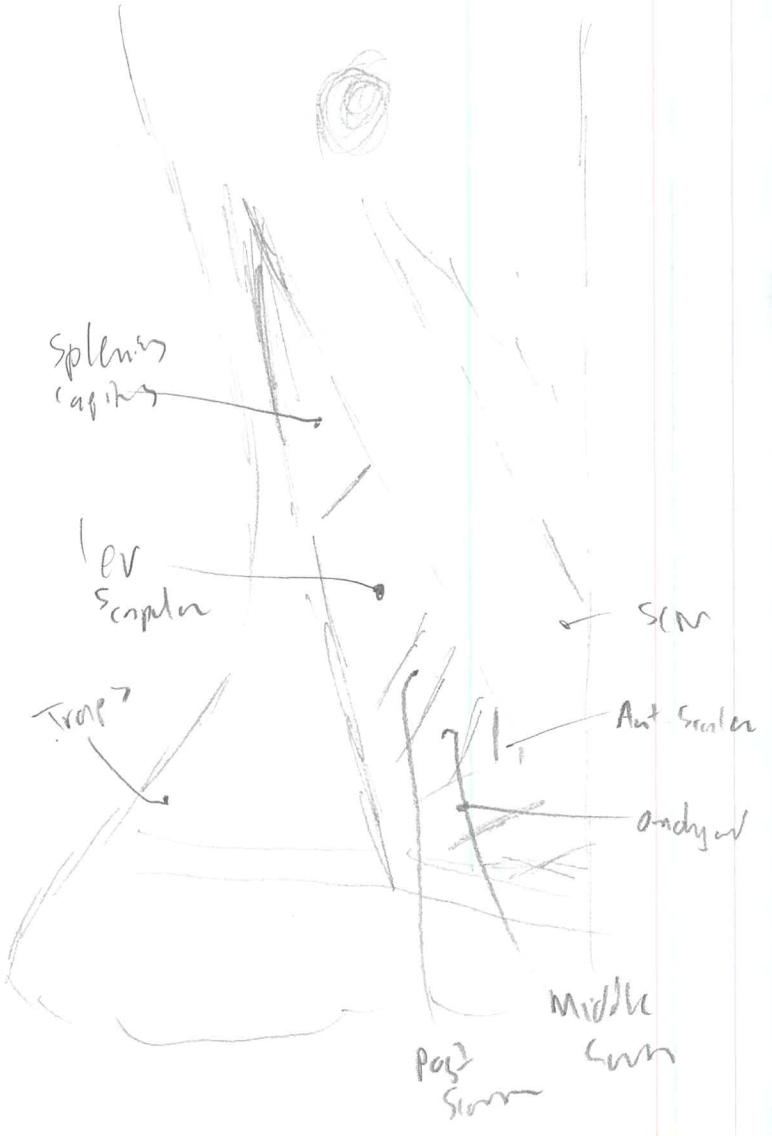
1. A Post belly omohyd
B Ant scalenus
C Anterior belly digastric
D ~~External~~ Common carotid / Vagus Nerve
E Splenius capitis
F Submental / Submandibular / Masseter

2A Sternothyoid
B Mylohyoid
C Thyrohyoid
D SCM → Spinal Accessory
E Stylohyoid
F Styloid ligament (hyoid bone)

3. A Transverse foramen
B ~~Anterior tubercle~~ → Posterior tubercle
C dens
D ~~Axis~~ Superior Articular Facets
E Spinous process
F ~~Scalenus Medius~~ Impression of Subclavian Artery

F.2: Subclavian Artery



Prevertebral

A: C3-6
M: 2-7
P: 5-7

L

M

Rectus capitis anterior

Rectus capitis lateralis

TP of Atlas

C1

Longus capitis

C2

C3

C4

C5

C6

Longus colli

Scalenus Anterior

C7

T1

T2

T3

R1

R2

Cervical plexus

CN XII canal

CN XII

C1

LO

C2

GA

C3

Transverse cervical

C4

Supraclavicular

C5

Brachial Plexus

Phrenic

Superior root of Ansa cervicalis

Geniohyoid

Thyrohyoid

Sup. omohyoid

inf root

Sternohyoid

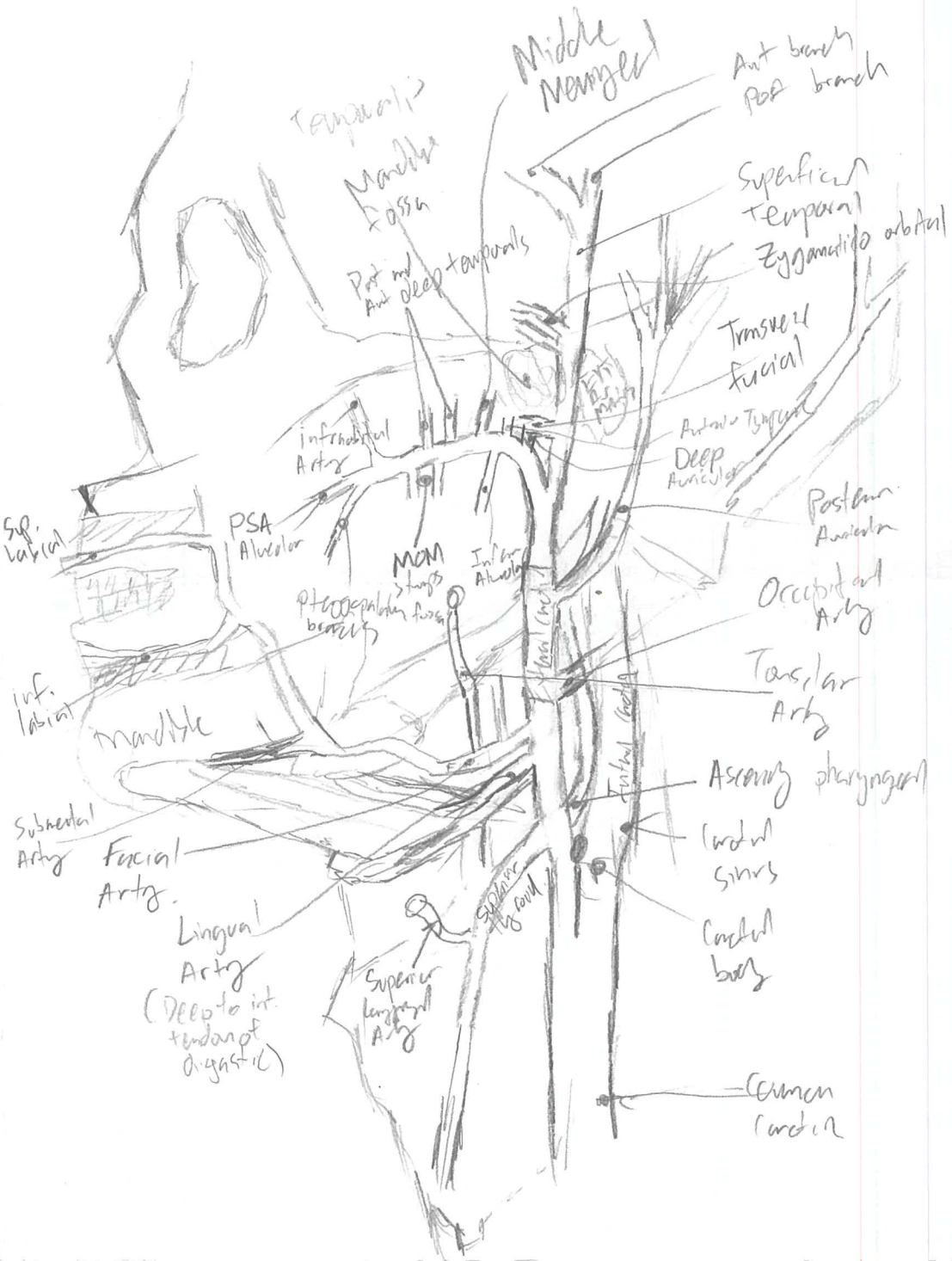
Sternothyroid

inf omohyoid

Anterior view of neck

SCM Remand

Internal and external carotid arteries and branches



Internal carotid artery:

Supertrochlear (medial to eyeball)

Supraorbital (lateral eyeball)

