



# Bones of the Spine and Thorax

The **vertebral column** (or spine) consists of twenty-four vertebrae: seven **cervical** in the neck, twelve **thoracic** of the thorax and five **lumbar** in the lower back (4.6). The sacrum and coccyx are composed of fused vertebrae and are also considered part of the vertebral column. For the purposes of palpation and clarity, the sacrum and coccyx are included in Chapter Six, *Pelvis and Thigh*.

The **cervical vertebrae** are the most mobile and accessible of the twenty-four spinal bones. The twelve **thoracic vertebrae** articulate with the twelve pairs of ribs. Designed for minimal movement, they help to stabilize the thoracic area and protect the internal organs. In contrast, the larger, stockier **lumbar vertebrae**, located between the twelfth rib and posterior iliac crest, are designed to support the weight of the upper body.

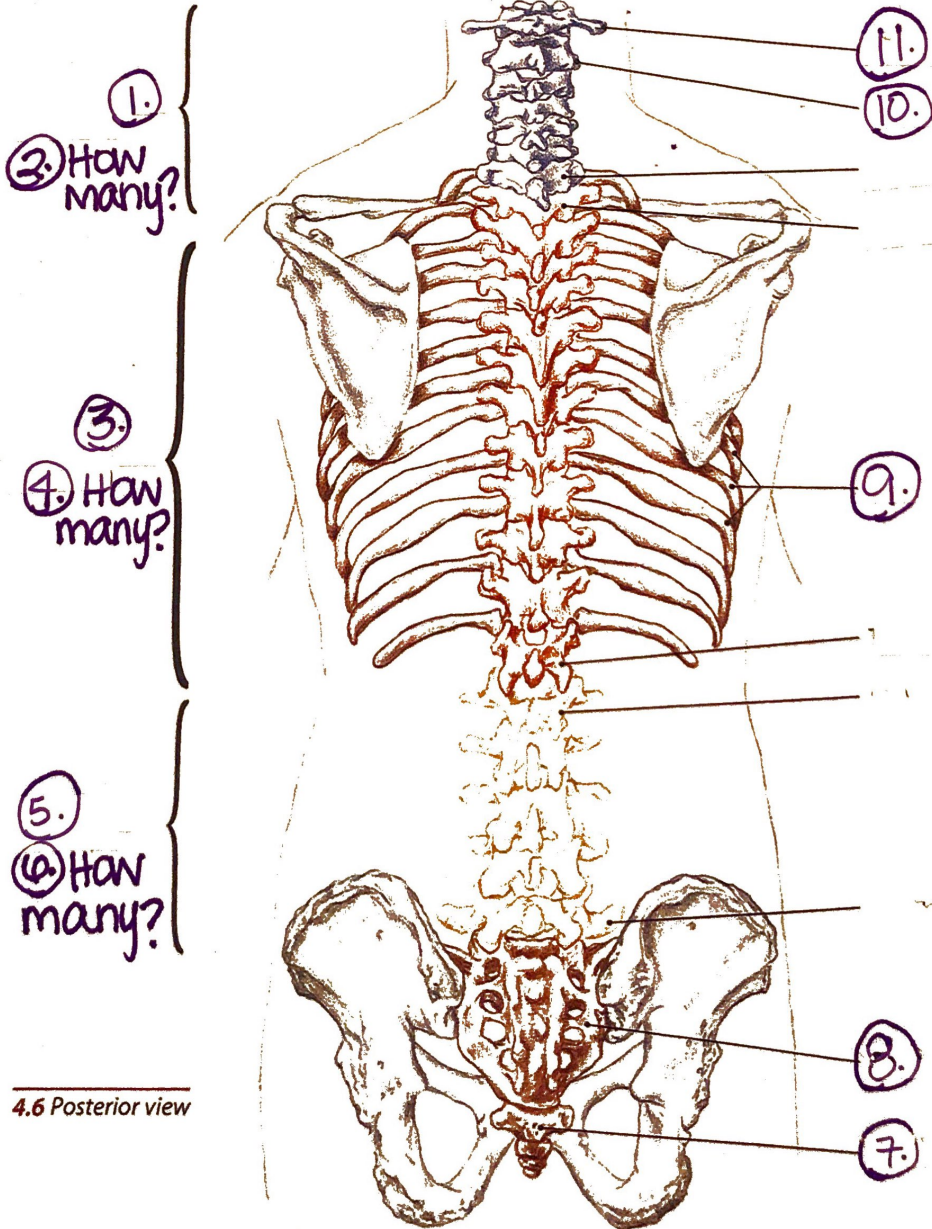
As you palpate along the back, all twenty-four vertebrae

will be deep to the layers of muscle tissue. However, the spinous and transverse processes protrude from each vertebra and can be helpful location points.

