

Session I - The Skull & the Cervical Vertebrae

Bones

- Cervical vertebrae
 - Typical
 - Atypical
- Palpable parts of cervical vertebrae
- Skull
- General architecture
- Cranium
- Features on the external surface of base of skull

Self-study

- Features of typical and atypical cervical vertebrae
- Palpable parts of cervical vertebrae
- General architecture of skull
- Various bones forming the skull and the sutures connecting them
- Various foramina of skull
- Base of skull

Surface landmarks

- Ear
 - Auricle
 - Helix
 - Anthelix
 - Tragus
 - Scaphoid fossa
- Back and side of head
 - External occipital protuberance
 - Superior nuchal line
 - Mastoid process
- Nose
 - Nasal bones
 - Frontal process of maxilla
 - Vestibule of nose
 - Ala of nose
- Mouth
 - Oral fissure
 - Angles of mouth
 - Vestibule of mouth
 - Philtrum
 - Frenulum of lip
 - Teeth
- Eyebrows
- Glabella
- Eyes
 - Eyelids-upper & lower
 - Palpebral fissure
 - Medial Canthus
 - Lateral canthus
 - Sclera
 - Cornea
 - Pupil
 - Iris
- Lacrimal apparatus
 - Conjunctival sac
 - Palpebral fissure
 - Inner and outer canthi
 - Lacus lacrimalis
 - Lacrimal caruncle
 - Plica semilunaris
 - Lacrimal papilla
 - Lacrimal punctum
 - Lacrimal canaliculus

Bones

- Mandible
- Zygomatic arch
- Orbit

Scalp

- Skin of scalp
- Epicranial aponeurosis
- Frontal belly of occipitofrontalis
- Supratrochlear nerve and vessels
- Supraorbital nerve and vessels
- Zygomaticotemporal nerve
- Auriculotemporal nerve
- Temporal branch of facial nerve
- Superficial temporal vessels
- Occipital belly of occipitofrontalis
- 3rd occipital nerve
- Occipital artery and greater occipital nerve

Face

- Orbicularis oculi and its parts
- Orbicularis oris and its constituents
- Buccinator
- Facial artery
- Angular vein
- Facial vein
- Branches of facial nerve

Self study

- Layers of scalp, blood supply, nerve supply, lymphatic drainage and applied anatomy of scalp
- Muscles of facial expression
- Various parts, attachments, nerve supply and actions of
 - Orbicularis oculi
 - Orbicularis oris
 - Buccinator
- Blood supply and nerve supply of face
- Anastomosis between branches of internal and external carotid arteries

Session III - The Cranial Cavity

Opening of calvaria & removal of brain

Dissection

- Sutures
- Pericranium
- Endocranium
- Diploe tissue
- Superior sagittal sinus
- Dura mater
- Falx cerebri
- Tentorium cerebelli
- Falx cerebelli
- Diaphragma sellae

Anterior cranial fossa

- Crista galli
- Cribriform plate
- Olfactory nerve endings
- Optic nerve
- Orbital plate of frontal bone

Middle cranial fossa

- Oculomotor nerve
- Trochlear nerve
- Trigeminal nerve and its three divisions
- Motor root of trigeminal nerve
- Trigeminal ganglion
- Meckel's cave / cavum trigeminale
- Cavernous sinus
- Greater & lesser petrosal nerves
- Pituitary gland
- Internal carotid arteries

Posterior cranial fossa

- Abducent nerve
- Facial nerve
- Vestibulocochlear nerve

- Glossopharyngeal nerve
- Vagus nerve
- Accessory nerve - spinal & cranial parts
- Hypoglossal nerve
- Cut end of medulla / spinal cord
- Vertebral arteries
- Transverse sinuses
- Sigmoid sinuses
- Inferior petrosal sinus

Self-study

- Boundaries, contents, various foramina and structures passing through the foramina in
 - Anterior cranial fossa
 - Middle cranial fossa
 - Posterior cranial fossa
- Attachments and venous sinuses related to
 - Falx cerebri
 - Tentorium cerebelli
 - Falx cerebelli
 - Diaphragma sellae
- Dural venous sinuses
- Location, relations, tributaries and communications of
 - Cavernous sinus
 - Superior sagittal sinus
 - Transverse sinuses
- Emissary veins

