

The Thorax

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Aims of the Lecture

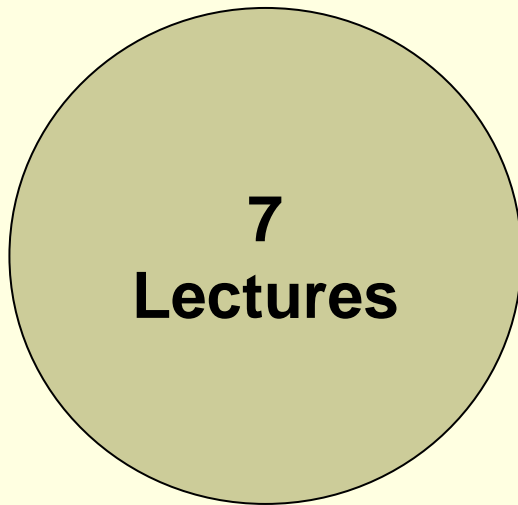
- Course objectives
- Course description
- Introduction to the Thorax
- Thoracic Wall
- Bony Skeleton

Course Objectives

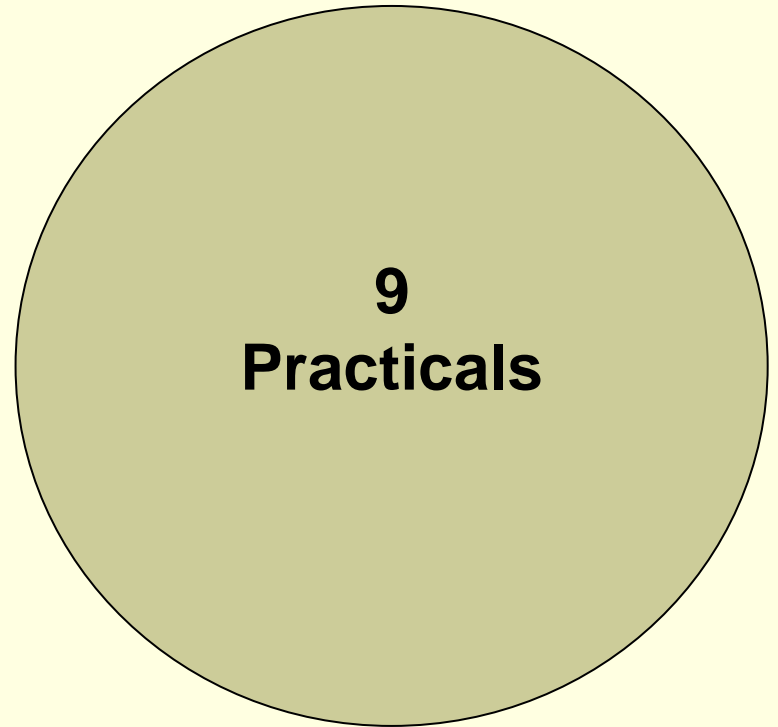
- After the end of this course you should be able to:
 1. Describe and demonstrate the normal features of the wall of the thorax
 2. Describe the thoracic cavity and identify its contents
 3. Describe and demonstrate the mediastinum (definition, regions, detailed contents)
 4. Describe the structure of the lungs and the types and extent of the pleural coverings

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5. Describe and demonstrate the normal shape, surfaces, borders of the heart
 6. Describe and demonstrate the arterial supply and venous drainage of the heart
 7. Describe the external and internal features of the heart and its chambers
 8. Describe the surface anatomy of the thoracic wall
 9. Describe the major clinical problems associated with this region

Course Description



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Course Description

■ 7 Lectures:

1. Thoracic Wall and Intercostal Spaces
2. Thoracic Cavity: Mediastinum, Lungs and Pleura (1)
3. Thoracic Cavity: Mediastinum, Lungs and Pleura (2)
4. Pericardium and Heart (1)
5. Heart (2)
6. Superior and Posterior Mediastinum
7. Surface anatomy and clinical problems of the thorax

