



**SNS COLLEGE OF ALLIED HEALTH SCIENCES**  
SNS Kalvi Nagar, Coimbatore - 35  
Affiliated to Dr MGR Medical University, Chennai



**DEPARTMENT : CARDIAC TECHNOLOGY**

**COURSE NAME : ANATOMY**

**UNIT : THORAX**

**TOPIC : BONY THORACIC CAGE**



## BONY THORACIC CAGE



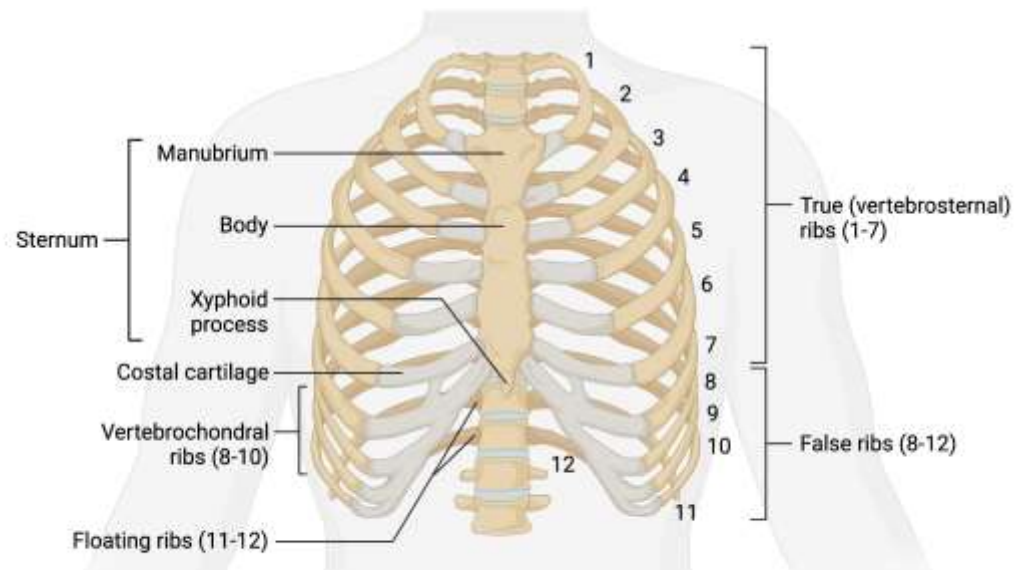
- The thoracic cage, also known as the rib cage, is the osteocartilaginous structure that encloses the thorax.
- It is formed by the 12 thoracic vertebrae, 12 pairs of ribs and associated costal cartilages and the sternum.



- The bony thoracic cage is a protective structure that surrounds and supports the thoracic organs, primarily the heart and lungs.
- It consists of several bones, cartilages, and joints, forming a framework that provides stability while allowing flexibility for breathing.



## Thoracic Cage Anatomy

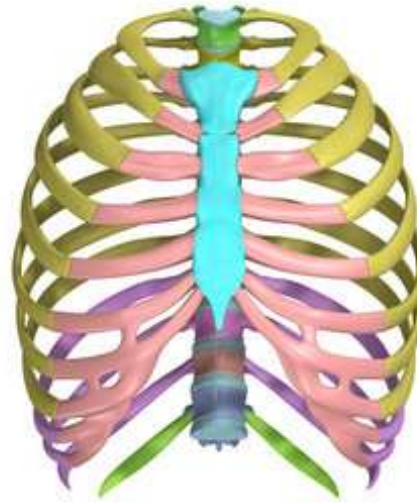




- The thoracic cage takes the form of a domed bird cage with the horizontal bars formed by ribs and costal cartilages.
- It is supported by the vertical sternum (anteriorly) and the 12 thoracic vertebrae (posteriorly).



## Thoracic skeleton: Anterior view





- The main function of the thoracic cage is to support thorax and protect the vital structures within it (e.g. heart, lungs, aorta, etc).
- In addition, the rigid structure of the cage allows it to be an attachment point for many muscles of the upper body and to support the weight of the upper limbs.



- The thoracic cage also facilitates the act of breathing by resisting the negative pressure generated by the elastic recoil of the lungs and respiration-induced movements.





# APPLIED ANATOMY



- Rib Fractures
- Costochondritis
- Sternal Fractures
- Pectus Deformities:
- Thoracic Outlet Syndrome
- Costovertebral Joint Dysfunction
- Scoliosis
- Tietze Syndrome
- Thoracic Cancer



# ASSESSMENT



- What all are the Structures involved in Thoracic cage ?
- What all are the Applied aspects of Thoracic cage ?