Ophthalmic

Cavernous Venous Sinus

Internal Carotid

Maxillary Artery

Superficial temporal

Middle Meningeal

Deep Auricular

Anterior Tympanic

Inferior Alveolar

Posterior deep temporal

Muscles of Mastication Branches

Anterior deep temporal

Posterior superior Alveolar

Infraorbital

Pterygopalatine fossa branches

Neck arteries

Aorta

Vertebral Artery

Basilar Artery

Costocervical trunk

Thyrocervical trunk

Internal Thoracic

Vertebral Artery

Brachiocephalic Trunk

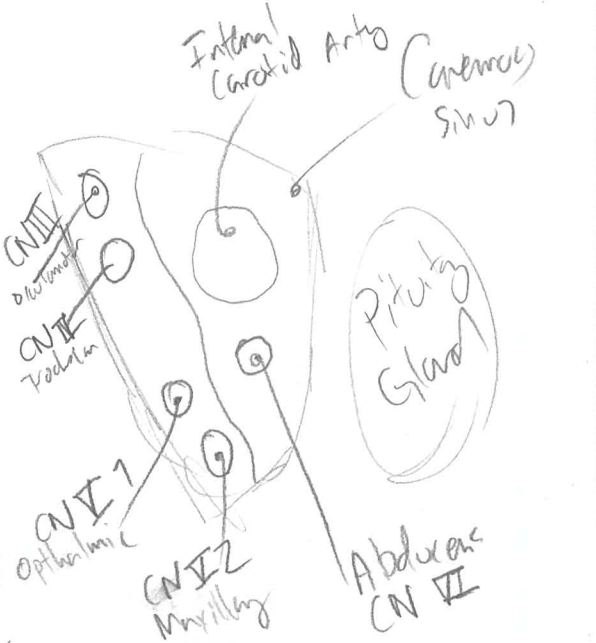
Right Common Carotid artery

Right External Carotid Artery

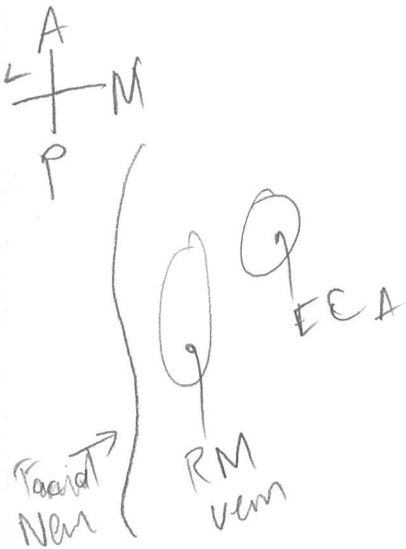
Right Internal Carotid Artery

Aortic Arch

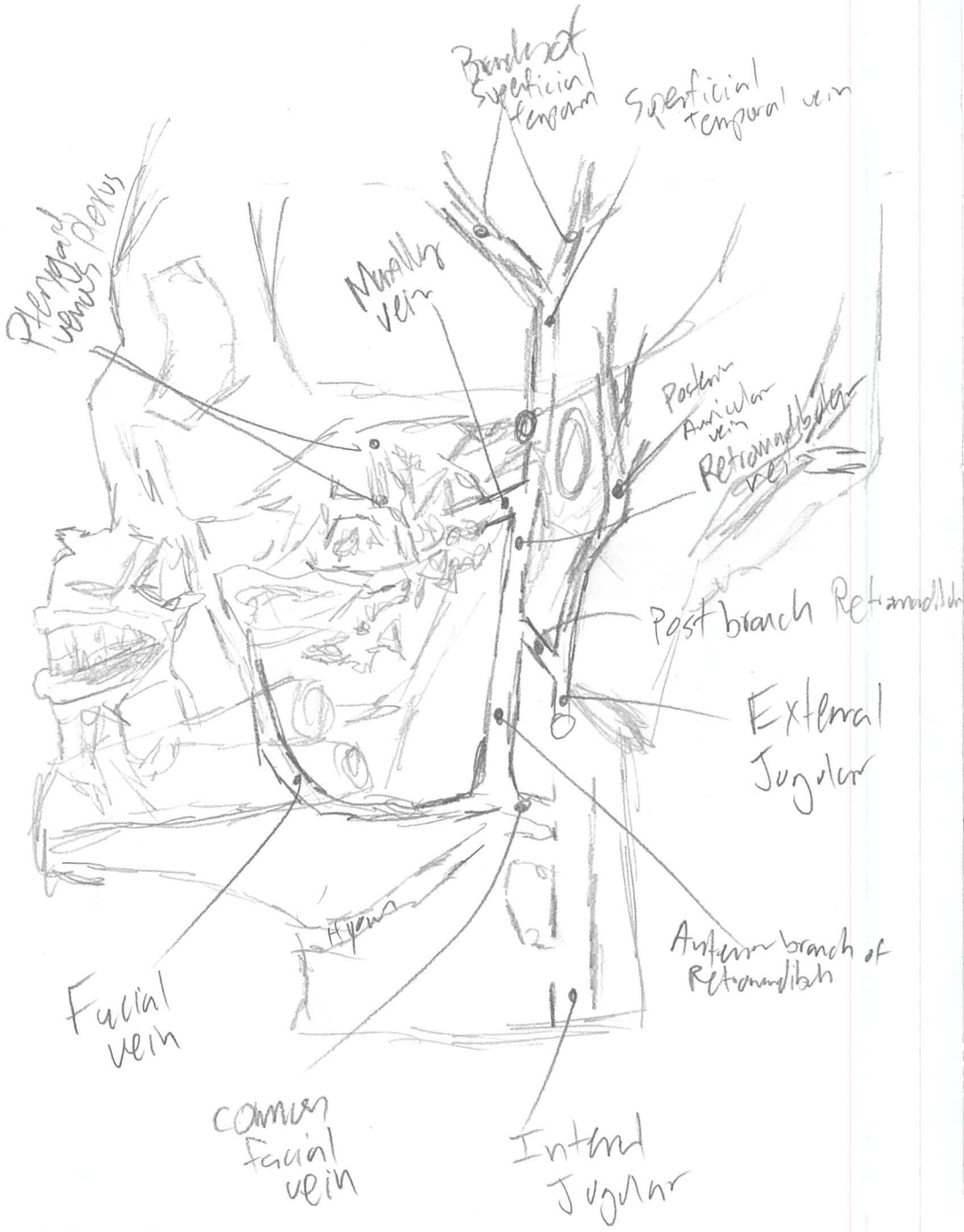
Cavernous sinus contents



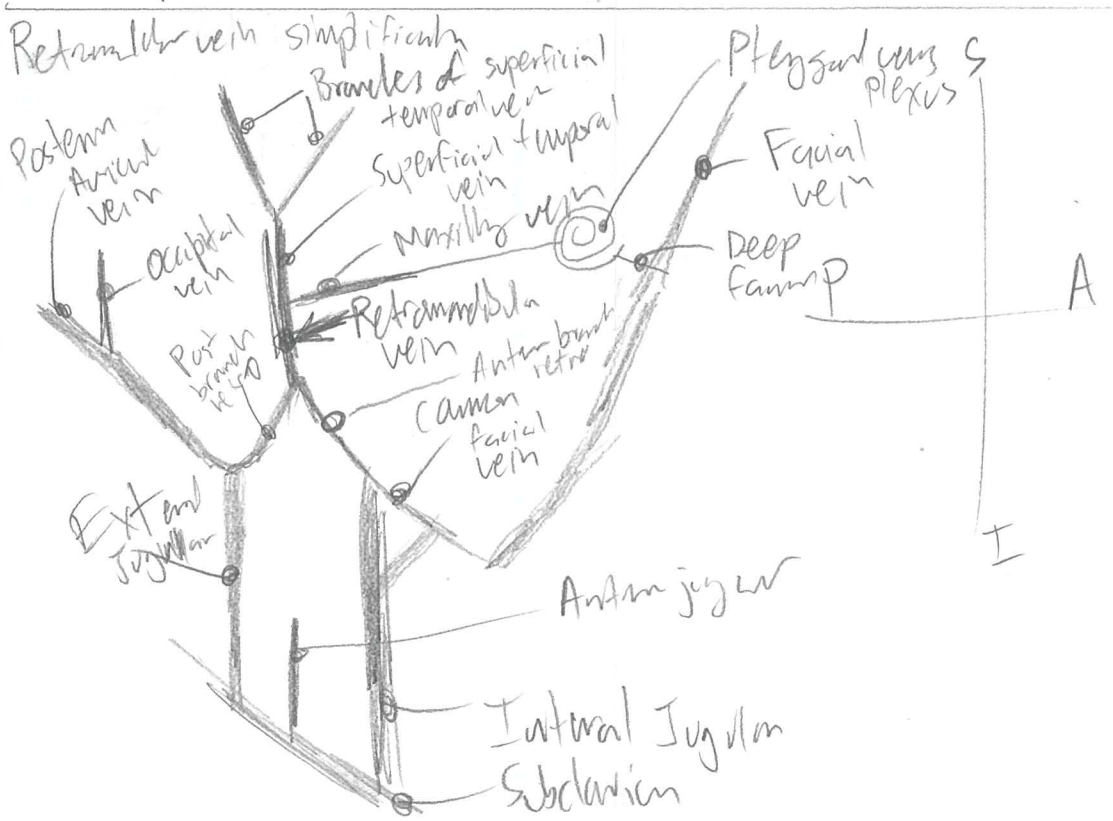
Parotid gland

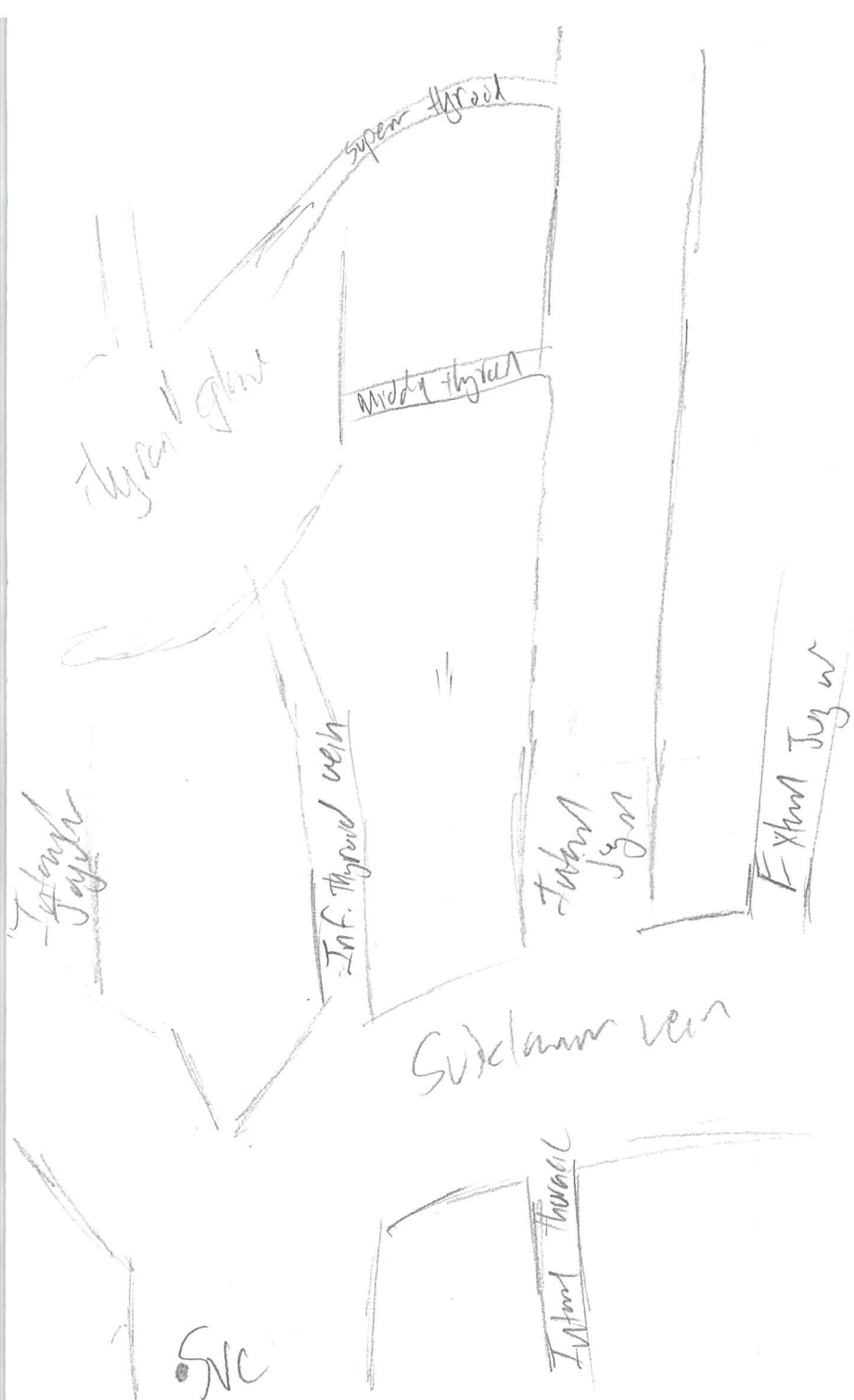


Facial vein sumy.