Course Description

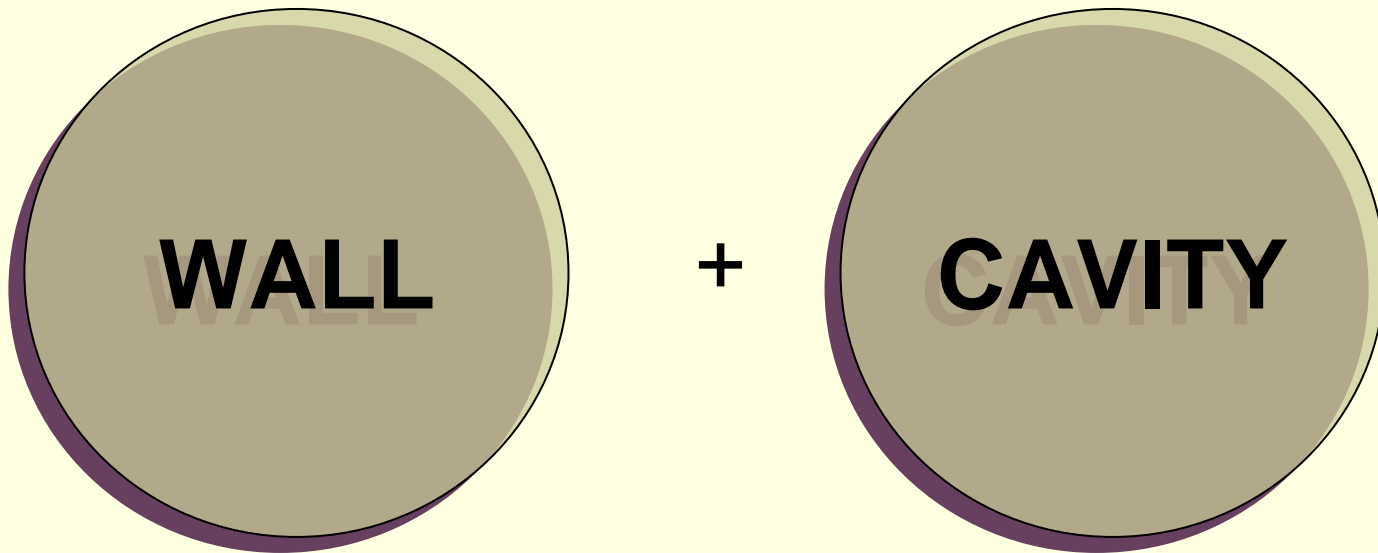
■ **9 Practicals**

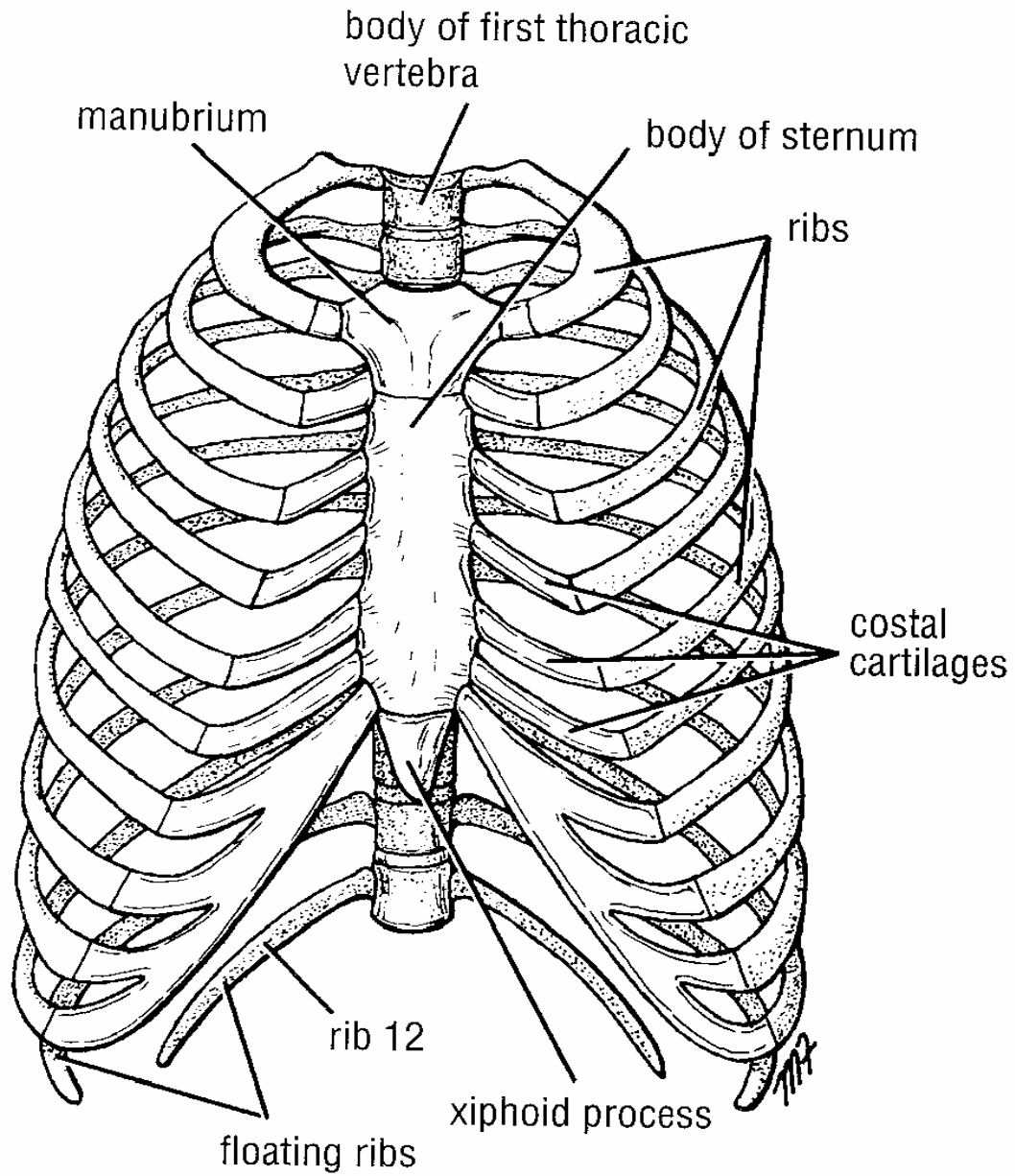
1. Introduction and Bony Skeleton
2. Thoracic Cavity with organs in situ and intercostal spaces
3. Lungs and Pleura (surfaces, borders, relations and hilum)
4. Heart (surfaces, borders, right atrium and right ventricle)

