

## Unit 17: Topographic anatomy: **Parotid and temporal regions**

### Guide for the practical class using Anatomedia online

#### Topography of parotid and temporal regions:

1. Go to An@tomedica, **head** module-regions-frame: **05** (Regions of head)
  - Click on underlined text to locate and distinguish cranial, facial and upper airway regions of the head
  - Activate 'can you identify' to distinguish superficial from deep regions
2. Go to An@tomedica, **head** module-regions-frame: **08** (Temporal region)
  - Click on underlined text to list the layers of the temporal region and the 'danger area'
  - Activate 'lm' to show boundaries of temporal region
  - Activate 'can you identify' to visualize surface and bony markings as well as contents of the temporal region
3. Go to An@tomedica, **head** module-regions-frame: **20** (Parotid region)
  - Click on underlined text to list:
    - boundaries of parotid region and its contents
    - structures entering to and emerging from the parotid gland
  - Activate 'can you identify' to visualize branches of facial nerve/artery/vein supplying face (including muscles of facial expression), press red 'a' and blue 'v' buttons to highlight appropriate structures
4. Go to An@tomedica, **head** module-dissection-frames: **12 & 13** (Parotid fascia & buccal SMAS cut, Parotid gland & platysma excised)
  - Activate 'can you identify' to visualize parotid gland, fat pads, different muscle groups, blood vessels and nerves; pressing different colored buttons will highlight different structures (bones, muscles, fascia, fat, nerves, arteries, veins, viscera)
5. Go to An@tomedica, **head** module-regions-frame: **22** (Infratemporal region)
  - Click on underlined text to list boundaries of infratemporal region and its contents (veins, arteries, nerves, muscles)
  - Activate 'can you identify' to visualize the content of infratemporal region and 'lm' button to demarcate boundaries of this region

## **TMJ and muscles of mastication:**

6. Go to An@tomedica, **head** module-systems-frames: **25 & 26** (TM joint, bony surfaces and soft tissue)

-Click on underlined text to list and distinguish:

-bony articular surfaces of TMJ

-soft tissue components and complex movements of TMJ

-Activate 'can you identify' to visualize articular facets and capsule/ligament attachment of TMJ

7. Go to An@tomedica, **head** module-systems-frame: **27** (Muscles of mastication)

-Click on underlined text to list and distinguish:

-four principle muscles of mastication (origin, insertion, function)

-accessory mastication muscles

-their developmental origin (hence innervation) and vascular supply

-Activate 'can you identify' to visualize different muscle of mastication (from the functional point of view), press red 'm' button to highlight muscles

*Try to move your mandible in different directions by activating different muscles of mastication*

## **Nerves and blood vessels of parotid and temporal regions**

8. Go to An@tomedica, **head** module-systems-frame: **63** (Cranial nerve VII)

-Click on underlined text to review anatomy of the facial nerve, particularly important are intracranial branches of CN VII, most importantly chorda tympani that project to the lingual nerve

-Activate 'can you identify' to visualize intracranial branches of the facial nerve

9. Go to An@tomedica, **head** module-systems-frame: **62** (Cranial nerve V)

-Click on underlined text to review anatomy of the trigeminal nerve, particularly the mandibular nerve (Vc): lingual, inferior alveolar, auriculotemporal, buccal

-Activate 'can you identify' to visualize individual branches of the mandibular nerve

10. Go to An@tomedica, **head** module-systems-frame: **66** (Cranial nerve IX & X)

-Click on underlined text to review information of secretomotor fibres of CN IX and fibres for the parotid gland

-Activate 'can you identify' to visualize secretomotor fibres of CN IX

11. Go to A@tomeia, **head** module-systems-frame: **68** (External carotid artery)
  - Click on underlined text to list branches of the external carotid artery, particularly the course and branches of the maxillary artery
  - Activate 'can you identify' to visualize the above arterial branches
  
12. Go to An@tomeia, **head** module-systems-frame: **71** (Extracranial & diploic veins)
  - Click on underlined text to list superficial and deep extracranial veins and their tributaries
  - Activate 'can you identify' to visualize the above veins and their tributaries

## **Ear**

13. Go to An@tomeia, **head** module-regions-frame: **16** (External ear & tympanic membrane)
  - Click on underlined text to list the features of the auricle, external acoustic meatus and tympanic membrane
  - Activate 'can you identify' to visualize details of the above features
  
14. Go to An@tomeia, **head** module-imaging-frame: **47** (External ear-otoscopy)
  - Activate 'can you identify' to visualize parts of the external acoustic meatus via endoscopy
  - Click on underlined text to access the video recording of the external ear
  
15. Go to An@tomeia, **head** module-regions-frame: **17** (Wall & contents of middle ear)
  - Click on underlined text to list the walls of tympanic cavity (and its extensions) and its contents (bones, muscles, nerves)
  - Activate 'can you identify' to visualize details of the above features
  
16. Go to An@tomeia, **head** module-systems-frame: **13** (Temporal interior & ear ossicles)
  - Click on underlined text to list details about the interior of the temporal bone including bones, joints and muscles of tympanic cavity
  - Activate 'can you identify' to visualize the above structures
  
17. Go to An@tomeia, **head** module-regions-frame: **18** (Site of tympanic cavity & inner ear)
  - Click on underlined text to list parts of the tympanic cavity and of the bony labyrinth
  - Activate 'can you identify' to visualize details of the above features

18. Go to An@tomedica, **head** module-systems-frame: **64** (Inner ear)

-Click on underlined text to visualize inner ear, bony labyrinth (vestibule, cochlea, semicircular canals), membranous labyrinth (utricle and saccule, semicircular ducts, cochlear duct) and receptors for balance and hearing

-Activate 'can you identify' to visualize the above structures