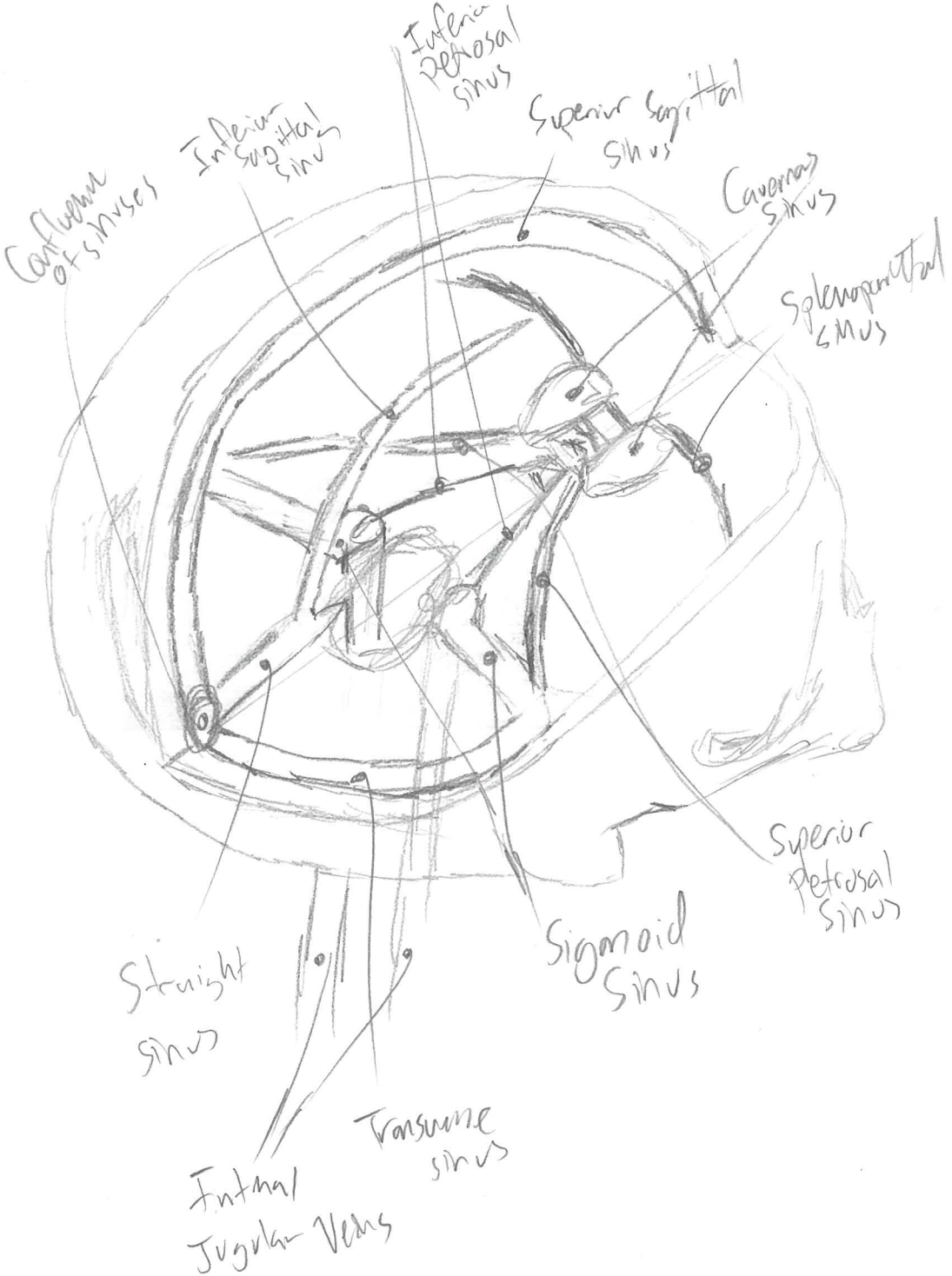


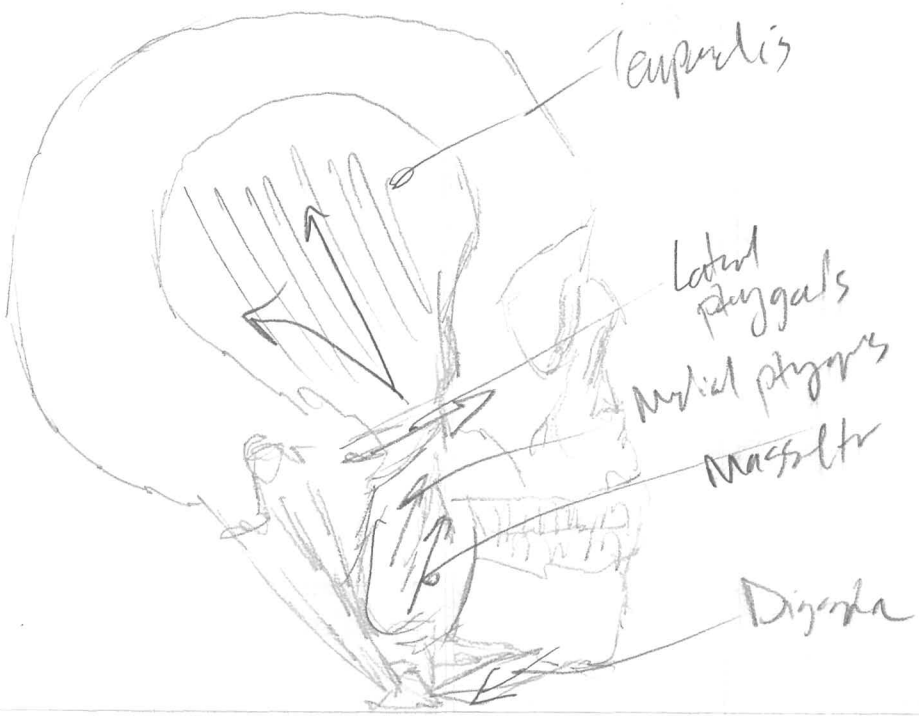
Retromandibular vein simplified



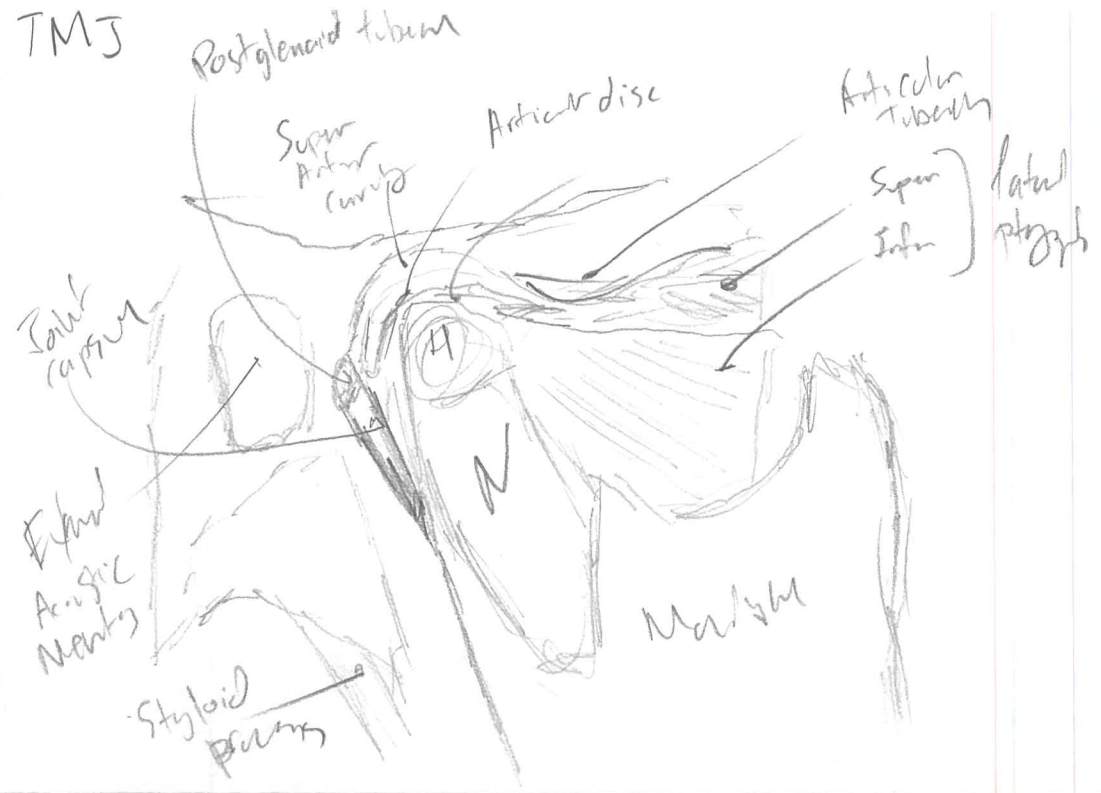


Intracranial venous sinuses.

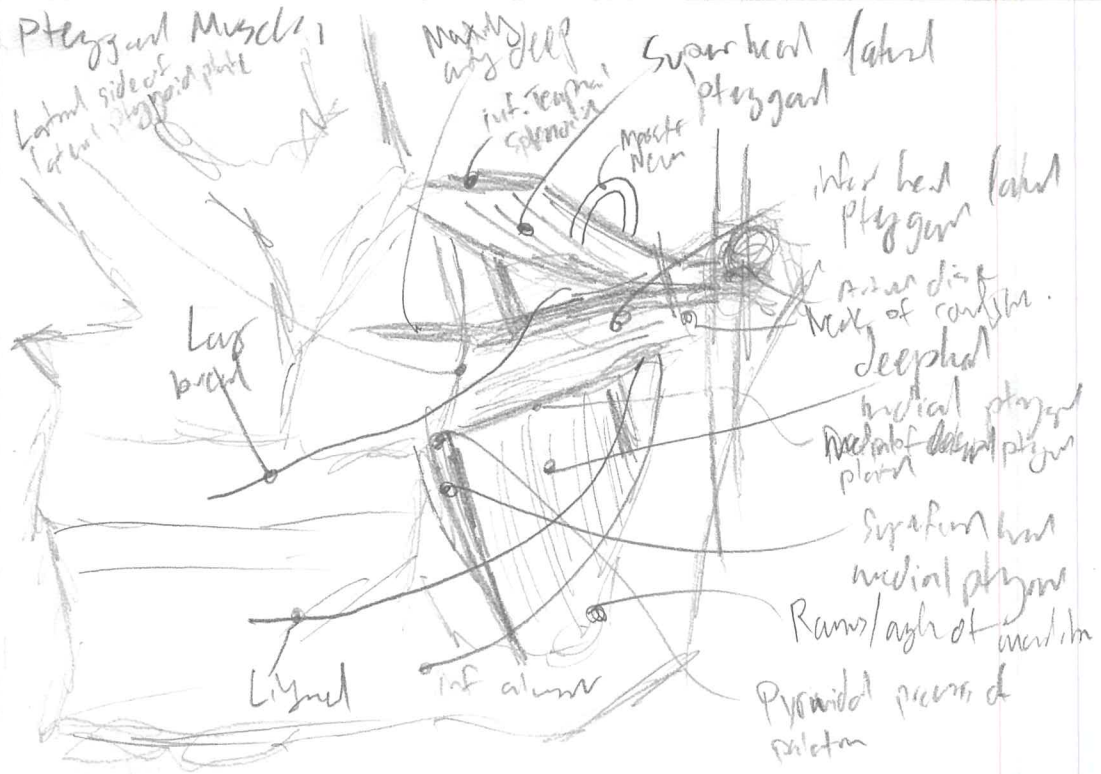


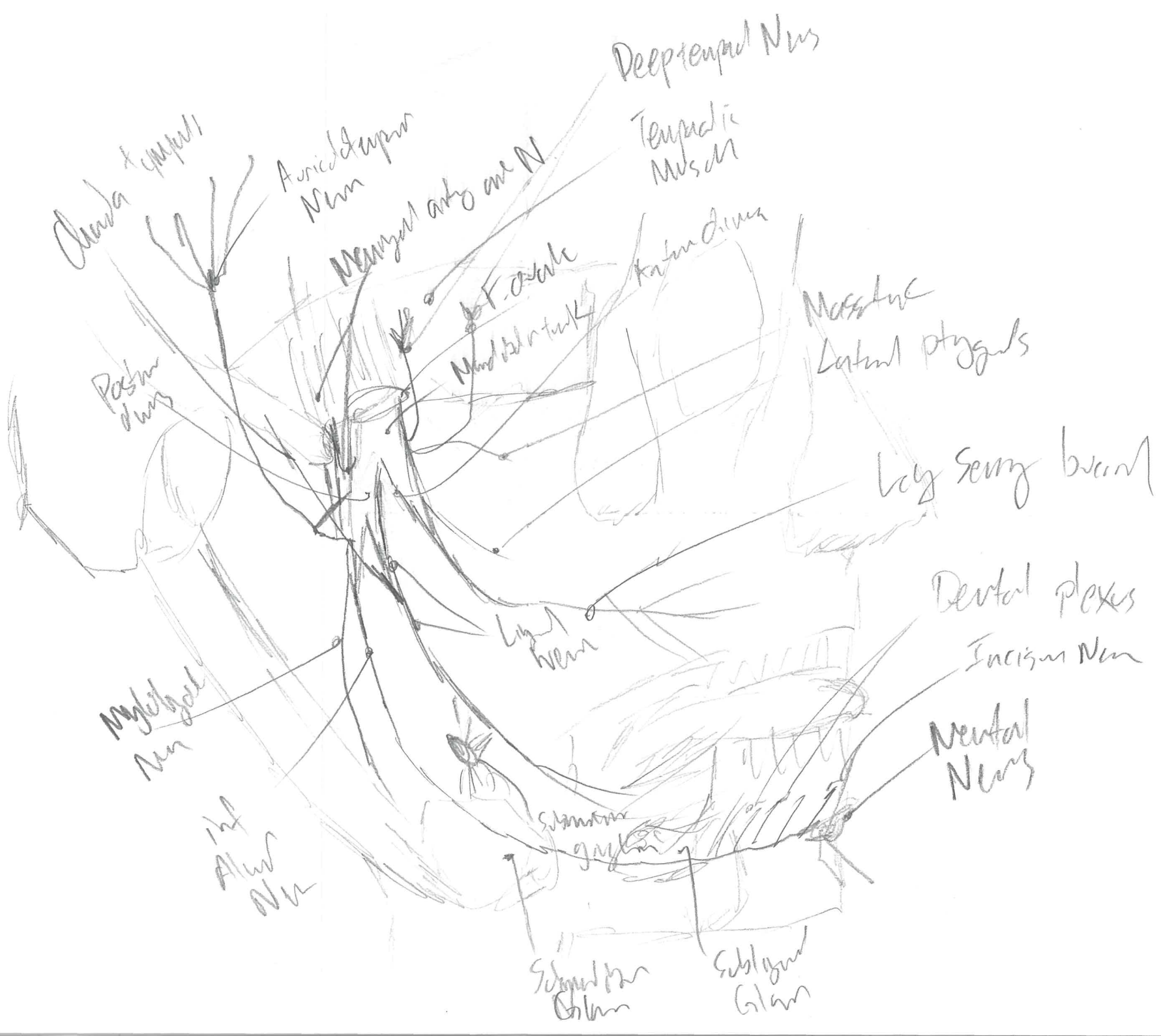

Temporalis
Lateral pterygoids
Medial pterygoids
Masseter
Digastric

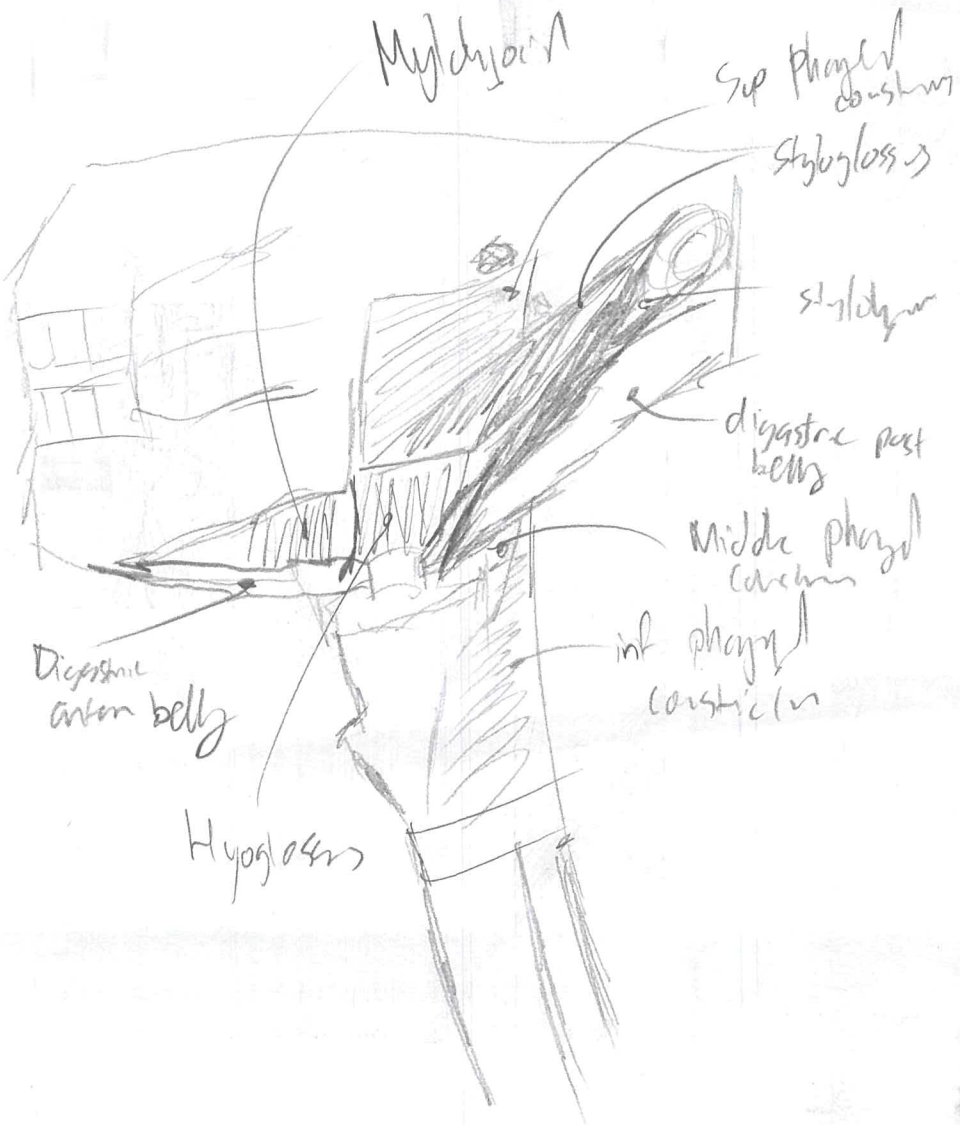
TMJ


Postglenoid tubercle
Articular disc
Articular Tubercle
Superior
Inferior
lateral pterygoids
Tympanic
Auriculotemporal Nerve
Styloid process
Mandible


Masseter
Buccal artery
Pterygoid canal
Maxillary
Middle temporal
Inferior alveolar
Lingual


Pterygoid Muscles
Lateral side of lateral pterygoid plate
Maxillary deep
Inf. Temporal Splenius
Masseter Nerve
Superior head lateral pterygoid
Inferior head lateral pterygoid
Articular disc of temporomandibular joint
Deep head
Buccal
Lingual
Inf alveolar
Pyramidal process of palatine


Deep temporal Nerv
Auriculotemporal Nerv
Masseteric
Lateral pterygoids
Dental plexus
Incisive Nerv
Mental Nerv



ANAT3004 – Cranial and Cervical Anatomy – Week 4, 2024

Neck

PRACTICAL SUMMARY

What you will cover in this practical:

- Identify the bones of the neck and revise landmarks of the skull associated with muscles of the neck
- Locate the triangles of the neck and identify the muscles, attachments and related features
- Identify the prevertebral muscles

The **Anatomy Video Resource** that is offered on the ANAT3004/3904 site on Canvas accompanies this Practical Workbook. Use the Practical Resources available, as well as your lecture notes, the Wilson Museum (online) and your anatomy textbooks/atlas to locate and identify relevant structures. Please complete the following worksheet.