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5. Heart (left atrium, left ventricle, coronary arteries and its branches)
 6. Superior & Posterior Mediastinum
 7. Surface and Radiological Anatomy
 8. Revision
 9. Formative Assessment

Introduction to Thorax

- What is Thorax?
- The region between neck and abdomen
- It consists of :



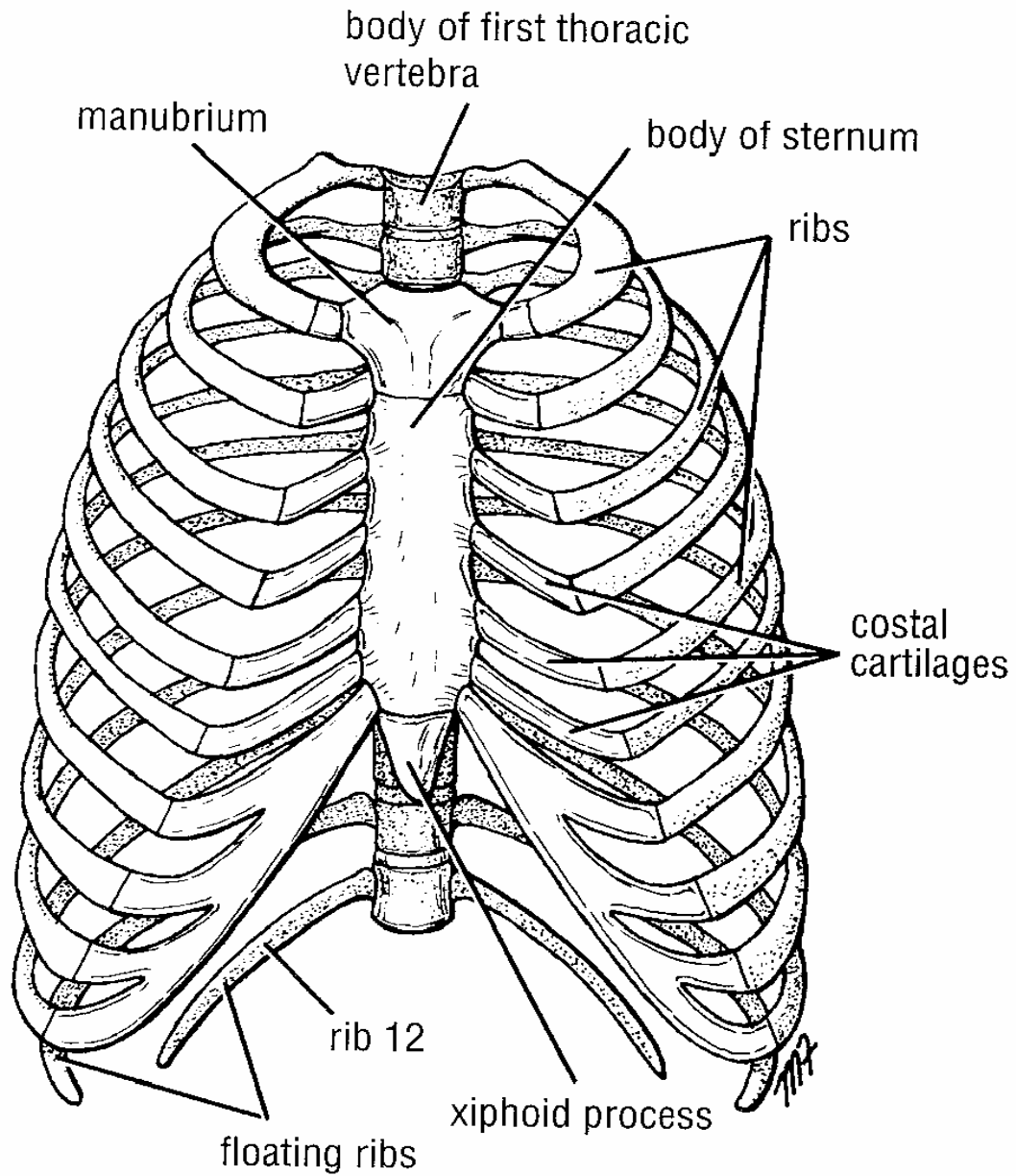


Thoracic Wall

- Consists of:
 1. Bony Skeleton
 2. Muscles filling the spaces
 3. VAN in the intercostal spaces
 4. Skin and cutaneous innervation