Head & Neck

Session IV - The Posterior Triangle of the Neck

Surface anatomy

- Mastoid process
- Transverse process of atlas
- Angle of mandible

Dissection

- Sternocleidomastoid & platysma
- External jugular vein
- Deep fascia of neck - investing layer
- Supraclavicular nerves
- Spinal accessory nerve
- C3, C4 branches to trapezius
- Great auricular nerve
- Transverse cervical nerve
- Transverse cervical and suprascapular vessels
- Inferior belly of omohyoid
- Suprascapular & dorsal scapular nerves
- Scalenus anterior & medius muscles
- Roots & trunks of brachial plexus
- Nerve to subclavius
- Phrenic nerve
- Long thoracic nerve
- Subclavian artery and vein
- Posterior auricular & greater occipital nerves
- Third occipital nerve
- Lesser occipital nerve

- Trapezius, levator scapulae, splenius capitis, longissimus, semispinalis capitis muscles
- Deep cervical artery
- Occipital artery

Self-study

- Three layers of deep cervical fascia, their attachments and their applied anatomy
- Boundaries and contents of posterior triangle of neck
- Formation, relations, branches and root value of the branches, and distribution of
 - Cervical plexus
 - Brachial plexus
- Formation / origin, course, termination, tributaries / branches and applied anatomy of
 - External jugular vein
 - Suprascapular artery and vein
 - Transverse cervical artery and vein
- Attachments, nerve supply and actions of
 - Sternocleidomastoid
 - Trapezius
- Origin, root value, course, relations and distribution of spinal accessory nerve

Session V - The Sub-occipital Triangle (Back)

Dissection

- Obliquus capitis superior
- Obliquus capitis inferior
- Rectus capitis posterior major
- Rectus capitis posterior minor
- Vertebral artery
- Suboccipital nerve (dorsal ramus of C1)
- Suboccipital plexus of veins

Self study

- Boundaries and contents of suboccipital triangle
- Applied anatomy - cisternal puncture

(Attachments of individual muscles need not be studied)

Session VI - The Anterior Triangle of the Neck

Surface anatomy

- Symphysis menti
- Body of hyoid bone
- Laryngeal prominence
- Cricoid cartilage
- Mastoid process
- Transverse processes of cervical vertebrae

Dissection

- Platysma
- Anterior jugular vein
- Suprasternal space
- Anterior belly of digastric muscle
- Mylohyoid muscle
- Sternocleidomastoid

Muscular triangle

- Infrahyoid muscles
 - Sternohyoid
 - Sternothyroid
 - Thyrohyoid
 - Superior belly of omohyoid
- Isthmus of thyroid gland
- Inferior thyroid veins
- Levator glandulae thyroideae
- Cricothyroid ligament
- Median thyrohyoid ligament

Digastric triangle

- Facial artery and vein
- Submandibular salivary gland
- Submental branch of facial artery
- Hyoid bone

- Posterior belly of digastric muscle
- Stylohyoid muscle
- Hypoglossal nerve
- Hyoglossus muscle

Carotid triangle

- Ansa cervicalis, its superior root and inferior root
- Common carotid and internal carotid arteries, vagus nerve and internal jugular vein in carotid sheath
- External carotid artery and its branches viz. superior thyroid, lingual, facial, occipital and posterior auricular arteries
- Facial vein, lingual vein, superior thyroid vein
- Internal laryngeal nerve
- External laryngeal nerve
- Middle constrictor muscle
- Inferior constrictor muscle

Self-study

- Boundaries and contents of muscular, digastric, carotid, submental triangles
- Attachments, nerve supply and actions of platysma, omohyoid, digastric, mylohyoid, sternohyoid, sternothyroid, thyrohyoid
- Carotid sheath and its contents
- Origin, course, branches and termination of external carotid artery

