

OSTEOLOGY 1

Axial skeleton, vertebral column, ribs, thorax. General structure of the vertebral column. Parts & curvatures. True & false vertebrae. Practical investigation of the features of the: typical vertebrae, atlas, axis, cervical vertebrae, vertebra prominens, thoracic vertebrae, lumbar vertebrae, sacrum and coccyx basing on the macerated specimens of the isolated vertebrae, vertebral column and anatomical models. Structure of thorax. Thoracic outlet & inlet. Sternum. Structure of the ribs. Classification: true & false ribs, floating ribs. Anatomy of ribs– characteristic elements of the first, second middle level and floating ribs. Practical investigation of macerated specimens of the selected ribs, sternum, and whole thorax.

STRUCTURES TO BE RECOGNIZED^{i,ii}

BONES

vertebrae (always specify a segment):

vertebral body

pedicle of vertebral arch

lamina of vertebral arch

vertebral foramen

intervertebral foramen

superior vertebral notch

inferior vertebral notch

spinous process

transverse process

superior articular process

inferior articular process

cervical vertebrae:

uncus of body

foramen transversarium

anterior tubercle of transverse process

carotid tubercle

posterior tubercle of transverse process

groove for spinal nerve

atlas:

lateral mass

- superior articular surface

- inferior articular surface

anterior arch

- facet for dens

- anterior tubercle

posterior arch

- groove for vertebral artery

- posterior tubercle

axis:

dens of axis

- apex

- anterior articular facet

- posterior articular facet

thoracic vertebrae:

superior costal facet

inferior costal facet

transverse costal facet

lumbar vertebrae:

accessory process

costal process

mammillary process

sacrum:

base of sacrum

- ala (wing)

- superior articular process

- promontory

lateral part

- auricular surface

- sacral tuberosity

pelvic surface

- transverse ridges

- intervertebral foramina

- anterior sacral foramina

dorsal surface

- median sacral crest

- posterior sacral foramina

- intermediate sacral crest

- lateral sacral crest

- sacral horn

- sacral hiatus

apex of sacrum

sacral canal

Coccyx:

coccygeal cornu

Thorax:

costal cartilage

rib:

head of rib

- articular facet

- crest

neck of rib

- crest

body of rib

- tubercle of rib

* articular facet

- angle of rib

- costal groove

- crest of rib

first rib:

scalene tubercle

groove for subclavian artery

groove for subclavian vein

second rib:

tuberosity for serratus anterior

sternum:

manubrium of sternum

- clavicular notch

- jugular (suprasternal) notch

sternal angle

body of sternum

xiphoid process

costal notches

JOINTS

vertebral joints:

intervertebral disc

median atlanto-axial joint

lateral atlanto-axial joint

zygapophysial joint

lumbosacral joint

sacrococcygeal joint

thorax:

costosternal joint

synchondrosis of first rib

sternal synchondroses:

- xiphisternal joint

- manubriosternal joint

costovertebral joint:

joint of the head of rib

costotransverse joint

sternocostal joints:

costochondral joints

interchondral joints

ⁱ in specimens and models

ⁱⁱ All the above structures are to be found and recognized during your laboratory class. Nevertheless, knowledge about other structures mentioned in your textbooks and atlases is obligatory as well. We can ask about them in the intermediate practical test and the final examination practical test. Some textbook figures can appear in the MCQ questions.