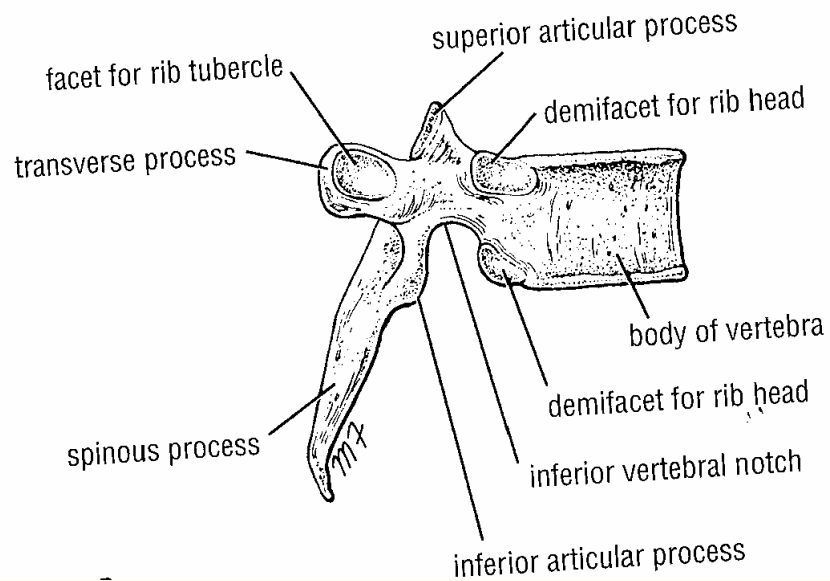
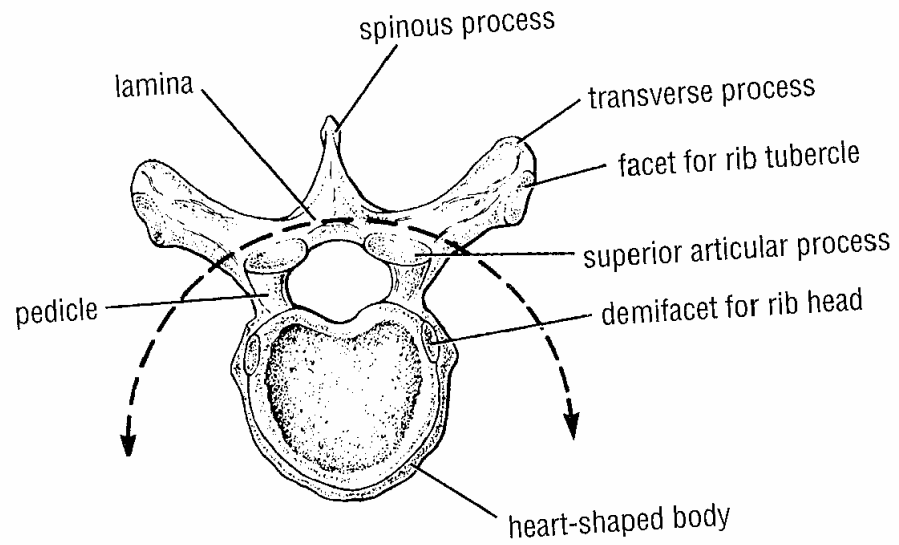
Bony Skeleton

- Thoracic cage consists of:
 1. Thoracic Vertebrae (12)
 2. Sternum
 3. Ribs (12 pairs) and costal cartilages



Thoracic Vertebrae

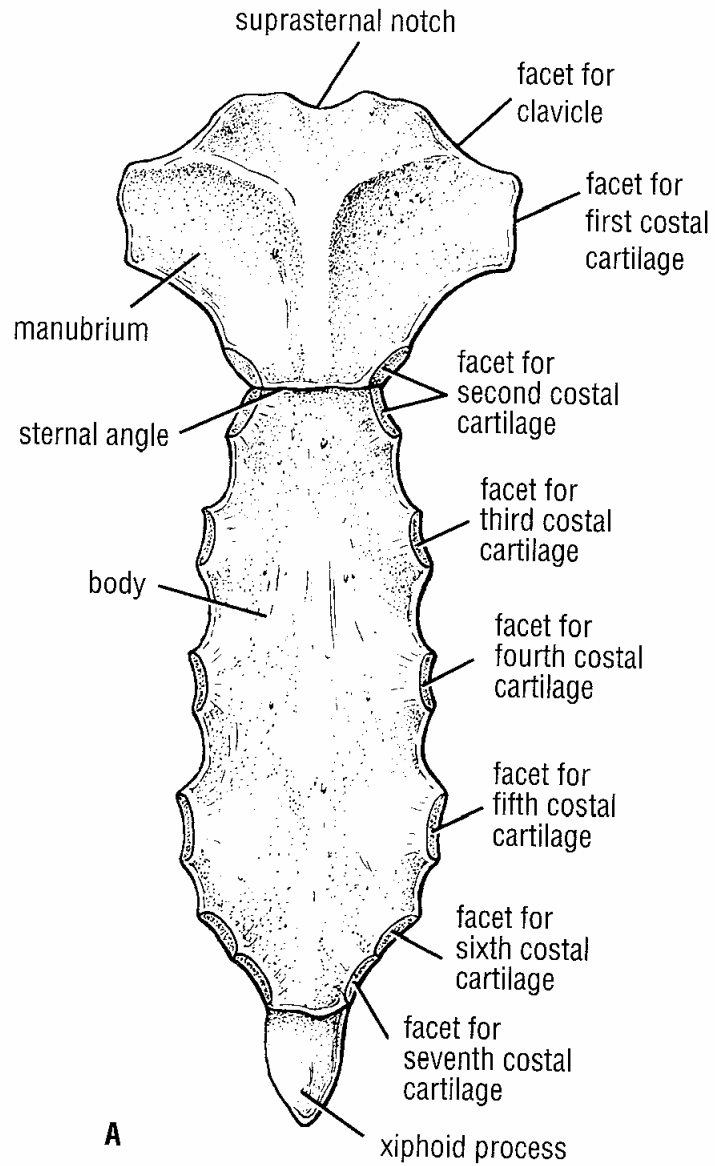
- Typical (2-8)
- Atypical (1,9,10,11,12)
- Features of the typical thoracic vertebrae:
 1. Heart shape body
 2. Spines directed downward
 3. Two semi-facets on the body side and one on the transverse process
 4. Sup. art. facet faces posterior whereas inferior art. Facet faces anterior



