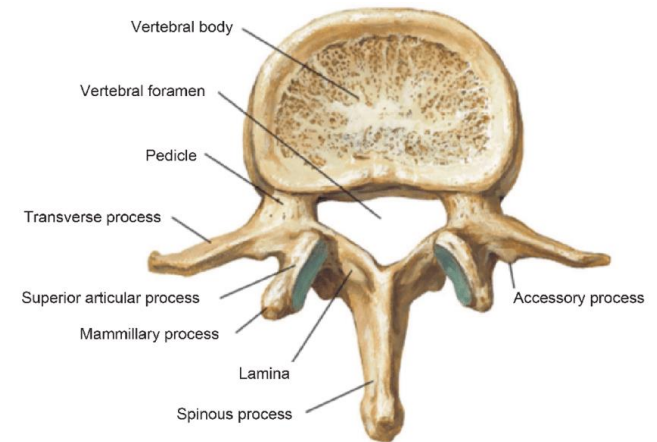
Superior view of cervical vertebra.

Although the presacral vertebrae share many characteristics, some structures may only be found on certain types of vertebrae. Thus, one may categorize a given cervical, thoracic or lumbar vertebra by the presence or absence of certain features. For example, the presence of transverse foramina on the vertebra above indicates it is a cervical vertebra, as only cervical vertebrae possess transverse foramina for the passage of the vertebral arteries and veins.



Superior view of thoracic vertebra.

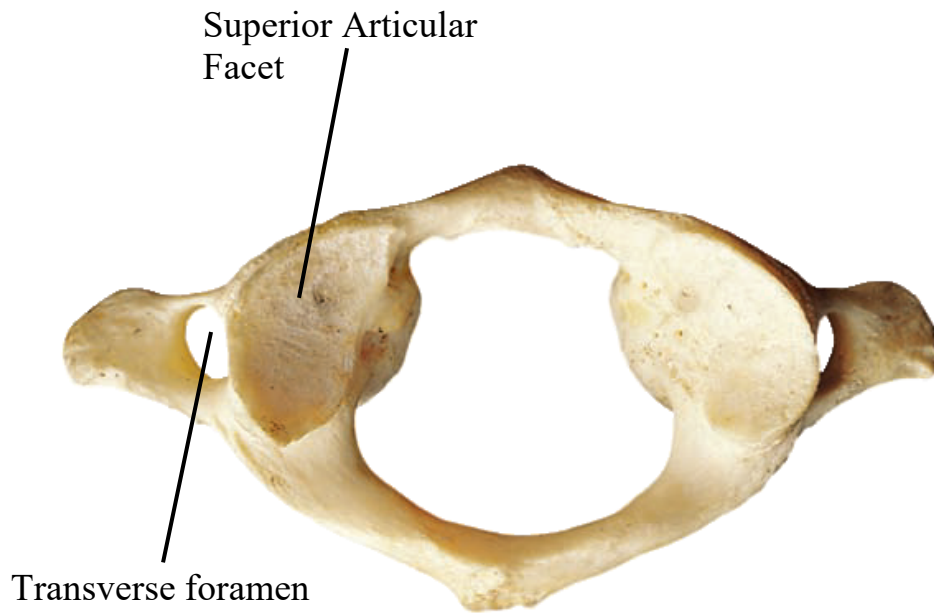
Thoracic vertebrae lack transverse foramina, and have superior and inferior costal facets for the attachment of ribs. They also have transverse costal facets which articulate with the tubercle of the rib. It may be helpful to know that thoracic vertebrae are larger than cervical vertebrae, and many of them look like the head of a giraffe when viewed from the posterior aspect.



Superior view of lumbar vertebra.

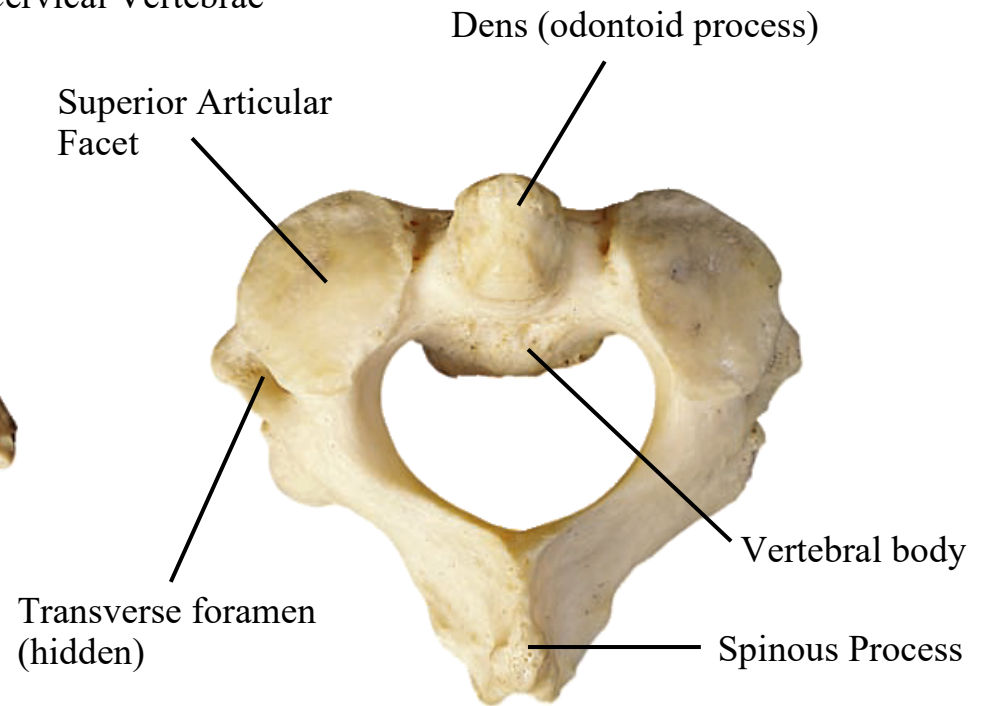
Lumbar vertebrae are larger than thoracic vertebrae and lack the derived features of cervical and lumbar vertebrae. They have no transverse foramina, transverse costal facets or superior/inferior costal facets. When viewing most lumbar vertebrae from the posterior side, they resemble the head of a moose. When using the “giraffe or moose” method, be cautious, because a thoracic vertebra that is the last of its group will look somewhat more like a lumbar vertebra (moose), and a lumbar vertebra that is the first in its group will look somewhat more like a thoracic vertebra (giraffe).

Special Cervical Vertebrae



Superior view of atlas

Like all cervical vertebrae, the atlas (C1) possesses transverse foramina. However, the atlas may be identified by its large superior articular facets, which articulate with the occipital condyles to form the atlanto-occipital joint, permitting flexion and extension (nodding). Named for the greek god Atlas who was believed to carry the world on his shoulders, the atlas supports the weight of the skull. One may also note the absence of a vertebral body and spinous process, which is unique to the atlas.



Superior view of axis

As it is a cervical vertebra, the axis (C2) possesses transverse foramina. However, unlike any other vertebra, it has a post-like structure called the dens which articulates with the atlas to form the atlanto-axial joint, which allows for rotation of the head. Note that the vertebral body and spinous process are present. It is easy to remember that these features will be present if one knows that the pre-sacral vertebrae increase in size as they go down the vertebral column.