

# OSTEOLOGY 5

Bones of the skull: temporal bone, maxilla, mandible, palatine bone, zygomatic bone, vomer, inferior nasal concha, lacrimal bone, nasal bone

## STRUCTURES TO BE RECOGNIZED<sup>i,ii</sup>

### BONES

#### Temporal bone

Petrous part

- Occipital margin
- Mastoid process
- Mastoid notch
- Groove for sigmoid sinus
- Occipital groove
- Mastoid foramen
- Apex of petrous part
- Carotid canal
- \* External opening of carotid canal
- \* Internal opening of carotid canal
- \* Caroticotympanic canaliculi
- Musculotubal canal
- \* Canal for tensor tympani
- \* Canal for auditory tube
- \* Septum of musculotubal canal
- Anterior surface of petrous part
- \* Tegmen tympani
- \* Arcuate eminence
- \* Hiatus for greater petrosal nerve
- \* Hiatus for lesser petrosal nerve
- \* Groove for greater petrosal nerve
- \* Groove for lesser petrosal nerve
- \* Trigeminal impression
- Superior border of petrous part
- \* Groove for superior petrosal sinus
- Posterior surface of petrous part
- \* Internal acoustic opening
- \* Internal acoustic meatus
- \* Subarcuate fossa
- \* Opening of vestibular canaliculus
- Posterior border of petrous part
- \* Groove for inferior petrosal sinus
- \* Jugular notch
- \* Intrajugular process
- Inferior surface of petrous part
- \* Jugular fossa
- \*\* mastoid canaliculus
- \* Opening of cochlear canaliculus
- \* Styloid process
- \* Stylomastoid foramen

- \* Tympanic canaliculus
- \* Petrosal fossula
- Tympanic cavity

Tympanic part

- Tympanic ring
- External acoustic opening
- External acoustic meatus
- Greater tympanic spine
- Lesser tympanic spine
- Tympanic sulcus
- Tympanic notch
- Sheath of styloid process

Squamous part

- Parietal border
- Parietal notch
- Sphenoidal margin
- Temporal surface
- Groove for middle temporal artery
- Zygomatic process

- \* Supramastoid crest
- \* Suprameatal triangle
- \* Suprameatal spine
- Mandibular fossa
- \* Articular surface
- Articular tubercle
- Petrotympanic fissure
- Petrosquamous fissure
- Tympanosquamous fissure
- Tympanomastoid fissure
- Cerebral surface

#### Maxilla

Body of maxilla

- Orbital surface
- \* Infra-orbital canal
- \* Infra-orbital groove
- Infra-orbital margin
- Anterior surface
- \* Infra-orbital foramen
- \* Canine fossa
- \* Nasal notch
- \* Anterior nasal spine
- \* Zygomaticomaxillary suture
- Infratemporal surface
- \* Alveolar foramina
- \* Alveolar canals

- \* Maxillary tuberosity
- Nasal surface
- \* Lacrimal groove
- \* Conchal crest
- \* Lacrimal margin
- \* Maxillary hiatus
- \* Greater palatine groove
- \* Maxillary sinus

Frontal process

- Anterior lacrimal crest
- Lacrimal notch
- Ethmoidal crest

Zygomatic process

Palatine process

- Nasal crest
- Incisive bone
- Incisive canals
- Incisive suture
- Palatine spines
- Palatine grooves

Alveolar process

- Alveolar arch
- Dental alveoli
- Inter-alveolar septa
- Interradicular septa
- Alveolar yokes
- Incisive foramina

#### Mandible

Body of mandible

- Base of mandible
- Mandibular symphysis
- Mental protuberance
- Mental tubercle
- Mental foramen
- Oblique line
- Digastric fossa
- Superior mental spine
- Inferior mental spine
- Mylohyoid line
- Mandibular torus
- Sublingual fossa
- Submandibular fossa
- Alveolar part
- \* Alveolar arch
- \* Dental alveoli
- \* Inter-alveolar septa

- \* Interradicular septa
- \* Alveolar yokes
- \* Retromolar triangle
- \* Retromolar fossa
- Ramus of mandible
  - Angle of mandible
  - Masseteric tuberosity
  - Pterygoid tuberosity
  - Mandibular foramen
  - Lingula
  - Mandibular canal
  - Mylohyoid groove
  - Coronoid process
  - Temporal crest
  - Mandibular notch
  - Condylar process
- \* Head of mandible
- \* Neck of mandible
- \* Pterygoid fovea
- Palatine bone**
- Perpendicular plate

- Nasal surface
- Maxillary surface
- Sphenopalatine notch
- Greater palatine groove
- Pyramidal process
- Lesser palatine canals
- Conchal crest
- Ethmoidal crest
- Orbital process
- Sphenoidal process
- Horizontal plate
  - Nasal surface
  - Palatine surface
  - Posterior nasal spine
  - Nasal crest
  - Palatine crest
- Zygomatic bone**
- Lateral surface
- Temporal surface
- Orbital surface
- Temporal process

- Frontal process
- Zygomatico-orbital foramen
- Zygomaticofacial foramen
- Zygomaticotemporal foramen
- Vomer**
- Ala of vomer
- Vomerine groove
- Vomerine crest of choana
- Cuneiform part of vomer
- Inferior nasal concha**
- Lacrimal process
- Maxillary process
- Ethmoidal process
- Lacrimal bone**
- Posterior lacrimal crest
- Lacrimal groove
- Lacrimal hamulus
- Nasal bone**
- Ethmoidal groove
- Nasal foramina

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<sup>i</sup> in specimens and models

<sup>ii</sup> 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 test and the final examination test. Some textbook figures can appear in the MCQ questions.