Sternum

- Consists of:
 1. Manubrium
 2. Body (7 articular facets for each side)
 3. Xiphoid process

- Angle between manubrium and body called Sternal Angle (Angle of Luis)

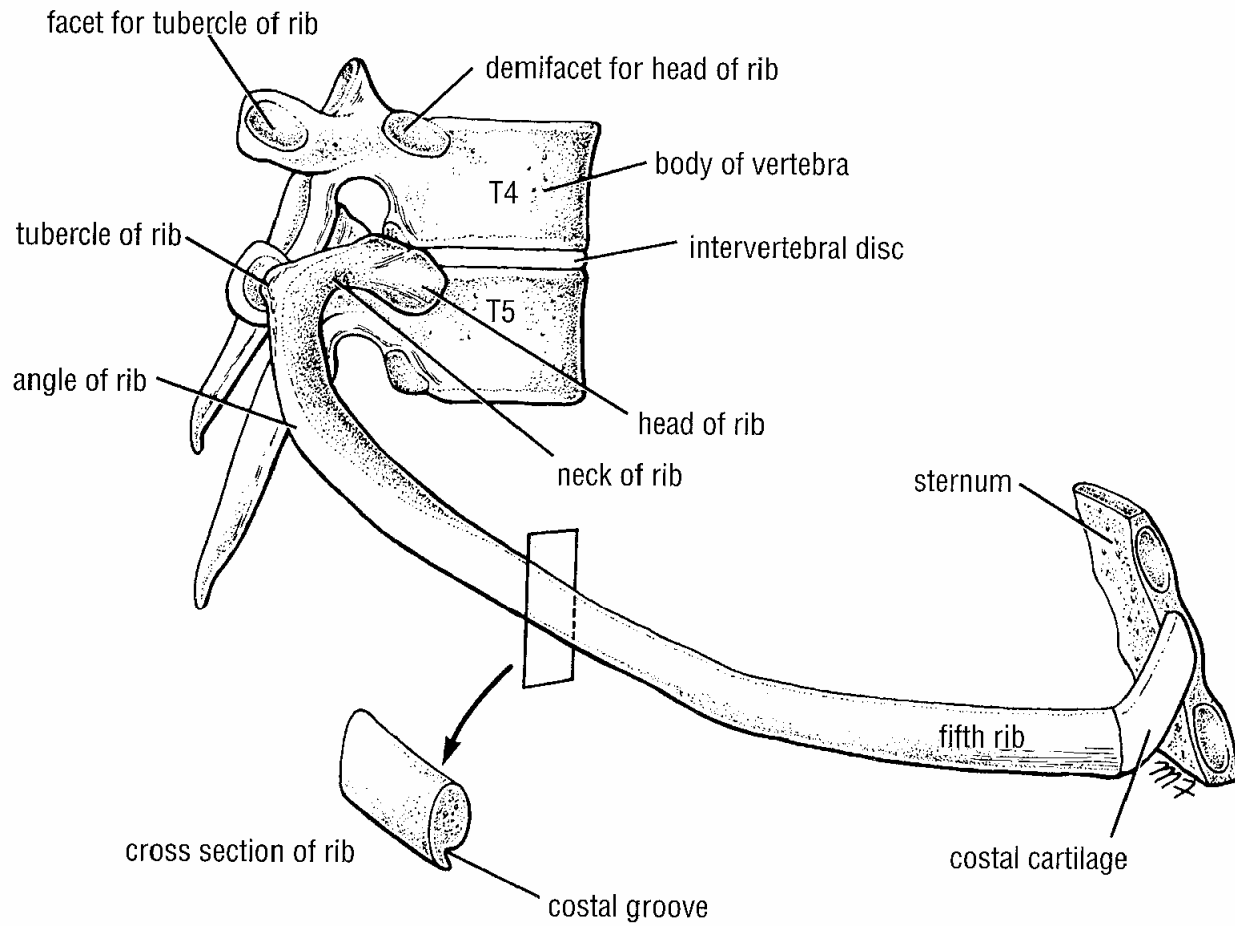