The **thorax** includes the sternum and rib cage. The superficial **sternum** ("breastbone") is located along the midline of the chest. The **rib cage** consists of costal cartilage and twelve pairs of ribs. The costal cartilage is identical in shape and size to the ribs and serves as a bridge between them and the sternum.

Ribs 1-7 are known as "true ribs" because they attach directly to the sternum. Ribs 8-12 are referred to as "false ribs" because they attach indirectly to the sternum by means of the costal cartilage. Aside from being "false ribs," the eleventh and twelfth ribs are also considered "floating ribs" as they do not attach to the sternum or costal cartilage at all.

Spine & Thorax



4.6 Posterior view

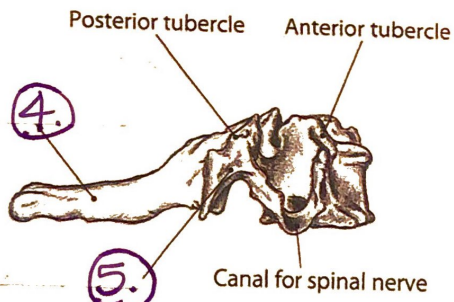
cervical  
chest  
lumbar

ser-vi-kal  
lum-bar

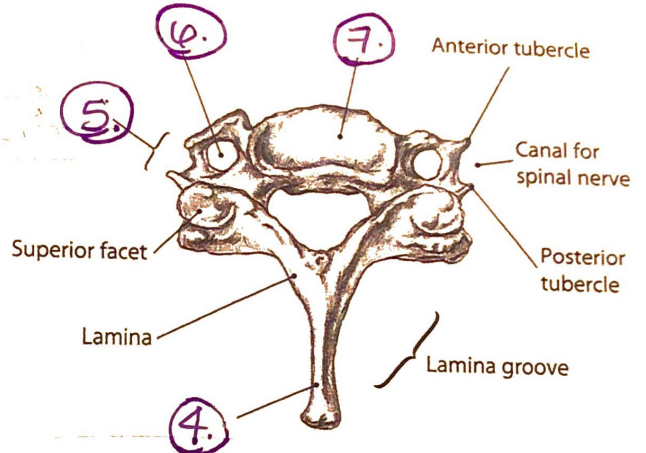
L. referring to the neck  
AS. box  
L. loin