ACTIVITY 1 – BONES OF THE NECK

Identify the following cervical vertebrae, and identify which of the listed features are present on each:

Vertebrae	Features
Atlas (C1)	Body Vertebral foramen Spinous process Lamina Pedicle Transverse process Transverse foramen Dens Anterior tubercle Posterior tubercle Superior articular facet Inferior articular facet Anterior articular facet Groove for vertebral artery
Axis (C2)	
Typical (C3-C7)	

- What is a definitive feature of cervical vertebrae?
  Transverse foramen

- Briefly describe the key features that are used to distinguish between the atlas (C1) and axis (C2)
  Atlas has no body and no spinous process, large articular facets and two arches
  axis has a "body of dens" anteriorly

C1-6, excludes 7.

- Which cervical vertebrae does the vertebral artery travel through?

Identify the first and second rib.

- What do you notice about their shape and size?

atypical, diff to other ribs.

On rib 1, identify:
- the grooves for the subclavian artery & vein
- the sites of attachment of scalenus anterior and scalenus medius

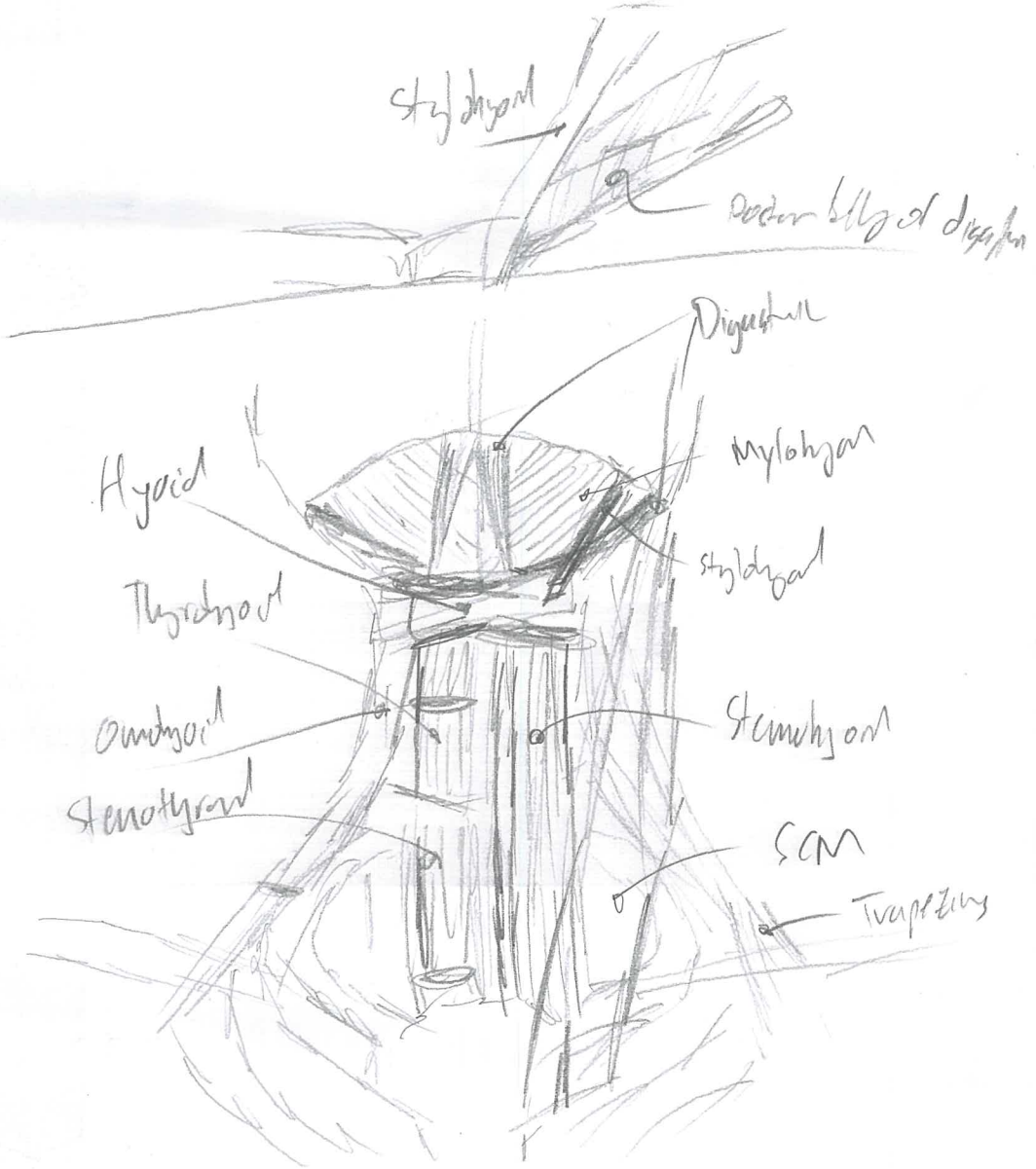
On rib 2, identify:
- the site of attachment of scalenus posterior

On the hyoid bone, identify:
- body
- greater horn
- lesser horn

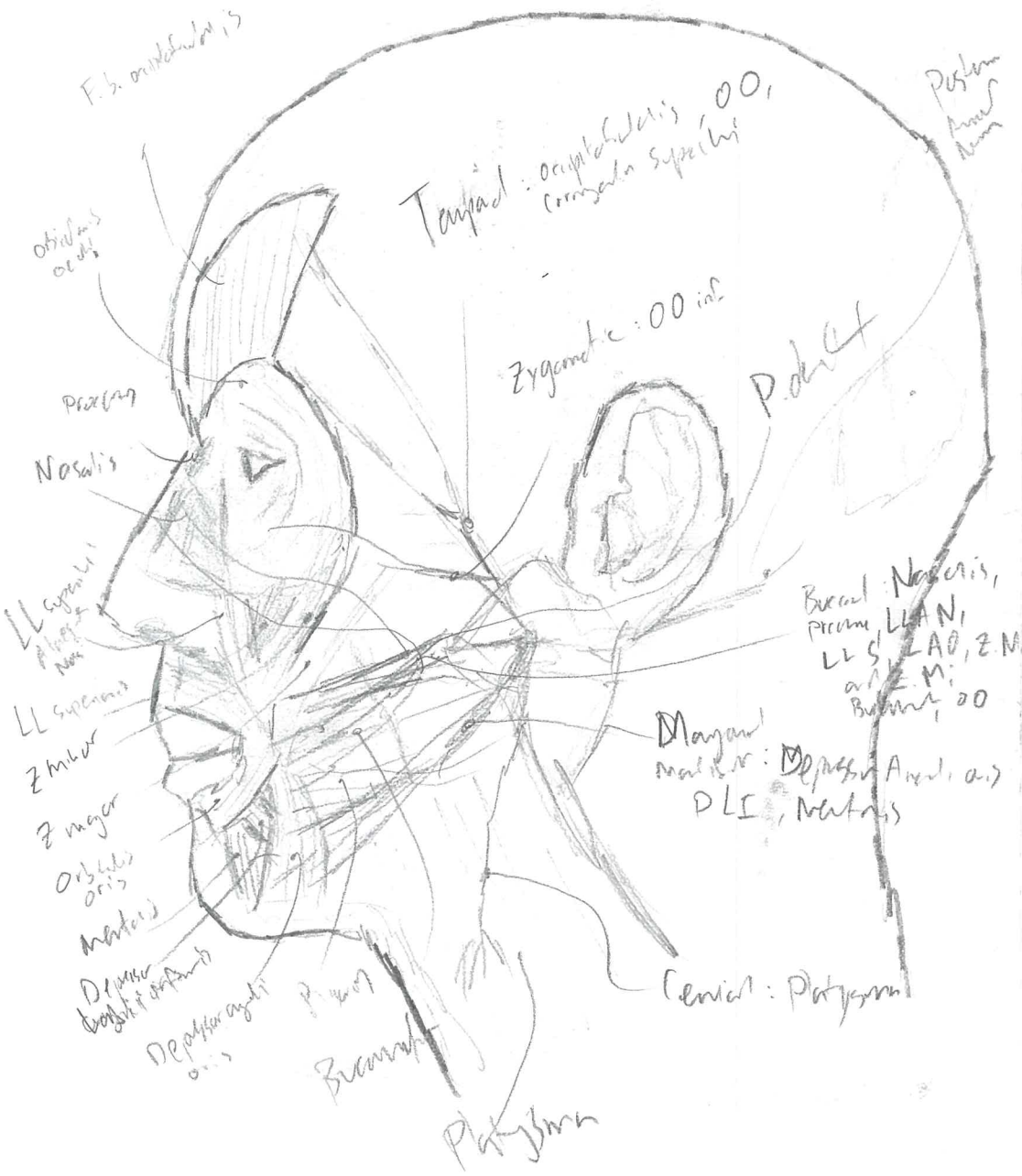
ACTIVITY 2 – TRIANGLES OF THE NECK

Locate and describe the features that form the boundaries of each of the triangles of the neck, and list some of the distinguishing features (e.g. structures contained within in, structures that form its roof/floor) associated with each region:

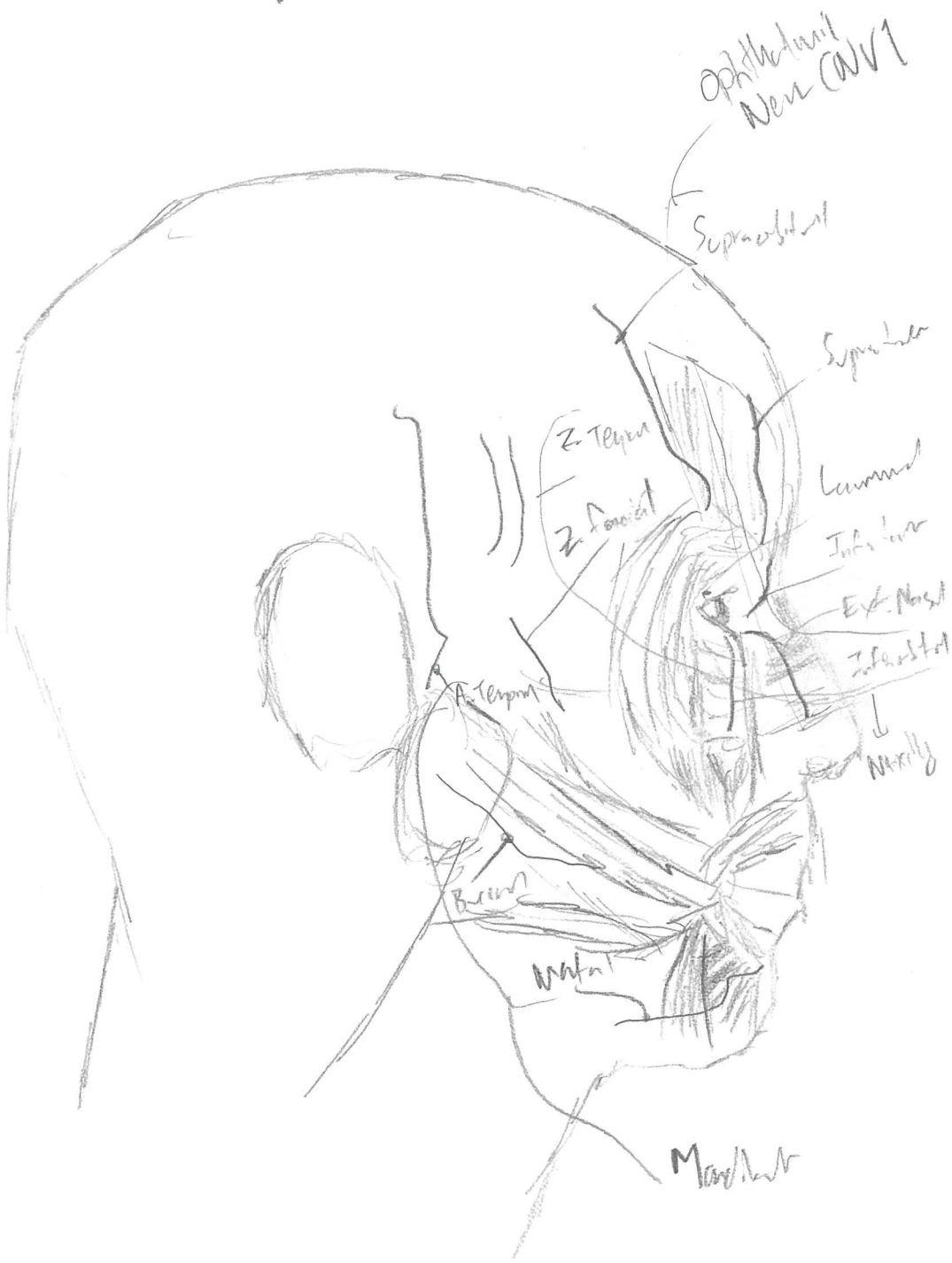
Triangle	Boundaries	Features
Anterior	SCM, [illegible] midline	[redacted]
Digastric/Submandibular	Mandible, digastric belly	Submandibular gland
Carotid	post belly of digastric sup of omohyoid, SCM	NVBofMedC
Muscular	SCM, midline, ant belly of digastric, sup belly omo	strap muscles → (infrahyoid) + thyroid gland.
Submental	Ant belly of digastric	suprahyoid muscles
Posterior	SCM, traps, clavicle	[redacted]
Occipital	Traps, SCM, inf belly of omohyoid	Accessory nerve
Supraclavicular	inf belly omohyoid clavicle, SCM.	



facial Muscles + facial Nerve branches



facial muscles + Maxilly branches



ACTIVITY 1 – MUSCLES OF FACIAL EXPRESSION

a. Identify the following Muscles of Facial Expression.

b. Draw a line from each muscle to the description of its function(s) in the second column.