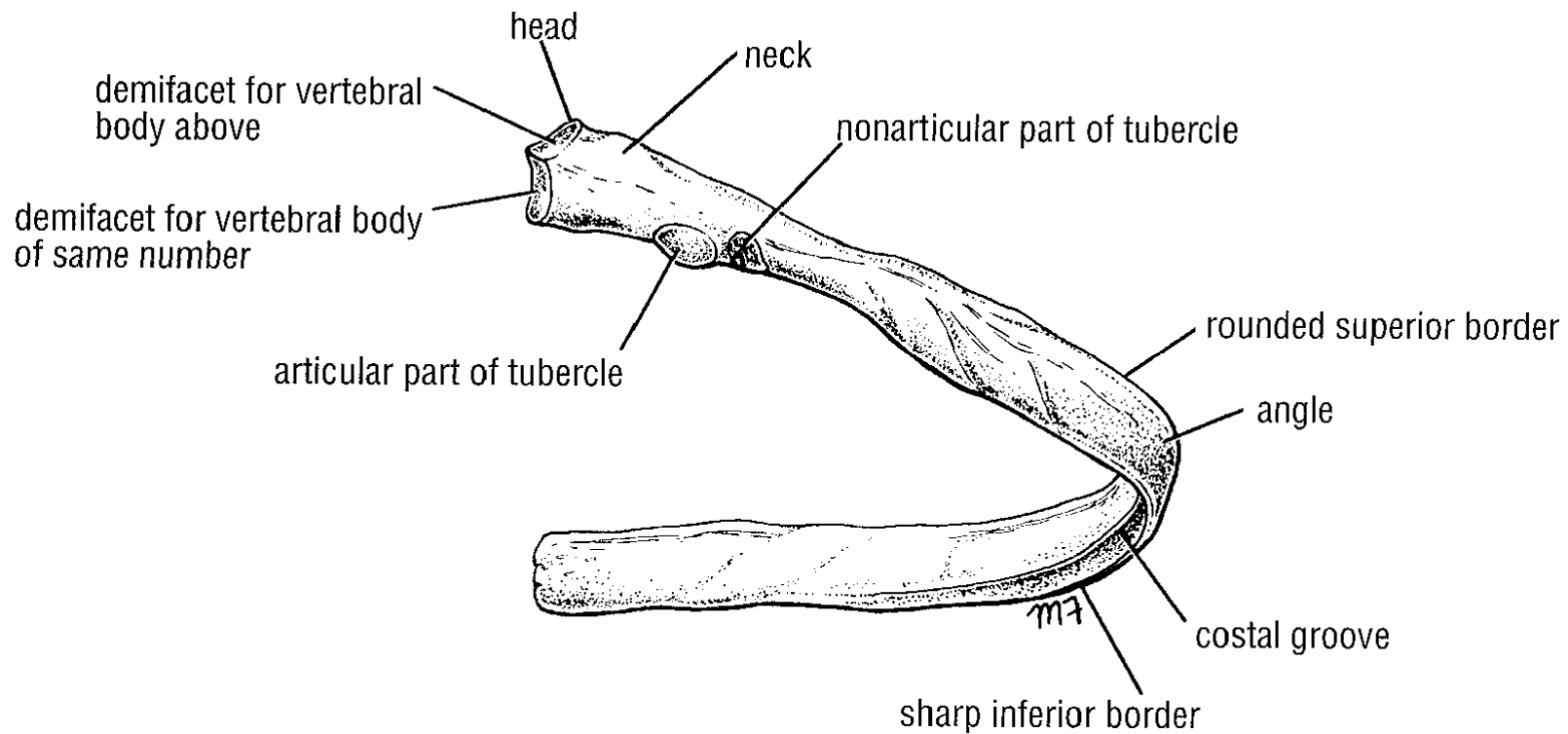
Ribs and Costal Cartilages

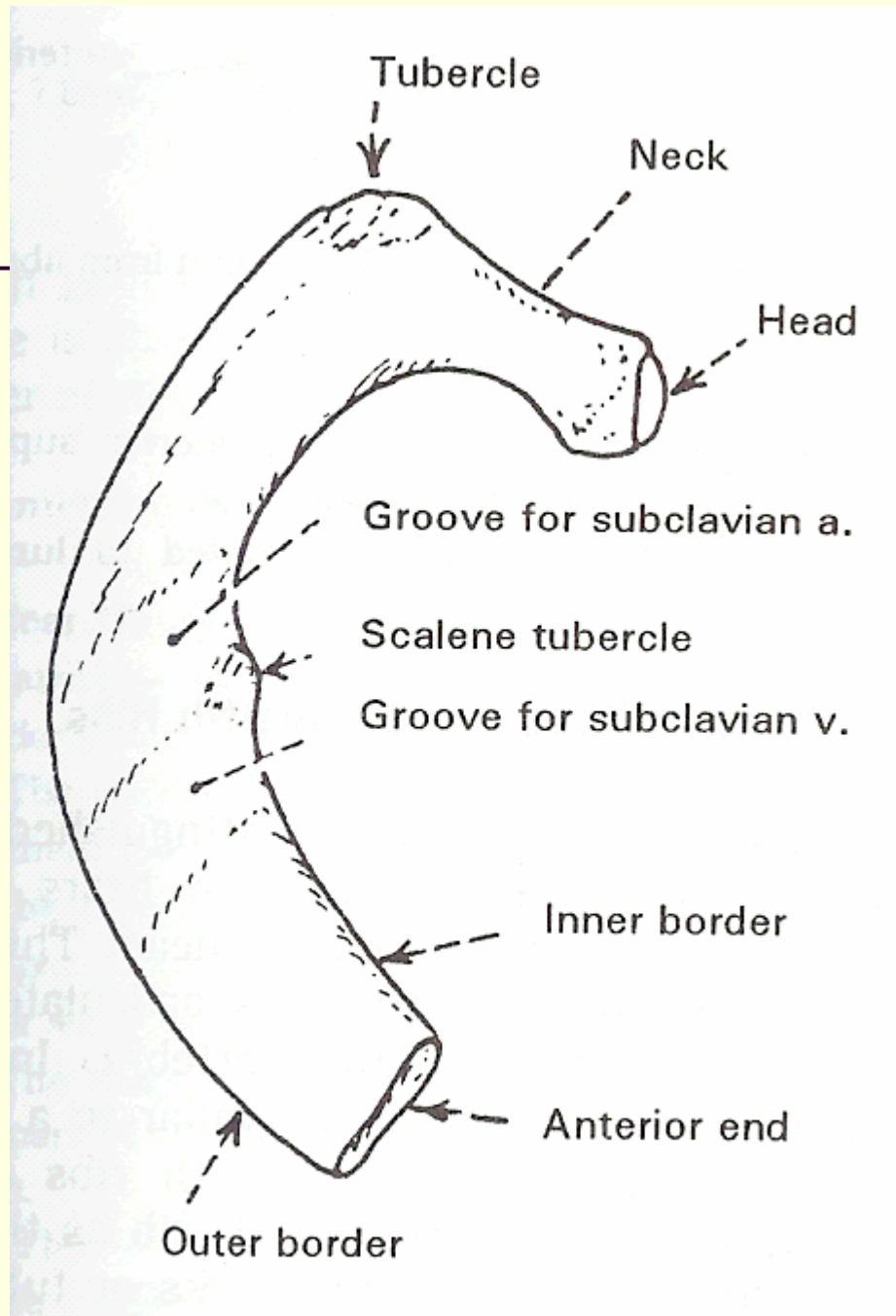
- 12 pairs
- Could be classified as:
 1. Typical (3-10) or Atypical (1,2,11,12)
 2. True (1-7), False (8-10), and Floating (11, 12)