1. TYPE

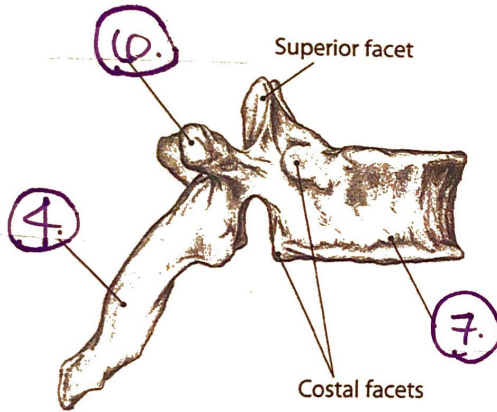


4.12 Lateral view

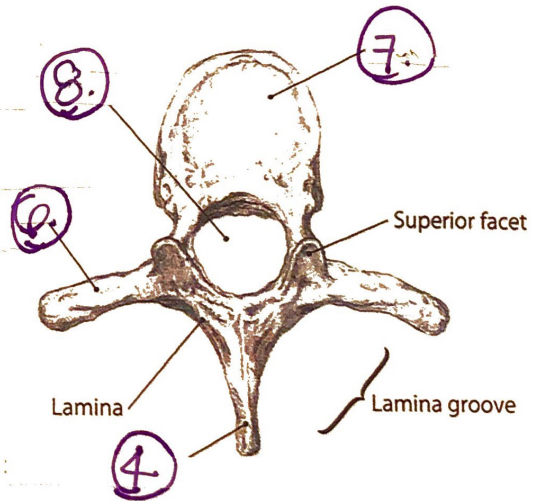


4.13 Superior view

2. TYPE

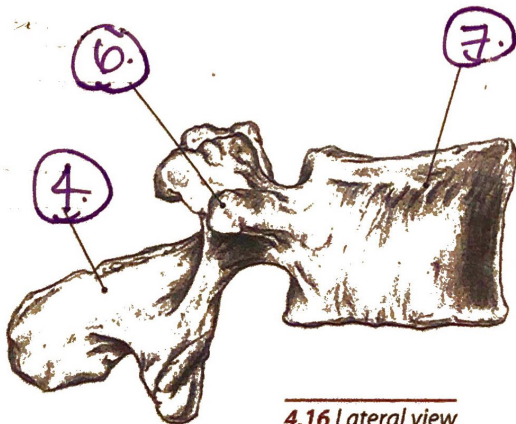


4.14 Lateral view

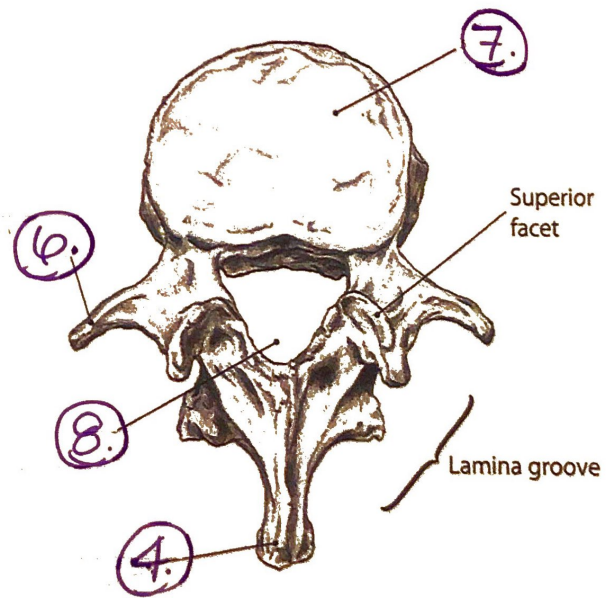


4.15 Superior view

3. TYPE