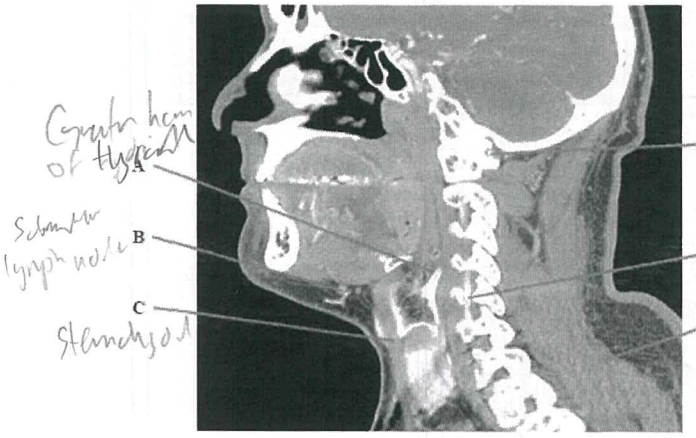
MUSCLE*	FUNCTION
Frontal belly – Occipitofrontalis	Elevates upper lip, dilates the nostrils
Corrugator supercilii	Lowers corners of mouth and lower lip
Orbicularis oculi	Compresses cheeks against the teeth. Used in blowing and during chewing
Procerus	Elevates upper lip exposing maxillary teeth thereby producing facial expressions such as smiling and grimacing
Nasalis	Assists protrusion of lower lip, elevates skin of chin
Levator labii superioris alaeque nasi	Wrinkles skin between eyebrows
Zygomaticus major	Pulls upper lip backward, upward and outward
Levator anguli oris	Pulls corners of mouth laterally
Buccinator	Pulls angle of mouth inferolaterally
Platysma	Closes eyelids and assists in moving tears from the eye into the nasolacrimal duct system
Depressor anguli oris	Elevates angle of mouth
Orbicularis oris	Elevates eyebrows and skin of forehead
Risorius	Closes, protrudes and compresses lips.
Levator labii superioris	Compresses nasal cartilage Dilates & flares nostrils
Zygomaticus minor	Works with orbicularis oculi to bring eyebrows medially and inferiorly
Depressor labii inferioris	Depress and evert lower lip
Mentalis	Pull the angle of the mouth superolaterally

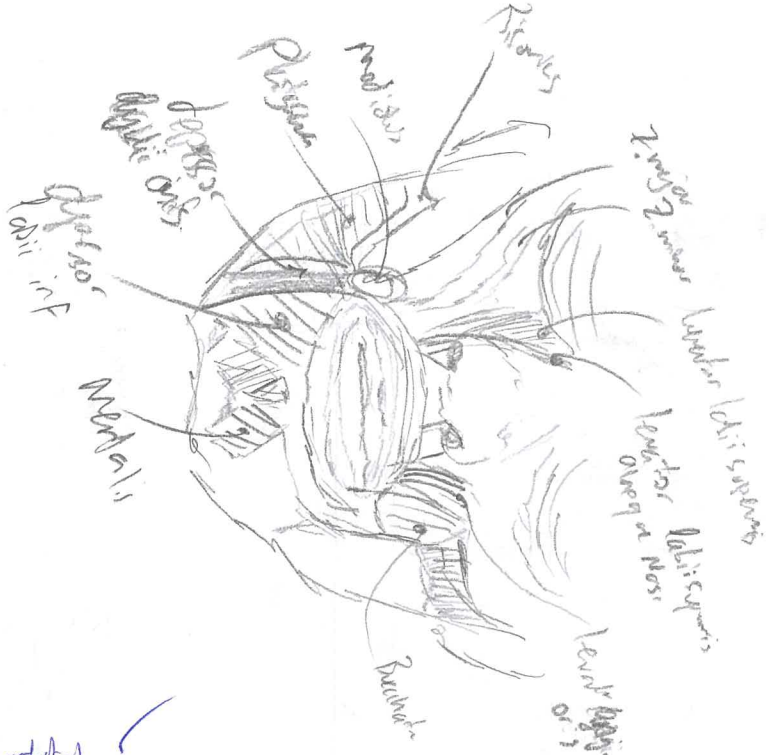
*BOTTLE 449.2121 in the Wilson Museum also shows many of these muscles

ACTIVITY 6 – THE CUTANEOUS BRANCHES OF THE DIVISIONS OF THE TRIGEMINAL NERVE (CNV)

NERVE	Identified √
Branches of V_1 - Ophthalmic division	
Supratrochlear	
Supraorbital	
Branches of V_2 – Maxillary division – Foramina only	
Zygomatico-orbital	
Zygomaticofacial	
Zygomaticotemporal	
Infraorbital	
Branches of V_3 – Mandibular division	
Deep/sensory buccal	
Auriculotemporal	
Mental (foramen only)	

ACTIVITY 7 – APPLIED ANATOMY – CT IMAGE
Identify the structures indicated.





1 A Supraorbital ✓
B Frontalis ✓
C ~~Maxillary~~ transverse facial artery/vein ✓
D ~~levator anguli oris~~ Zygomaticus minor ✗
E Medialis ✓
F Ophthalmic → Maxilla ~~AT~~ ✗
Auricular

2 A Facial Nerve Temporal branch ✓
B Posterior auricular ✓
C Procerus ✓
D Parotid duct ✓
E Depressor Anguli oris ✓
F depressor of supercilium ✓

Muscles of Facial Expression, Parotid Gland, Facial Nerve

PRACTICAL SUMMARY

What you will cover in this practical:

- Identify the main muscles of facial expression and know their functions.
- Identify the parotid gland and duct and relationships to adjacent structures.
- Appreciate the structures within the parotid gland.
- Identify the facial nerve (CNVII) at its origin, and follow its course and distribution while understanding its role in innervation of facial muscles and other structures.
- Identify the specific branches of the facial nerve including the five cutaneous branches.
- Identify the ophthalmic, maxillary and mandibular branches of the trigeminal nerve (CNV) –and appreciate their role in cutaneous innervation.

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Questions: - How to ~~differentiate~~ Zygomatic vs Buccal vs cervical
5 cutaneous branches of motor facial nerve. ✓
Posterior Auricular ✓
- How well must we identify cutaneous Trigeminal ? Variation?
- Ask about fascia. ✓
- Branches before carotid Tympani ✓

b. Identify the most complete specimen you can find of the **parotid gland** itself and then the **parotid duct** on the anterior border of the gland.
Observe that the duct crosses the superficial surface of masseter and then pierces buccinator to empty into the vestibule of oral cavity (between cheek and teeth) above the second maxillary molar. This site is often marked by a **parotid papilla.**

c. **Structures within the parotid gland.**

Identify the following structures and features and follow their courses

Layer within Parotid Gland	Structures/Features
DEEP	• The external carotid artery enters the posteromedial surface of the parotid • The external carotid divides within the gland to form the maxillary artery which emerges anteromedially • The other branch is the superficial temporal artery • The superficial temporal artery gives off the transverse facial artery and then emerges from the superior surface of the parotid • The posterior auricular artery may also arise within the parotid
INTERMEDIATE	• The superficial temporal and maxillary veins accompany the arteries into the parotid • and form the retromandibular vein • which divides into anterior and posterior branches
SUPERFICIAL	• Identify the facial nerve which divides in the parotid into cutaneous branches • Recall that it does not, however, innervate the parotid gland

ACTIVITY 4 – ORIGIN, COURSE AND BRANCHES OF THE FACIAL NERVE CNVII

a. Identify the intracranial portion of the **facial nerve** where it travels initially with the **vestibulocochlear nerve** into the **internal acoustic meatus**. See if you can find the much thinner **nervus intermedius** in between the larger nerves.

b. Describe the 2 types of nerve fibres carried by nervus intermedius.

Phrasympathetic : secretory

Sensory : taste

c. If specimens permit, identify the **geniculate ganglion** of the facial nerve where it bends vertically down the medial wall of the inner ear. Some parasympathetic fibres branch from the geniculate ganglion as the **greater petrosal nerve**. Observe this in passing if present. (It will be included in future content).

d. Recall the location of the **petrotympanic fissure** and if possible identify the **chorda tympani nerve** as it emerges. See if you can identify the chorda tympani joining the **lingual nerve** deep to the lateral pterygoid muscle.

Chorda tympani has both a special sensory function and carries parasympathetic fibres. What is the special sensory function and where does it carry the parasympathetic fibres to?

Taste to the tongue + anterior 2/3 of soft palate

Parasympathetic fibres are secretomotor, to glands

e. Identify the posterior auricular branch of the facial nerve and also small nerve branches to the posterior belly of the digastric muscle and the stylohyoid muscle if present.

f. Identify the five cutaneous branches of the facial nerve and list the muscles supplied.

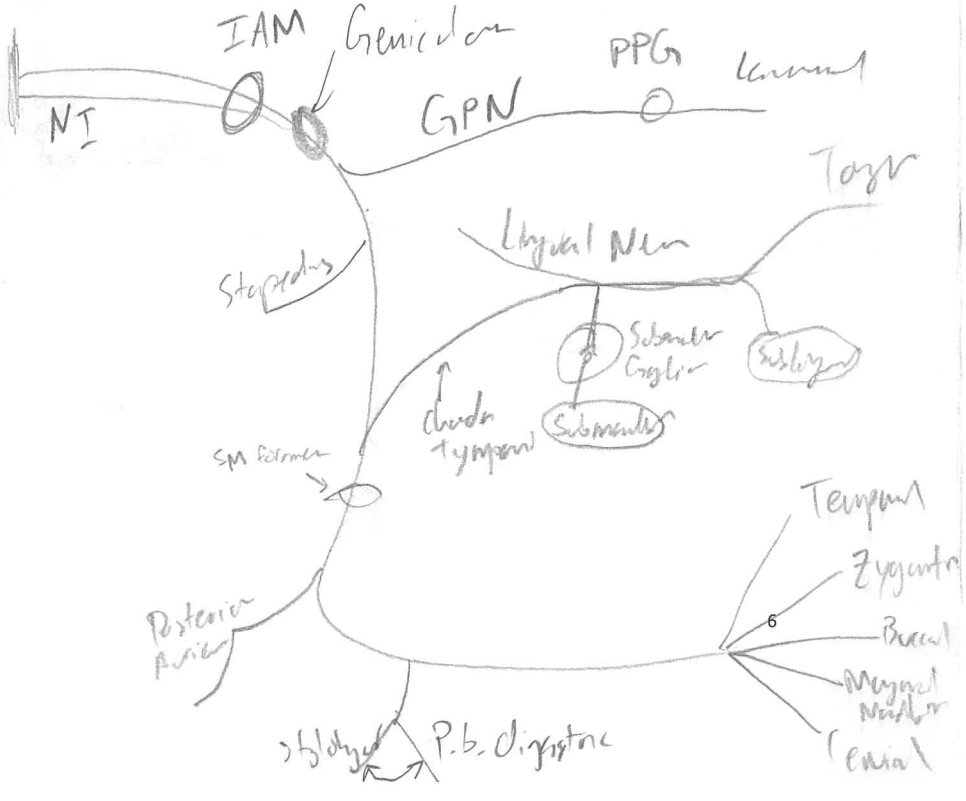
NERVE BRANCH	MUSCLES SUPPLIED
TEMPORAL	(3) Orbicularis oculi (sup Occipitofrontalis, Corrugator supercilli
ZYGOMATIC	(1) Inf orbicularis oculi
BUCCAL	(9) Nasalis, procerus, LLS, LAngli Oris, LLAN, Z Major Z minor, Risorius, Buccinator Orbicularis Oris

MARGINAL MANDIBULAR	(4) Depressor Anguli oris, Depressor labii inferioris, Mentalis, orbicularis oris
CERVICAL	(1) Platysma

ACTIVITY 5 – DRAW A SCHEMATIC

Draw your own schematic of the origin, course and branches of CNVII, the facial nerve. Include the following:

Internal acoustic meatus	Stylomastoid foramen
Nervus intermedius	Posterior auricular nerve
Nerve to stapedius	Nerve to posterior belly digastric
Geniculate ganglion	Nerve to stylohyoid
Lingual nerve	Temporal branches
Chorda tympani	Zygomatic branches
Submandibular gland	Buccal branches
Sublingual gland	Marginal mandibular branches
Tongue	Cervical branches



c. Identify the **Modiolus** at the corner of the mouth. It is palpable between finger and thumb which can help to find it.

d. Which seven muscles make up the Modiolus?

