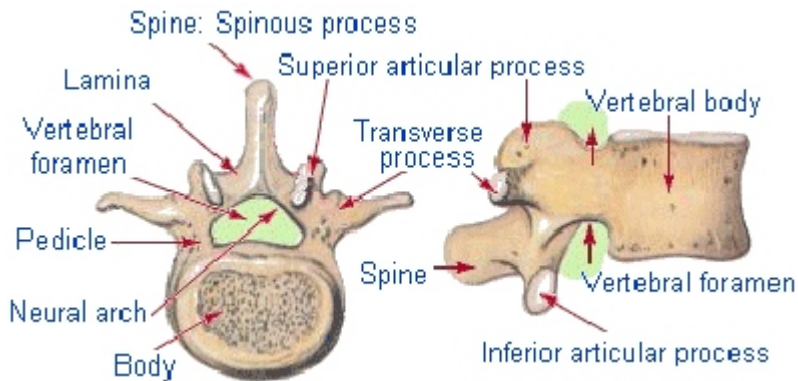


## VERTEBRAL COLUMN, THORAX

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, 25 Oct 10  
 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):

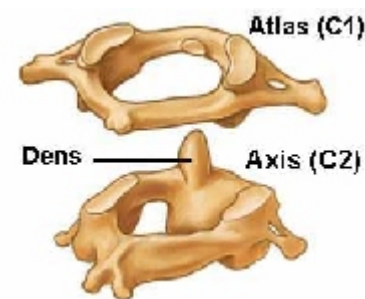
centrum (body)	lamina
neural (vertebral) arch	superior & inferior articular process and facets
vertebral foramen	transverse process
pedicle	vertebral notches (form intervertebral foramina for spinal nerves)
spinous process	



### VERTEBRAL COLUMN (table on p 236, diagrams on 231, 235, 237)

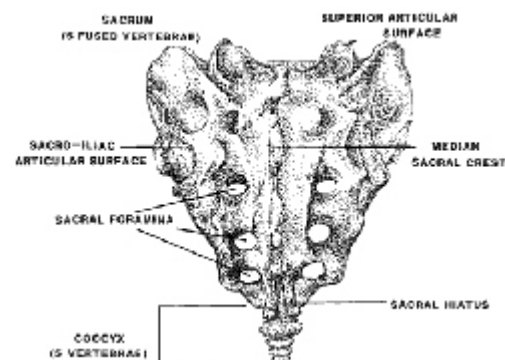
<b>7 cervical</b>	neck bones, delicate, have transverse foramina and bifurcated spinous processes
<b>12 thoracic</b>	have demifacets: articular surfaces for ribs, centra (all) and transverse costal facet on transverse processes (except 11th & 12th)
<b>5 lumbar</b>	heavy centra, short blunt spinous processes,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

C <sub>1</sub> p. 235	<b>atlas:</b>	articular surface for dens, transverse ligament, allows "yes" nod
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)

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



**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. (P 240)

#### Ribs: 12 pairs:

7 pairs of <b>vertebrosternal</b> (true)	possess own direct cartilage to sternum
3 pairs of <b>vertebrochondral</b> (false)	share a cartilage connection to sternum
2 pair of <b>vertebral</b> (floating)	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

### Sternum (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 via ligament to muscle (rectus abdominis) and linea alba (midline of abdomen)