4.16 Lateral view



4.17 Superior view

Spine & Thorax

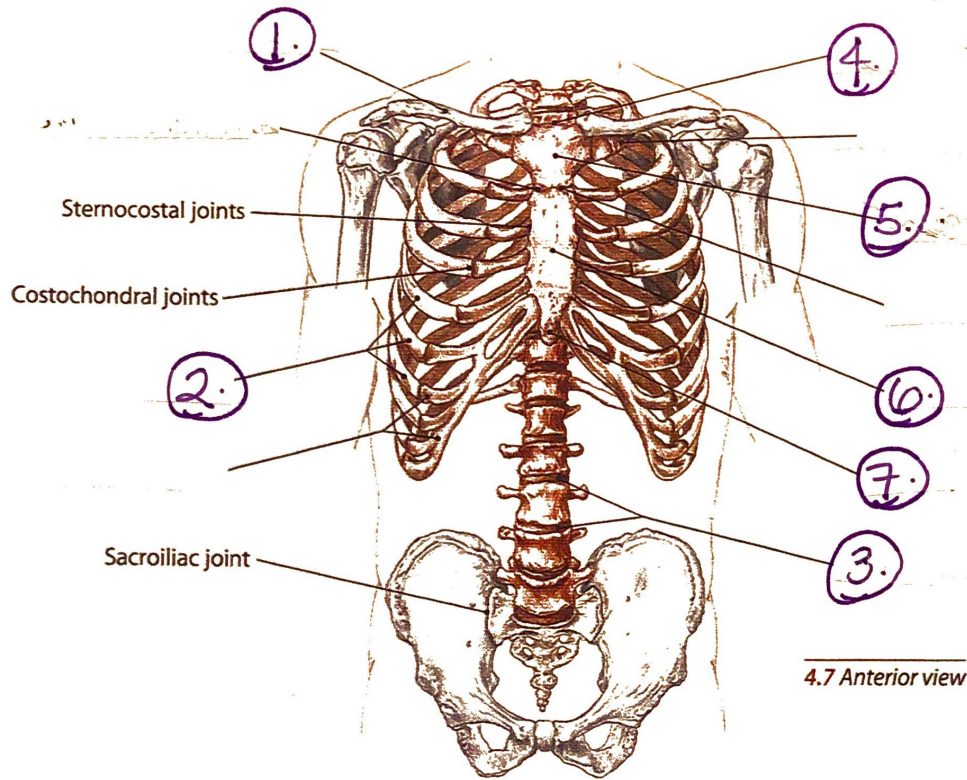
facet  
foramen  
odontoid

fas-et  
for-**aye**-men  
o-**don**-toyd

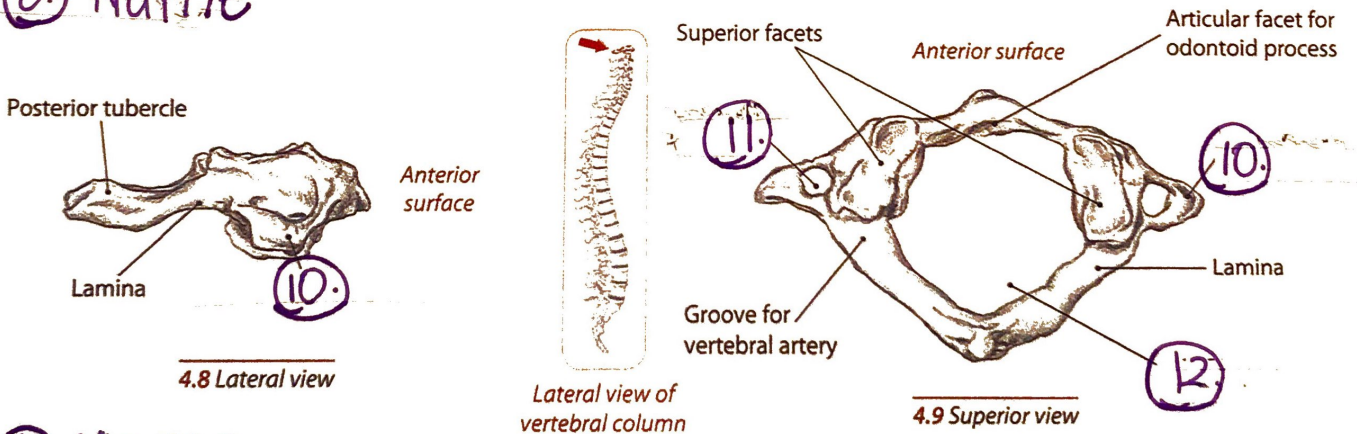
Fr. small face  
L. a passage or opening  
Grk. toothlike