Z. major, Buccinator, platysma, risorius, Orbicularis oris, levator anguli oris, depressor anguli oris

e. See if you can find any of the 4 types of fat pads, recalling their position in relation to muscles:

The buccal fat pad – between zygomaticus major, levator anguli oris and buccinator.

The malar fat pad – just inferior to orbicularis oculi down to corner of mouth. Partly overlies buccal fat pad if present.

The infraorbital fat pad - deep to orbicularis oculi

The submental/submandibular fat pad – below the body of the mandible

ACTIVITY 2 – THE SCALP

Identify the five layers of the scalp. (Some may be difficult to locate on prosections).

Skin
Cutaneous tissue – highly vascularized superficial fascia containing loculated fat
Aponeurosis – epicranial aponeurosis or galea aponeurotica, the tendon between the occipital and frontal bellies of occipitofrantalis
Lax areolar tissue – loose fascia
Periosteum – thin fibrous material adhering to the bone surface

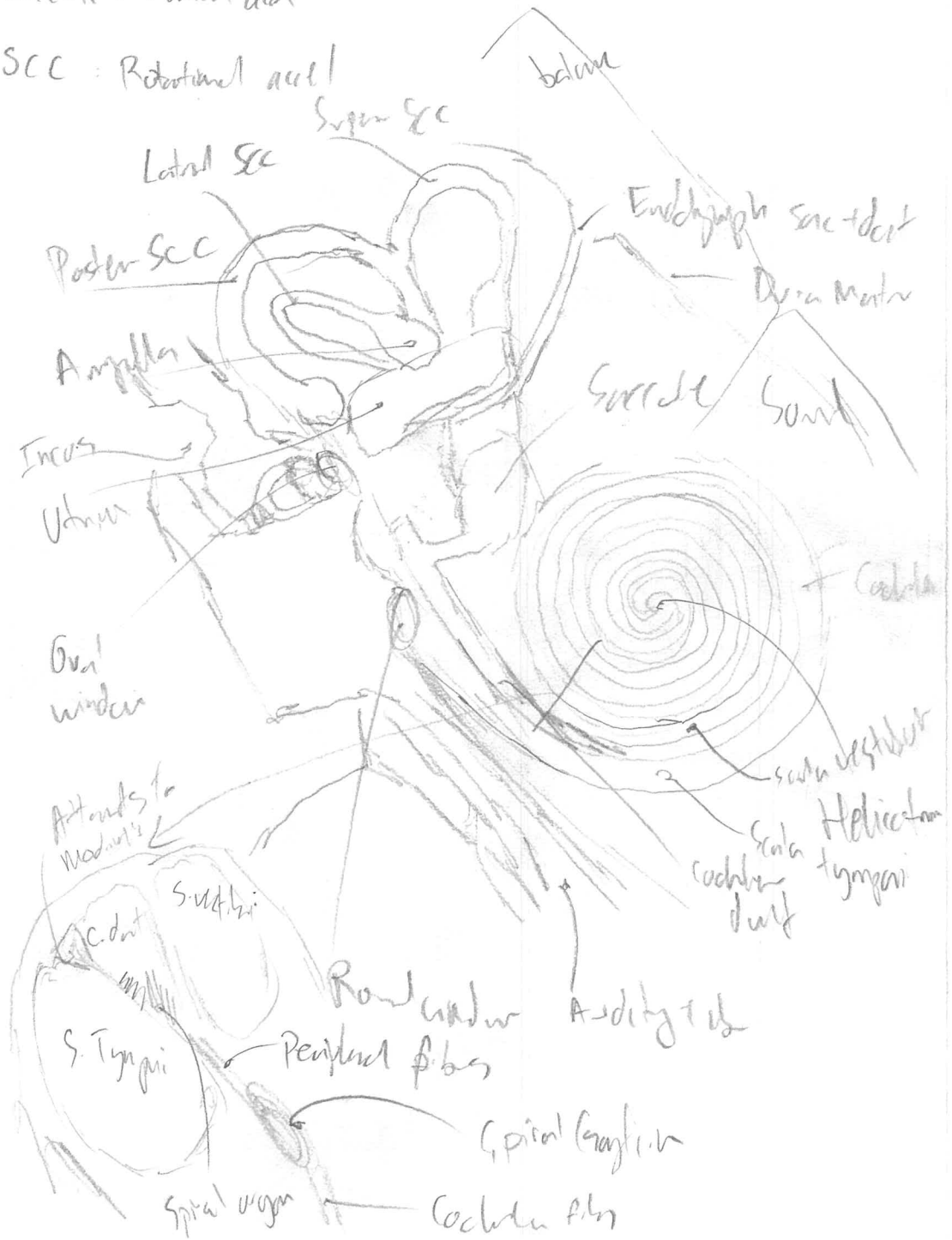
ACTIVITY 3 – PAROTID SALIVARY GLAND AND ASSOCIATED STRUCTURES

a. As specimens permit, identify any remnants of the **parotid capsule** remaining. The capsule is derived from deep cervical fascia and splits around the parotid gland. It is attached to the zygomatic arch, mandible, styloid process and tympanic plate of the skull.

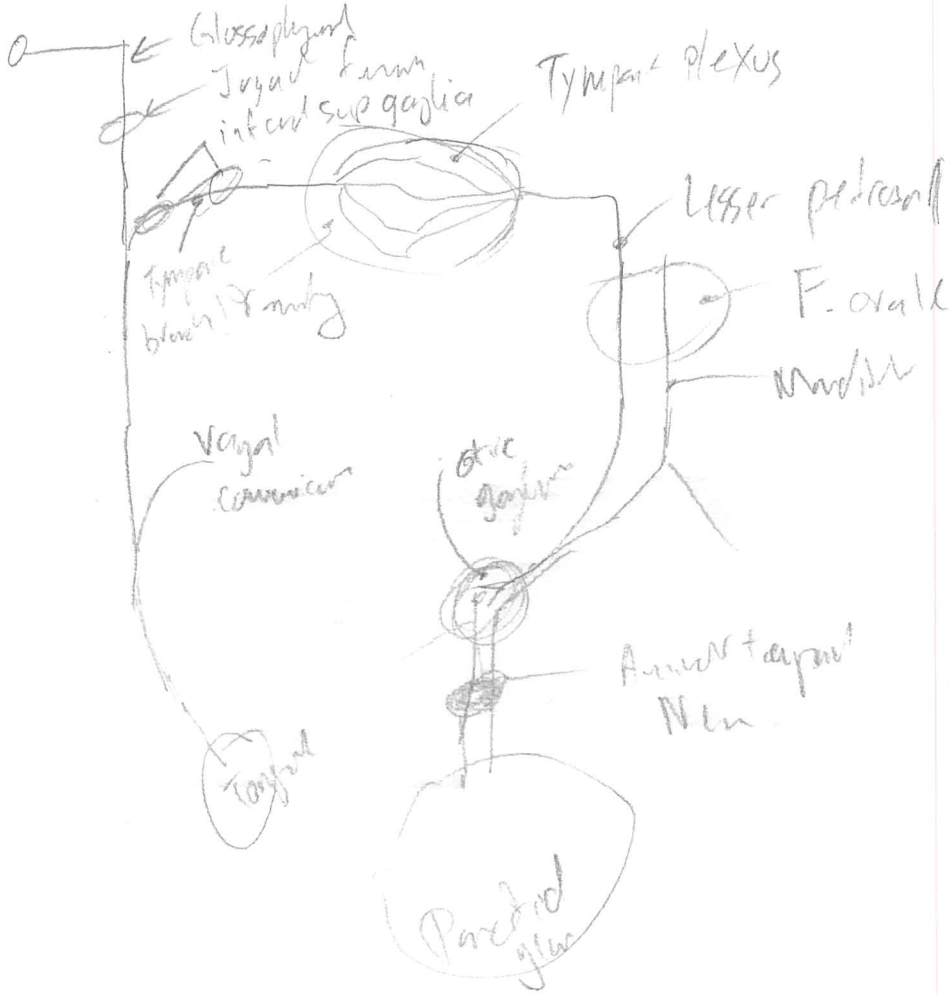
Utricle: Horizontal accel, sideways, head tilts

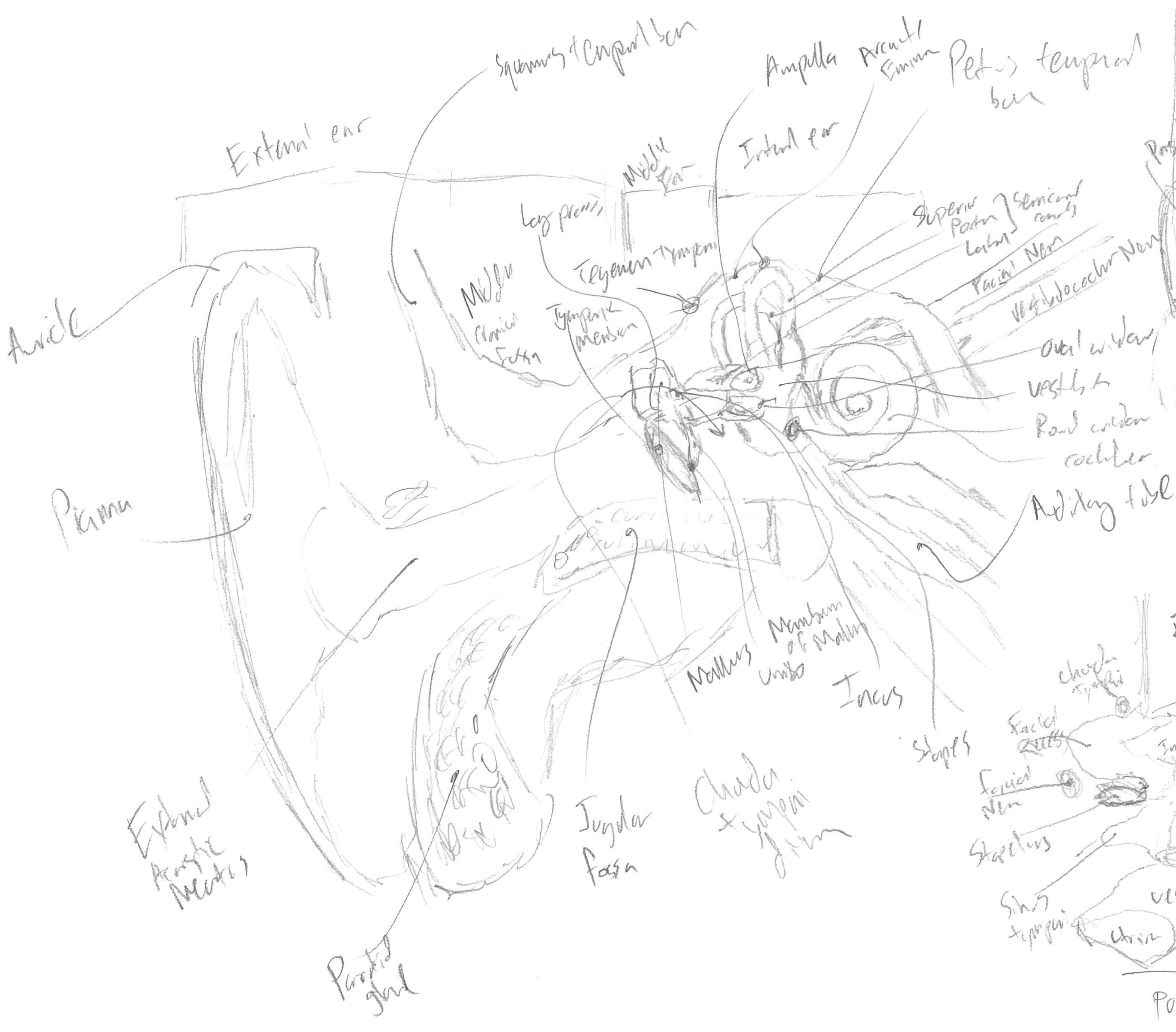
Saccule: Vertical accel

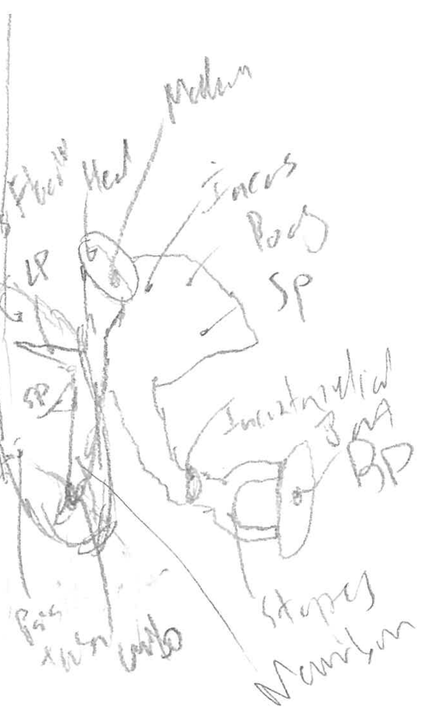
SCC: Rotational accel



Tympanic plexus review







Promontory, tympanic plexus

Anterior cranial fossa openings and connections:

→ Foramina of cribiform plate

Middle cranial fossa openings

→ Optic canal : CN II

→ Superior orbital fissure : CN III, IV, V_1, VI

→ F. Rotundum : CN V_2

→ F. Ovale : CN V_3

→ F. sphenosum : MMA

→ F. Lacerum : Greater petrosal nerve and internal carotid traverses

Posterior cranial fossa

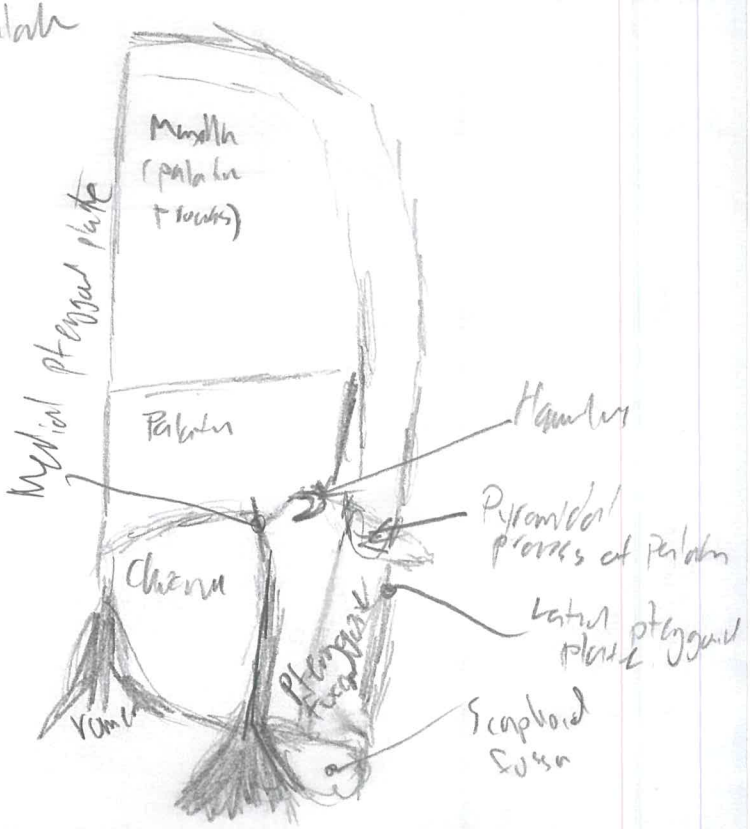
→ Int. Acoustic Meatus : CN VII, VIII

→ Jugular Foramen : CN IX, X, XI and int jugular vein

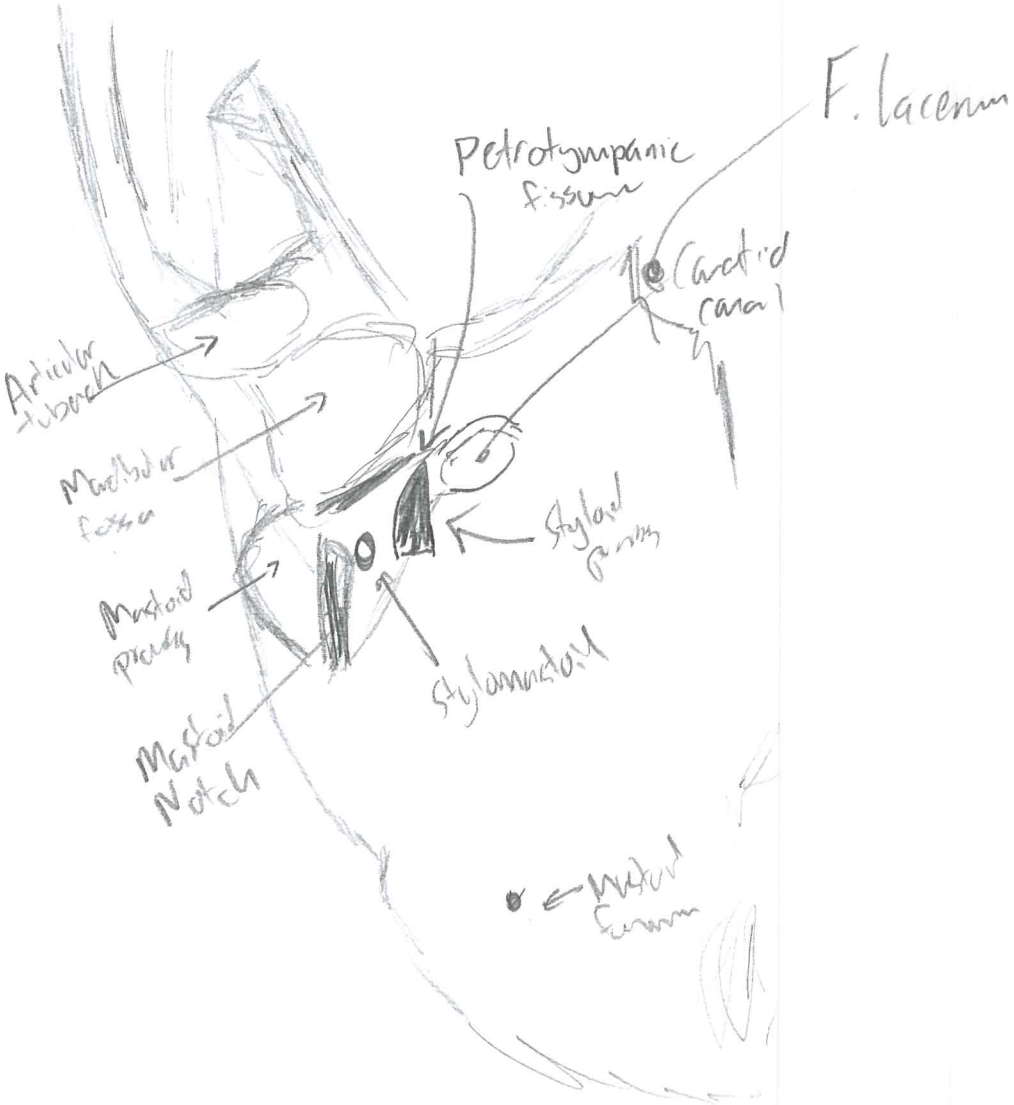
→ Hypoglossal canal : CN XII

→ F. Magnum : Spinal Cord

Close up of sphenoid + palate



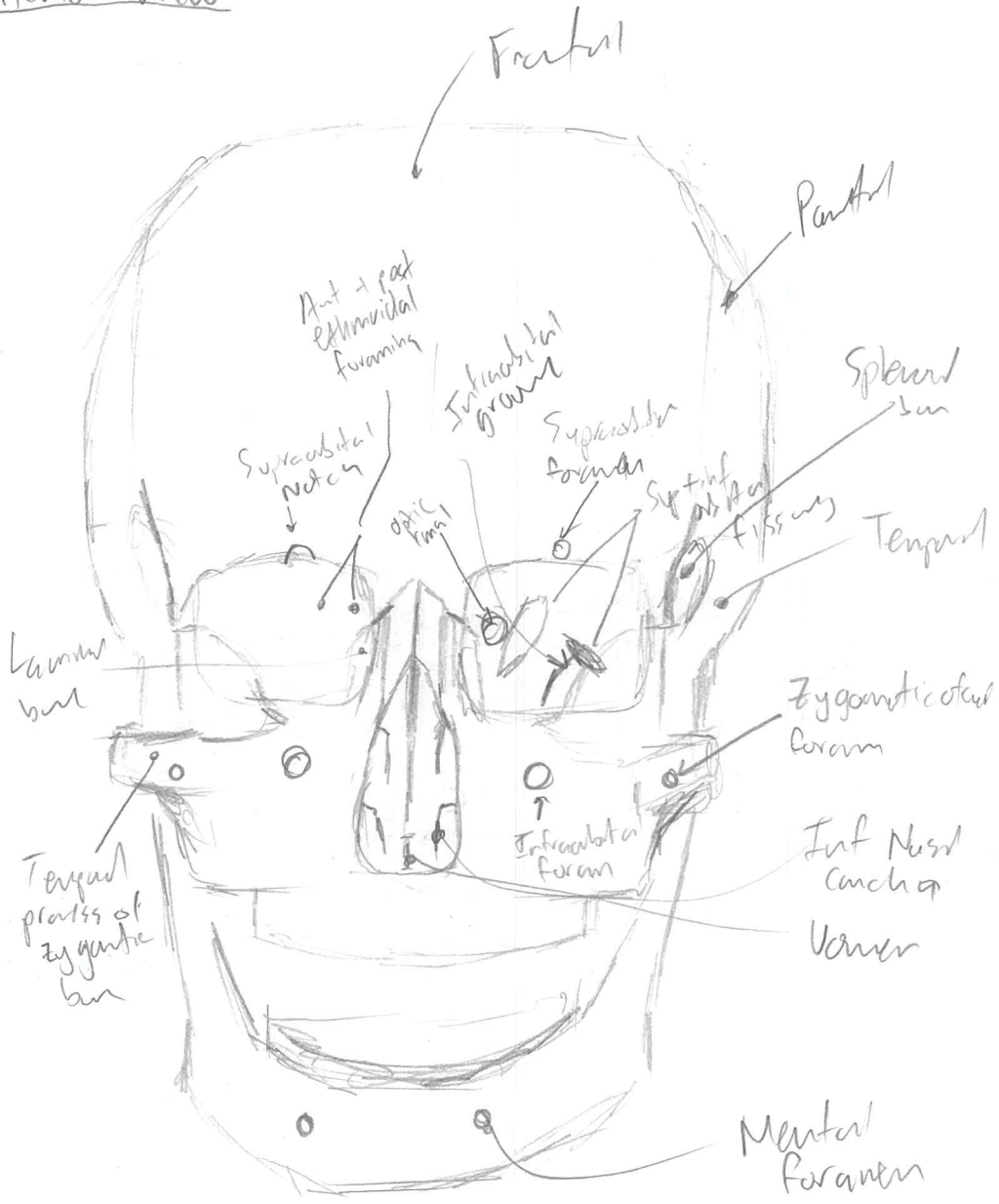
temporal bone: Website: imaios.com



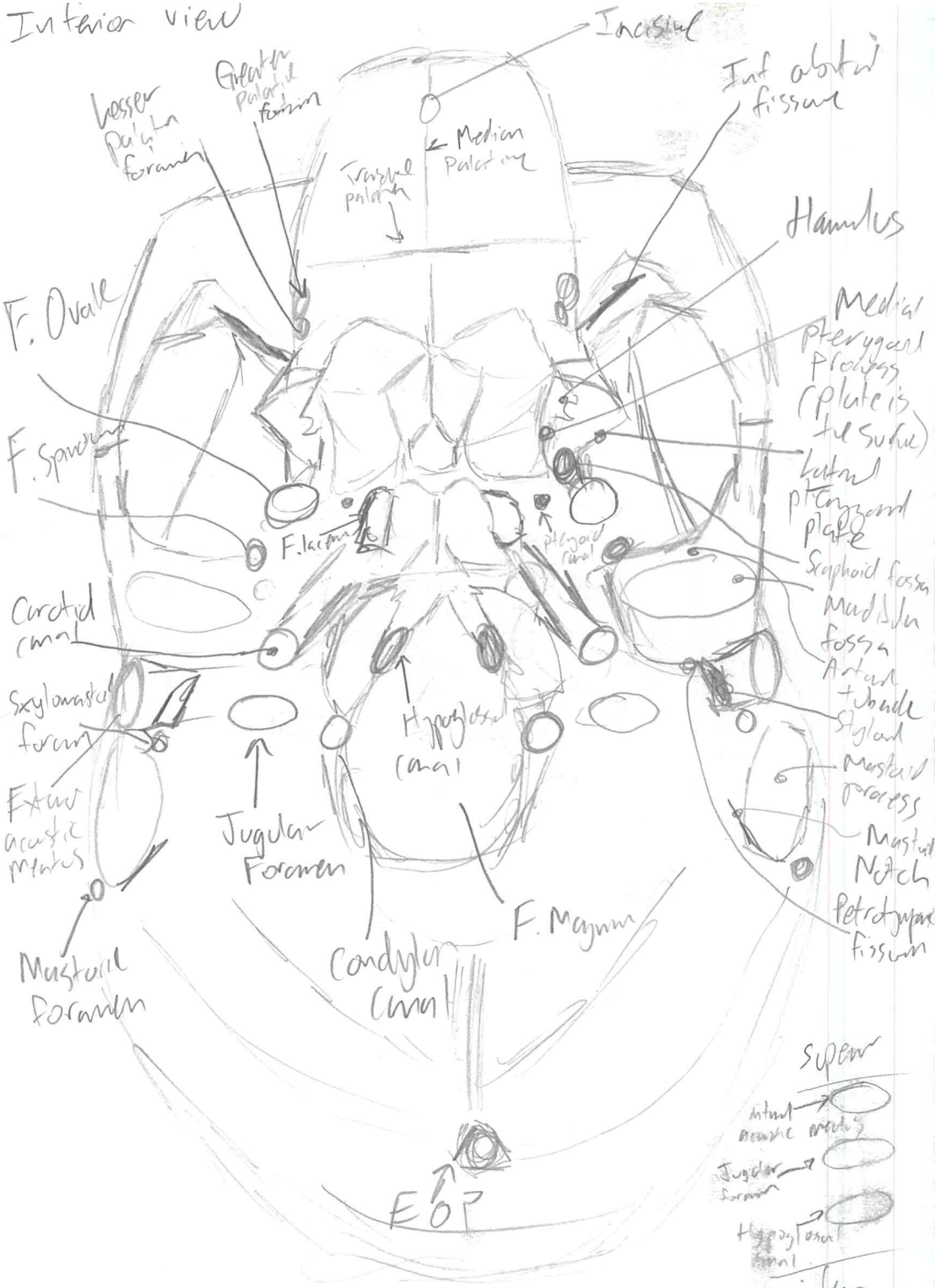
optic: CN II
Orb → Superior orbital fissure CN 3, 4, 5₁, 6
Rule → F. Rotundum CN 5₂
Out → F. Ovale CN 5₃
Stylish → F. spinosum MMA
Lot → F. lacerum GPN + internal carotid plexus