Head & Neck

Session VII - The Deep Dissection of the Neck

Dissection

- Sternocleidomastoid muscle
- Sternohyoid muscle
- Sternothyroid muscle
- Remnants of thymus
- Superior thyroid vessels and external laryngeal nerve
- Inferior thyroid artery and recurrent laryngeal nerve
- Superior laryngeal artery and internal laryngeal nerve
- Inferior thyroid veins
- Trachea, oesophagus
- Thoracic duct - termination
- Cricothyroid muscle
- Inferior constrictor muscle
- Lobes and isthmus of thyroid gland

- Parathyroid glands
- Sympathetic chains - middle and inferior cervical ganglia
- Internal jugular vein
- Subclavian vein
- Subclavian artery and its branches

Self-study

- Morphology, relations, capsules, blood supply, lymphatic drainage, development, structure, functions and applied anatomy of thyroid and parathyroid glands
- Origin, course, relations, branches of subclavian artery
- Morphology and relations of trachea and oesophagus

Session VIII - Nerves and Vessels of Neck & Prevertebral Region

Dissection

- Common carotid artery
- Internal carotid artery
- External carotid artery
- Ascending pharyngeal artery
- Occipital artery
- Posterior auricular artery
- Vertebral artery and vein
- Internal jugular vein
- Vagus nerve
- Hypoglossal nerve
- Sympathetic trunk

Muscles of prevertebral region

- Scalenus anterior
- Scalenus medius
- Scalenus posterior
- Longus colli

Self-study

- Origin, course, parts, relations, branches and termination of internal carotid & vertebral arteries
- Formation, course, relations and tributaries of internal jugular & vertebral veins
- Origin, course, relations and branches of glossopharyngeal, vagus, accessory, hypoglossal and phrenic nerves
- Sympathetic trunk and its ganglia
- Formation and branches of cervical plexus
- Attachments, nerve supply and actions of
 - Scalenus anterior
 - Scalenus medius
 - Scalenus posterior
 - Longus colli
- Boundaries & contents of
 - Vertebral triangle
 - Scalene triangle
- Lymph nodes and lymph vessels of head and neck

Session IX - Deep Dissection of Face and Parotid Region

Dissection

- Risorius
- Facial artery
- Masseter
- Parotid salivary gland
- Parotid duct
- Accessory parotid gland

Branches of facial nerve

- Temporal
- Zygomatic
- Buccal
- Marginal mandibular
- Cervical

Branches of trigeminal nerve

- Zygomatico-facial nerve
- Infraorbital nerve
- Buccal nerve
- Mental nerve
- Auriculotemporal nerve
- Superficial temporal vessels
- Anterior and posterior divisions of retromandibular vein
- Posterior auricular vein
- Buccinator
- Trunk of facial nerve
- Posterior auricular branch of facial nerve

Self-study

- Functional components, nuclei of origin, course, relations, distribution and applied anatomy of facial nerve
- Morphology, position, relations, nerve supply and applied anatomy of parotid salivary gland
- Origin, course, relations and branches of superficial temporal artery
- Formation, relations, tributaries and termination of retromandibular vein

Total / partial removal of parotid gland

- Trunk of facial nerve
- Exterior carotid artery
- Trunk of retromandibular vein

Session X - Eyelids and Orbit

Dissection

- Palpebral part of orbicularis oculi
- Palpebral fascia
- Lacrimal gland
- Lacrimal papillae
- Medial palpebral ligament
- Nasolacrimal duct

Orbit

- Bones
 - Orbital part of frontal bone
 - Superior orbital fissure
 - Optic canal
- Sinuses
 - Frontal air sinus
 - Ethmoidal air sinuses
- Nerves
 - Trochlear nerve
 - Frontal nerve
 - Lacrimal nerve
 - Oculomotor nerve - superior division
 - Optic nerve
 - Anterior and posterior ethmoidal nerves
 - Nasociliary nerve
 - Abducent nerve
 - Oculomotor nerve - inferior division
 - Ciliary ganglion
 - Zygomatic nerve
 - Infraorbital nerve
- Vessels
 - Ophthalmic artery
 - Superior ophthalmic vein
 - Inferior ophthalmic vein