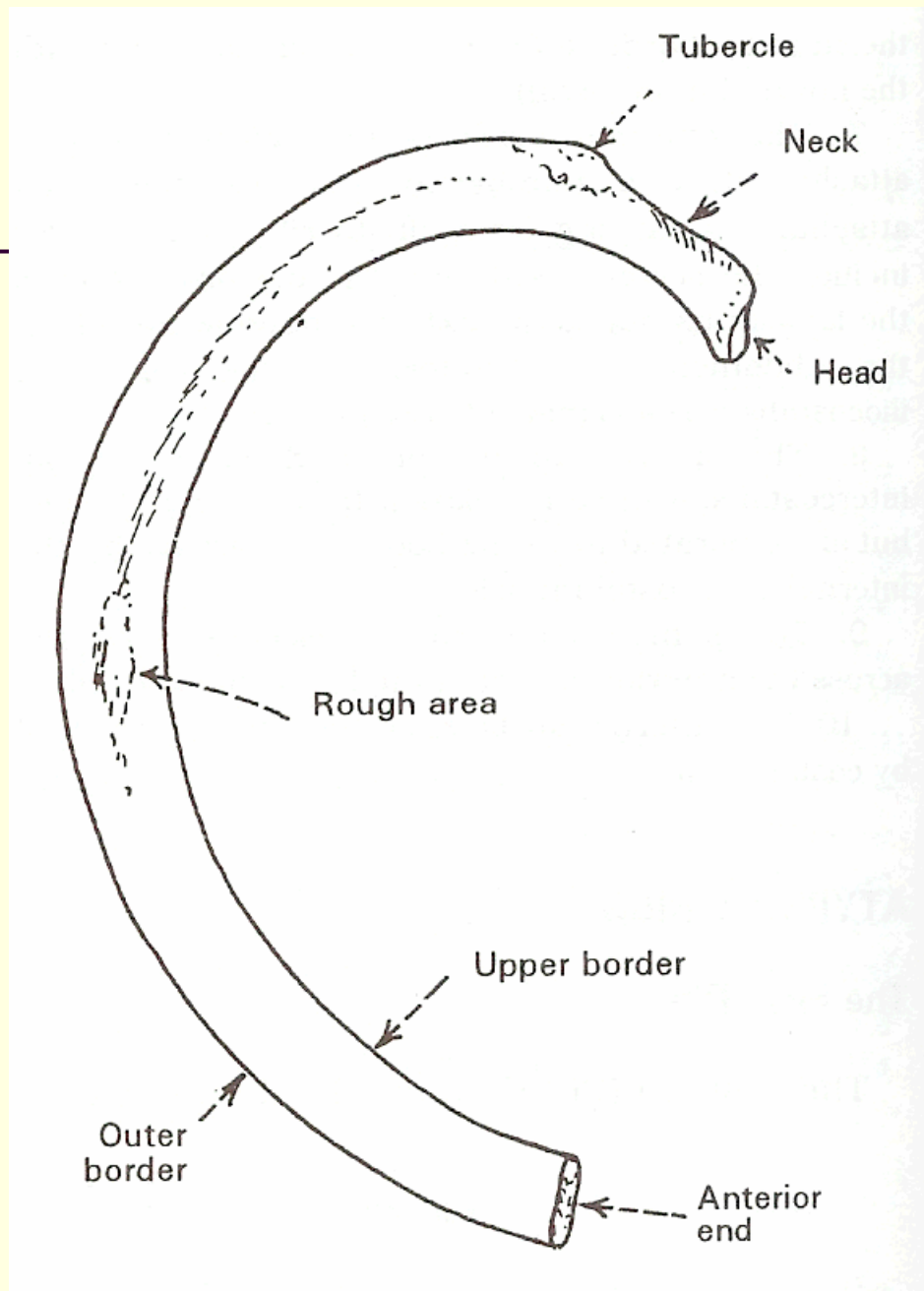
Typical Rib

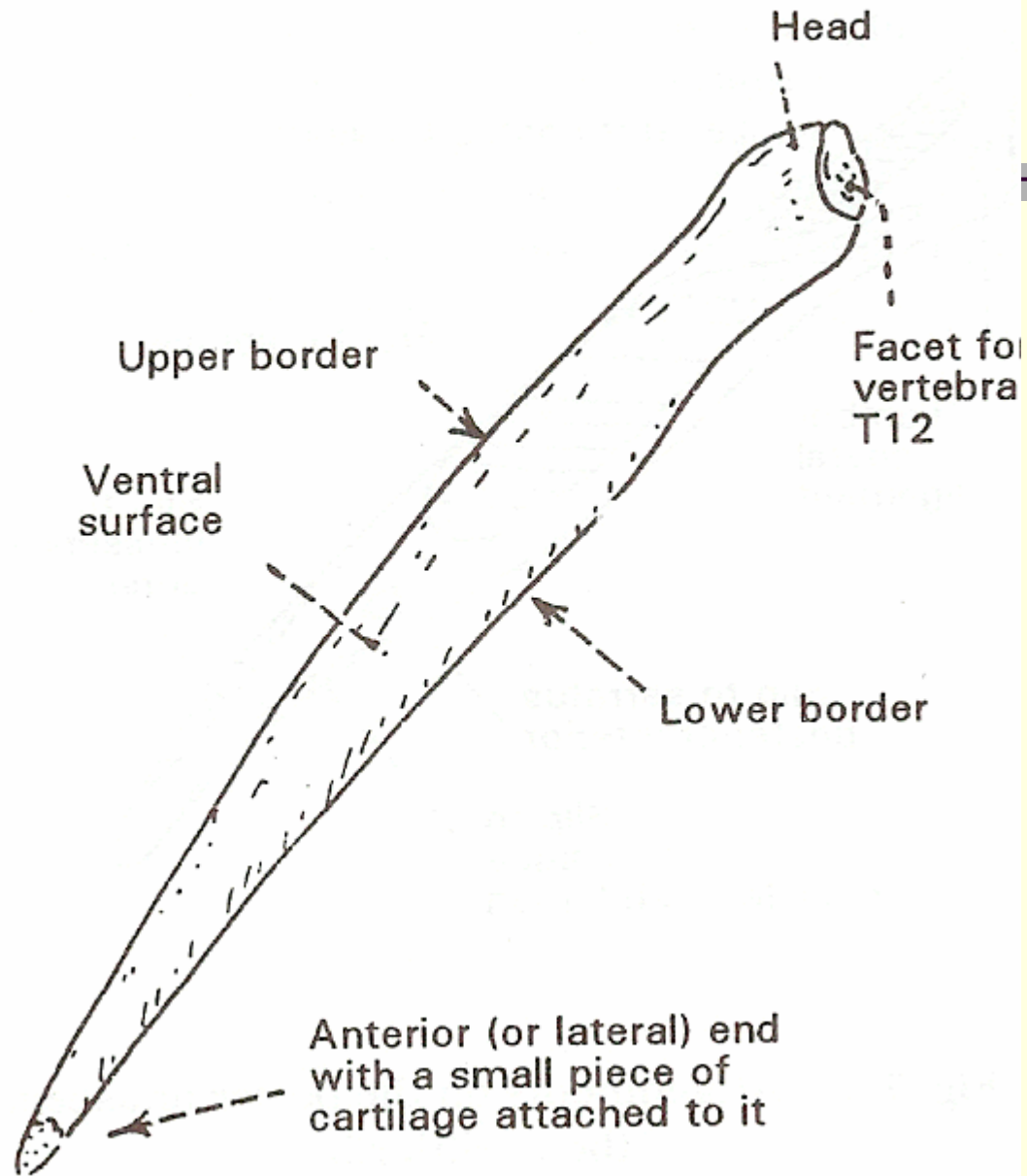
- Features:
 1. Long, twisted flat bone
 2. Rounded smooth superior border and sharp inferior border
 3. Costal groove present
 4. Has head (two facets), neck, tubercle and angle











Joints of the Thoracic Cage

- Costovertebral Joints: between head of ribs and sides of thoracic vertebral body (synovial)
- Costotransverse Joints: between tubercle of ribs and transverse process of vertebrae (synovial)
- Costochondral joints (cartilaginous)
- Chondrosternal joints (all synovial and mobile
Except the 1st)
- Manubriosternal joint (cartilaginous)
- Xiphisternal joint (cartilaginous)