c.1

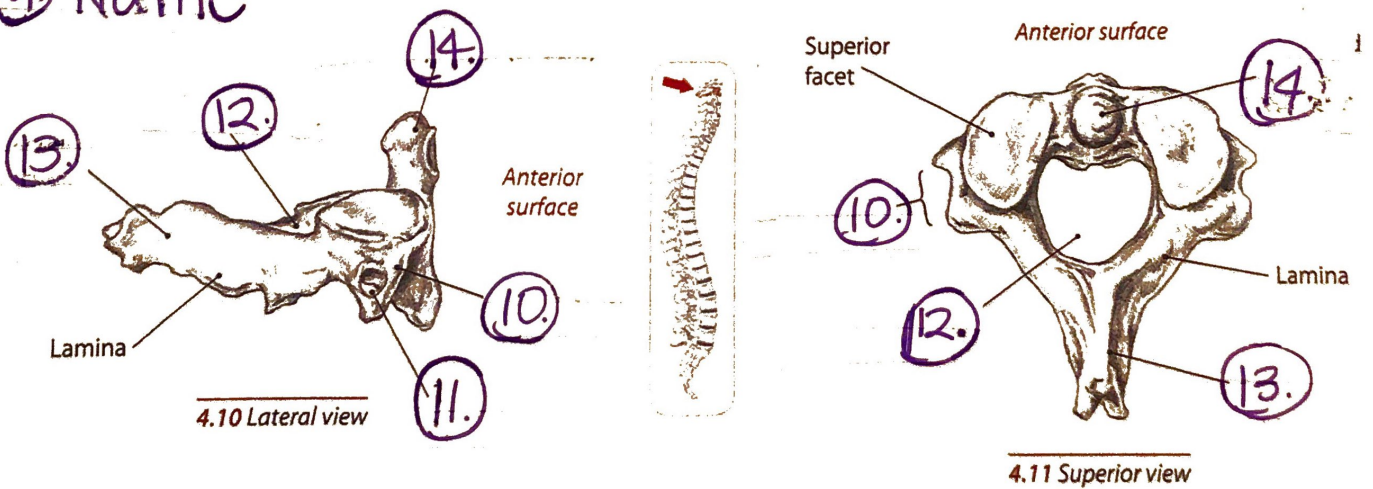
# Bony Landmarks



## 8. Name



## 9. Name



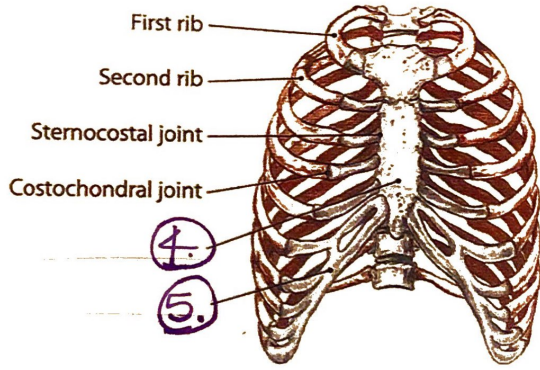
spine  
thoracic  
vertebra

tho-ras-ik  
ver-ta-bra

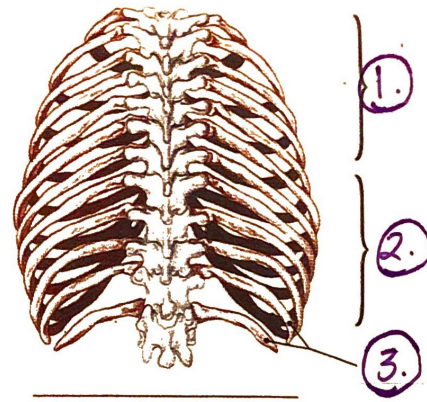
L. thorn  
Grk. chest  
L. joint



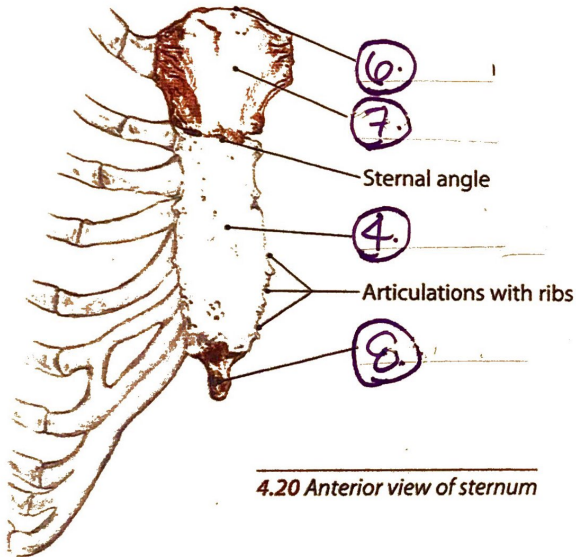
# Bony Landmarks



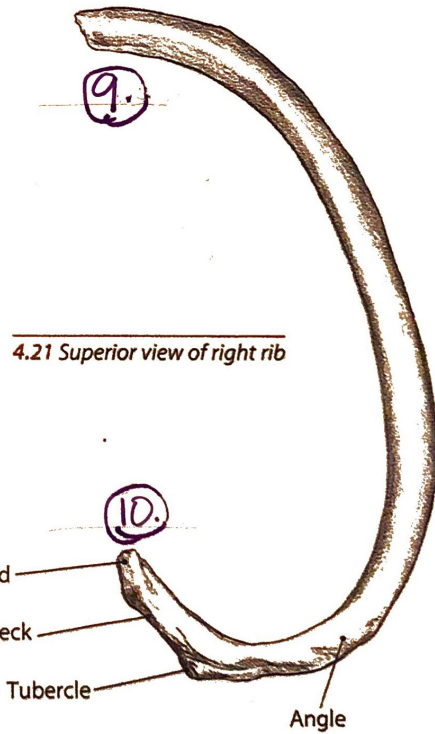
4.18 Anterior view of thorax



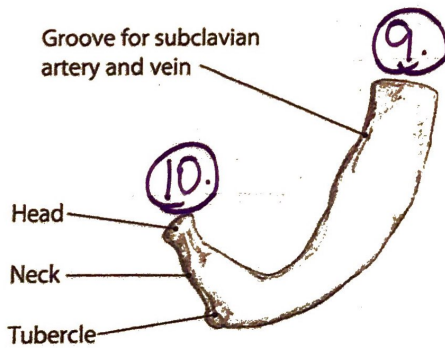
4.19 Posterior view of thorax



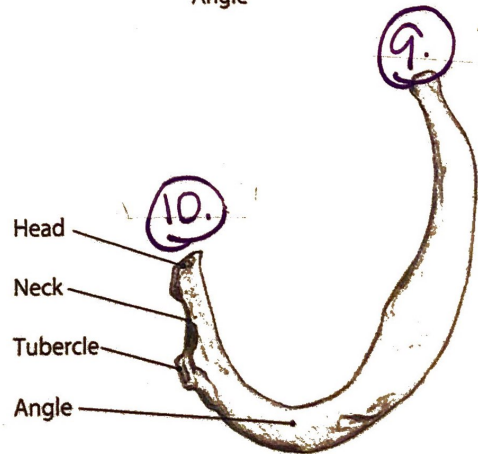
4.20 Anterior view of sternum



4.21 Superior view of right rib



4.22 Superior view of right first rib



4.23 Superior view of right second rib