- Muscles
 - Levator palpebrae superioris
 - Superior rectus
 - Superior oblique
 - Medial rectus
 - Lateral rectus
 - Inferior rectus
 - Inferior oblique

Self-study

- Bones forming the orbital margin and orbital walls
- Attachments, nerve supply and actions of the following muscles:
 - Levator palpebrae superioris
 - Superior rectus
 - Inferior rectus
 - Medial rectus
 - Lateral rectus
 - Superior oblique
 - Inferior oblique
- Origin, course, relations, distribution and applied anatomy of
 - Oculomotor nerve
 - Trochlear nerve
 - Abducent nerve
 - Ophthalmic division of trigeminal nerve
- Origin, course, relations, branches and distribution of ophthalmic artery

Session XI - The Temporal and Infratemporal Regions

Dissection

1. Removal of zygomatic arch

- Masseter
- Nerves and vessels to masseter

2. Division of coronoid process

- Temporalis
- Buccal nerve (branch of trigeminal)
- Deep temporal vessels and nerves
- Zygomaticotemporal nerve

3. Oblique cut between ramus and Body of mandible

4. Division of neck of mandible

5. Removal of ramus of mandible

- Pterygoid venous plexus
- Lateral pterygoid muscle
- Maxillary artery and its branches
- Inferior alveolar nerve and vessels
- Middle meningeal artery
- Medial pterygoid muscle
- Mandibular nerve and its branches
- Nerve to lateral pterygoid muscle
- Nerve to medial pterygoid muscle
- Auriculotemporal nerve (2 roots encircling middle meningeal artery)
- Lingual nerve & chorda tympani nerve
- Otic ganglion
- Tensor veli palatini muscle
- Capsule & articular disc of temporo-mandibular joint

Self-study

- Boundaries, contents and communications of
 - Temporal fossa
 - Infratemporal fossa
- Attachments, nerve supply and actions of muscles of mastication
 - Masseter
 - Temporalis
 - Lateral pterygoid
 - Medial pterygoid
- Type, relations, movements and applied anatomy of temporomandibular joint
- Origin, course, parts, relations and branches of maxillary artery
- Origin, course, relations and branches of mandibular nerve

Session XII - The Submandibular Region

Dissection

- Submandibular salivary gland
- Submental vessels
- Mylohyoid nerve
- Anterior and posterior bellies of digastric
- Mylohyoid muscle
- Hyoglossus muscle-superficial and deep relations
- Hypoglossal nerve
- Lingual nerve
- Submandibular ganglion
- Submandibular duct
- Lingual artery
- Lingual vein
- Glossopharyngeal nerve
- Superior constrictor
- Middle constrictor
- Hyoid bone

Styloid apparatus

- Styloglossus muscle
- Stylopharyngeus muscle
- Stylohyoid muscle
- Stylohyoid ligament
- Stylomandibular ligament

Self-study

- Morphology, relations, nerve supply and applied anatomy of submandibular salivary gland
- Attachments, nerve supply and actions of mylohyoid, styloglossus, hyoglossus, geniohyoid, genioglossus muscles
- Origin, course, relations and distribution of facial artery, lingual artery, lingual nerve, glossopharyngeal nerve and hypoglossal nerve

Session XIII - The Oral Cavity and the Pharynx

Removal of larynx and/ hemisection of head, face and neck

Oral cavity

- Vestibule of mouth
- Floor of mouth
- Roof of mouth
- Isthmus of fauces
- Palatine tonsils
- Waldeyer's internal ring of lymphatic tissue
- Palatoglossal arch
- Palatopharyngeal arch

Pharynx

- Nasopharynx
- Oropharynx
- Laryngopharynx
- Buccopharyngeal fascia
- Pharyngobasilar fascia
- Superior, middle, inferior constrictors
- Opening of auditory tube
- Median and lateral glosso-epiglottic folds
- Vallecula epiglotti
- Inlet of larynx and its boundaries
- Piriform fossae

