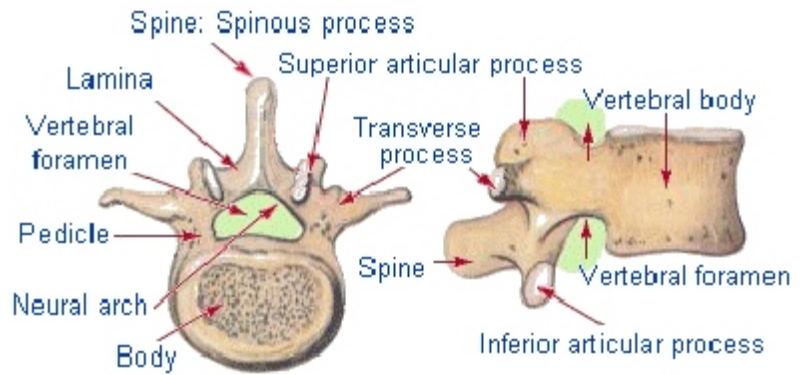


# AXIAL SKELETON, VERTEBRAL COLUMN, THORAX

11/3/81, 11/9/82, 30 Oct 00, 22 Oct 03, 3 Nov 03, 25 Oct 04, 24 Oct 05, 24 Oct 07, 27 Oct 08, 26 Oct 09  
 Skeletal System: Axial II, S&M p138, Martini 6<sup>th</sup>: 228-239, 7<sup>th</sup>: 224-234, 8<sup>th</sup>: 231-242

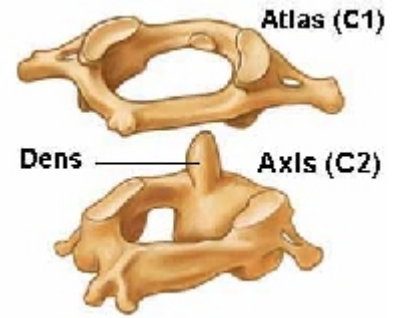
## General characteristics of vertebra: (p 233):

centrum (body)	lamina
neural (vertebral) arch	sup & inf articular process and facets
vertebral foramen	transverse process
pedicle	vertebral notches (form intervertebral foramina for spinal nerves)
spinous process	



## VERTEBRAL COLUMN (table on p 236, diagrams on 235, 237, 238.)

<b>7 cervical</b>	neck bones, delicate, have transverse foramina and bifurcated spinous processes
<b>12 thoracic</b>	have demifacets: articular surfaces for ribs, centra (all) and transverse costal facet on transverse processes (except 11th & 12th)
<b>5 lumbar</b>	heavy centra, short blunt spinous processes,
<b>5 sacral</b>	fused
<b>4 coccygeal</b>	fused



C <sub>1</sub> p. 227	<b>atlas:</b>	articular surface for dens, transverse ligament, allows nodding "yes"
C <sub>2</sub>	<b>axis:</b>	possesses dens, allows shaking head "no."
C <sub>7</sub>	<b>vertebra prominens,</b>	good landmark at base of neck.

## Sacrum, formed by five fused vertebra at puberty (p 239)

features	description
Ala	superior medial surface for articulation of os coxa
auricular surface	hole at inferior end
hiatus	at superior point ventral
sacral promontory	continuation of spine
median sacral crest	



**Coccyx** (cuckoo) tail bone, three-five vertebrae, begin fusing by age 26, may totally fuse in the aged.

**cornua** formed by lamina of first coccygeal vertebra

**Thorax:** sternum, ribs, costal cartilage.

<b>Ribs:</b> 12 pairs:	7 pairs	<b>vertebrosternal</b> (true)	possess own direct cartilage to sternum
	3 pairs	<b>vertebrochondral</b> (false)	share a connection to sternum
	2 pairs	<b>vertebral</b> or <b>floating ribs</b>	are not connected to sternum

## rib features: (241)

<b>head of rib</b>	articulates with two demifacets of adjacent vertebrae except 1, 10, 11 and 12 which rest on single vert facet
<b>tubercle</b>	articulates with transverse process of thoracic vertebrae.
<b>costal cartilage:</b>	hyaline cartilage, anchor ribs, provide flexibility

<b>Sternum</b> (breast) P 240	<b>manubrium</b> (handle)	articulates: medial end of clavicle and 1st and 2nd costal cart.
	<b>gladiolus</b> (sword)	articulates with costal cartilages: 2nd thru 7th
	<b>xiphoid</b> (sword)	attachment with ligament muscle (rectus abdominis) and linea alba (midline of abdomen)