

Unit 16: 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@tomedica, **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@tomedica, **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@tomedica, **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@tomedica, **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@tomedica, **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@tomedica, **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@tomedica, **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