Tongue

- Dorsum of tongue
- Sulcus terminalis
- Circumvallate papillae
- Foramen caecum
- Frenulum linguae
- Sublingual papillae
- Genioglossus muscle
- Lingual tonsil

Self-study

- Boundaries, communications, blood supply, functions, interior and applied anatomy of nasopharynx, oropharynx and laryngopharynx
- Anatomical mechanisms involved in swallowing (deglutition)
- Morphology, internal structure, blood supply, nerve supply, lymphatic drainage, development and applied anatomy of tongue (also intrinsic & extrinsic muscles)
- Morphology, blood supply, lymphatic drainage, development and applied anatomy of palatine tonsils
- Extent, course, communications, parts, dimension, functions, applied anatomy of auditory tube
- Pharyngeal wall-
 - Constrictor muscles and their relations
 - Superior constrictor
 - Middle constrictor
 - Inferior constrictor
 - Longitudinal muscles
 - Palatopharyngeus
 - Stylopharyngeus
 - Salpingopharyngeus

Session XIV - The nasal cavity

Nasal septum

- Bones forming- vomer and ethmoid

Lateral wall of nose

- Superior concha
- Middle concha
- Inferior concha
- Sphenoethmoidal recess and opening of sphenoidal air sinus
- Superior meatus and opening of posterior ethmoidal air cells
- Middle meatus
- Bulla ethmoidalis
- Hiatus semilunaris
- Frontonasal duct
- Openings of maxillary air sinus, anterior & middle ethmoidal air cells and frontal air sinus

- Inferior meatus and opening of nasolacrimal duct
- Vestibule of nose
- Atrium and agger nasi
- Limen nasi
- Opening of auditory tube

Self-study

- Morphology, blood supply, lymphatic drainage, nerve supply and applied anatomy of
 - Lateral wall of nasal cavity
 - Medial wall (septum) of nasal cavity
- Little's area and its importance
- Location, extent, relations, development, functions and applied anatomy of paranasal air sinuses (maxillary air sinus in particular)
- Origin, course and termination of olfactory nerve (Olfactory pathway)

Session XV - The Larynx

Dissection

- Cricothyroid muscle
- Cricothyroid ligament
- Conus elasticus
- Thyrohyoid muscle
- Thyrohyoid membrane
- Epiglottis
- Aryepiglottic folds (inlet of larynx)
- Arytenoid cartilages
- Piriform fossae
- Thyroepiglottic and hyoepiglottic ligaments
- True vocal folds
- Vestibular folds

- Ventricle of larynx
- Posterior cricoarytenoid muscle
- Lateral cricoarytenoid muscle

Self-study

- Morphology, extent, parts, internal structure, blood supply, lymphatic drainage, nerve supply, movements, development and applied anatomy of larynx
- Anatomical mechanisms involved in
 - Speech (phonation)
 - Respiration
- Role of larynx in deglutition

Session XVI - The eye and the organs of hearing and equilibrium; Joints and contents of vertebral column

Eyeball

- Sclera
- Cornea
- Choroid
- Iris
- Lens
- Vitreous body
- Retina
- Ora serrata

External ear

- Auricle
- External acoustic meatus
- Tympanic membrane

Middle ear

- Tegmen tympani
- Ossicles
 - Malleus
 - Incus
 - Stapes

Internal ear

- Cochlea
- Semicircular canals

Contents of vertebral canal

- Ligamenta flava
- Spinal dura mater
- Spinal medulla
- Spinal part of accessory nerve
- Dens of axis
- Apical ligament of dens

Self-study

- Boundaries, contents and functions of middle ear
- Location, extent, parts, internal structure and functions of external acoustic meatus
- Origin, course & termination of
 - Vestibulo-cochlear nerve (Auditory pathway)
 - Optic nerve (Visual pathway)
- Mechanism of hearing and vision
- Contents of vertebral canal
- Internal structure & coverings of spinal medulla
- Type, bones forming, movements and muscles producing movements of the following joints
 - Atlanto-occipital
 - Atlanto-axial (median and lateral)
 - Cervical intervertebral