A CN 7, 8
J CN 9, 10, 11 Jugular vein
H CN 12

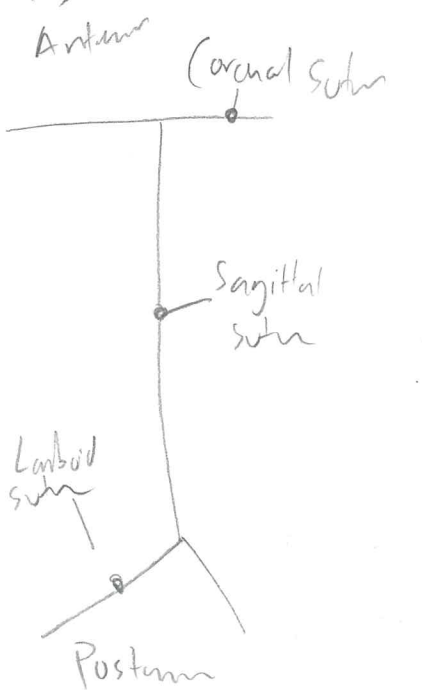
Anterior View

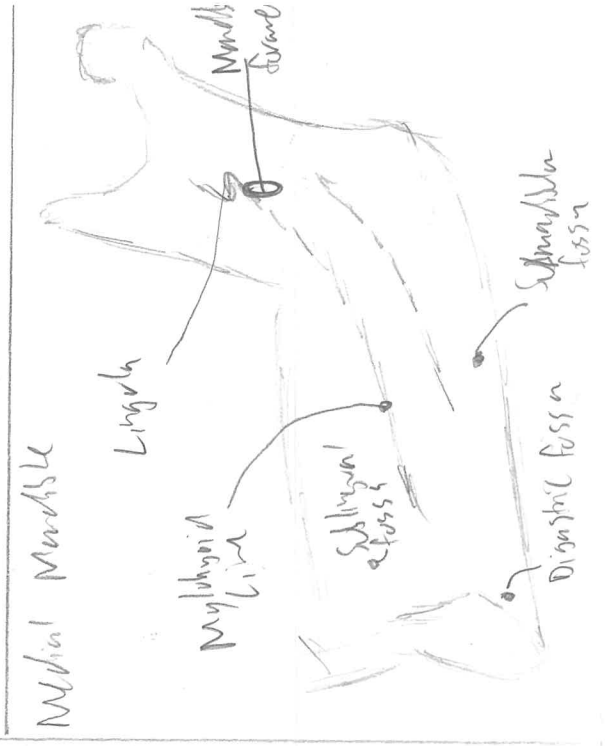


Interior view

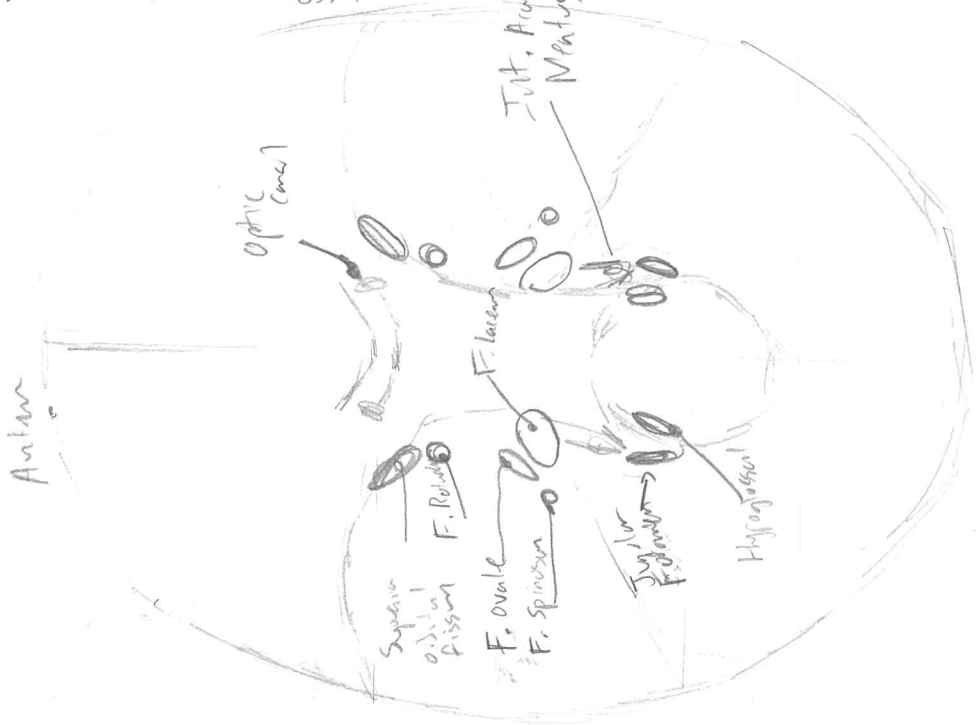


Sutures

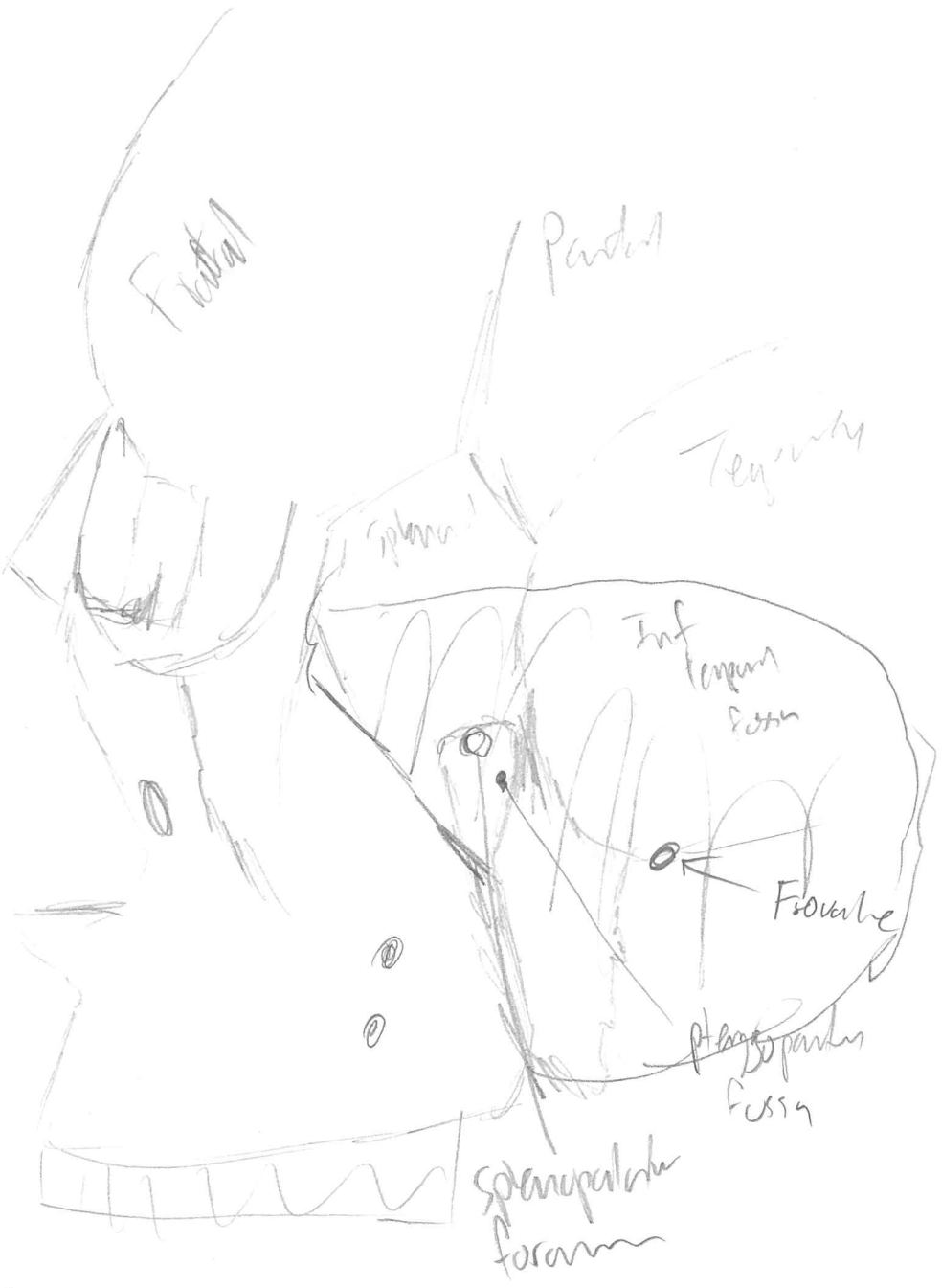




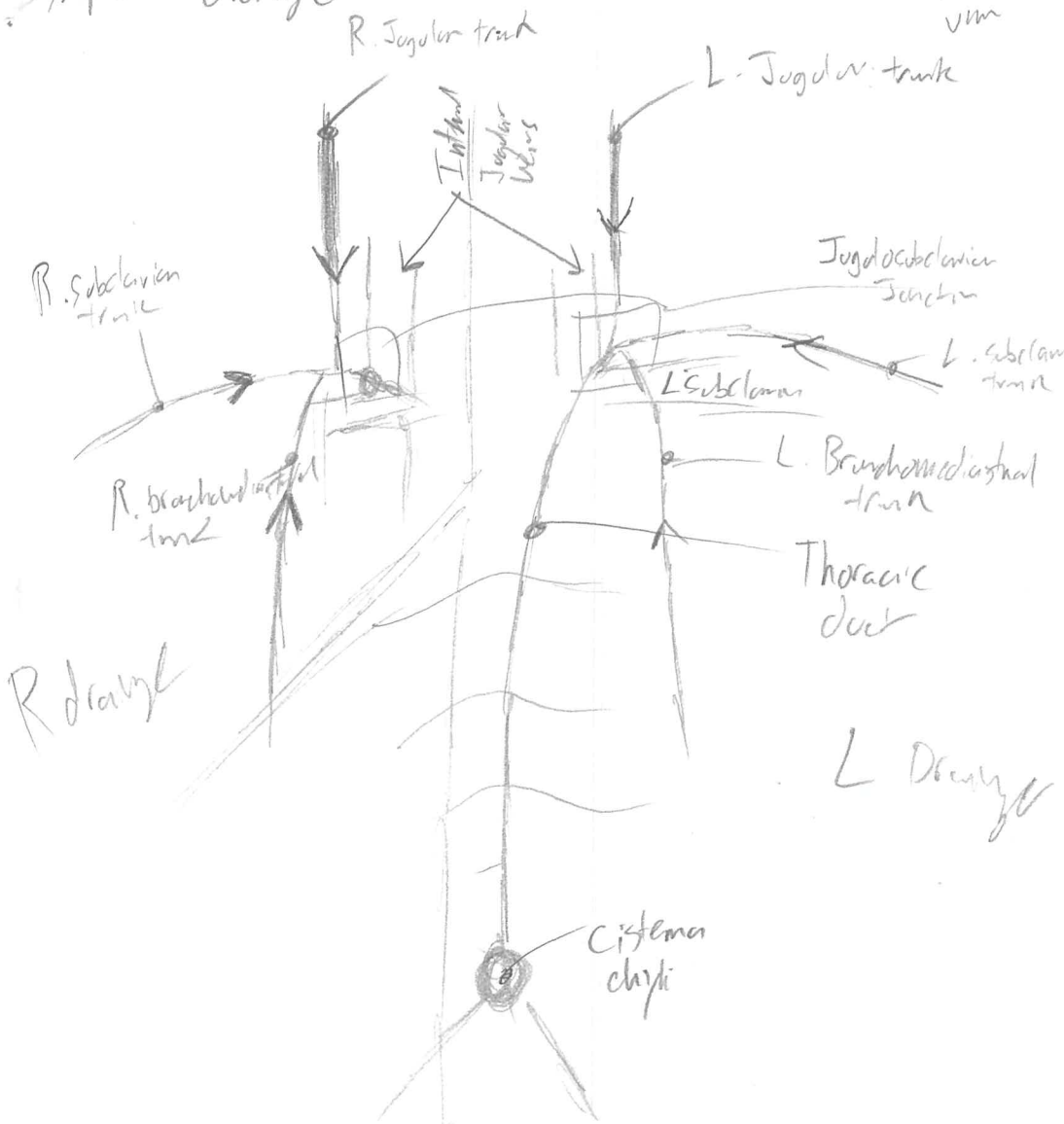
Middle cranial fossa



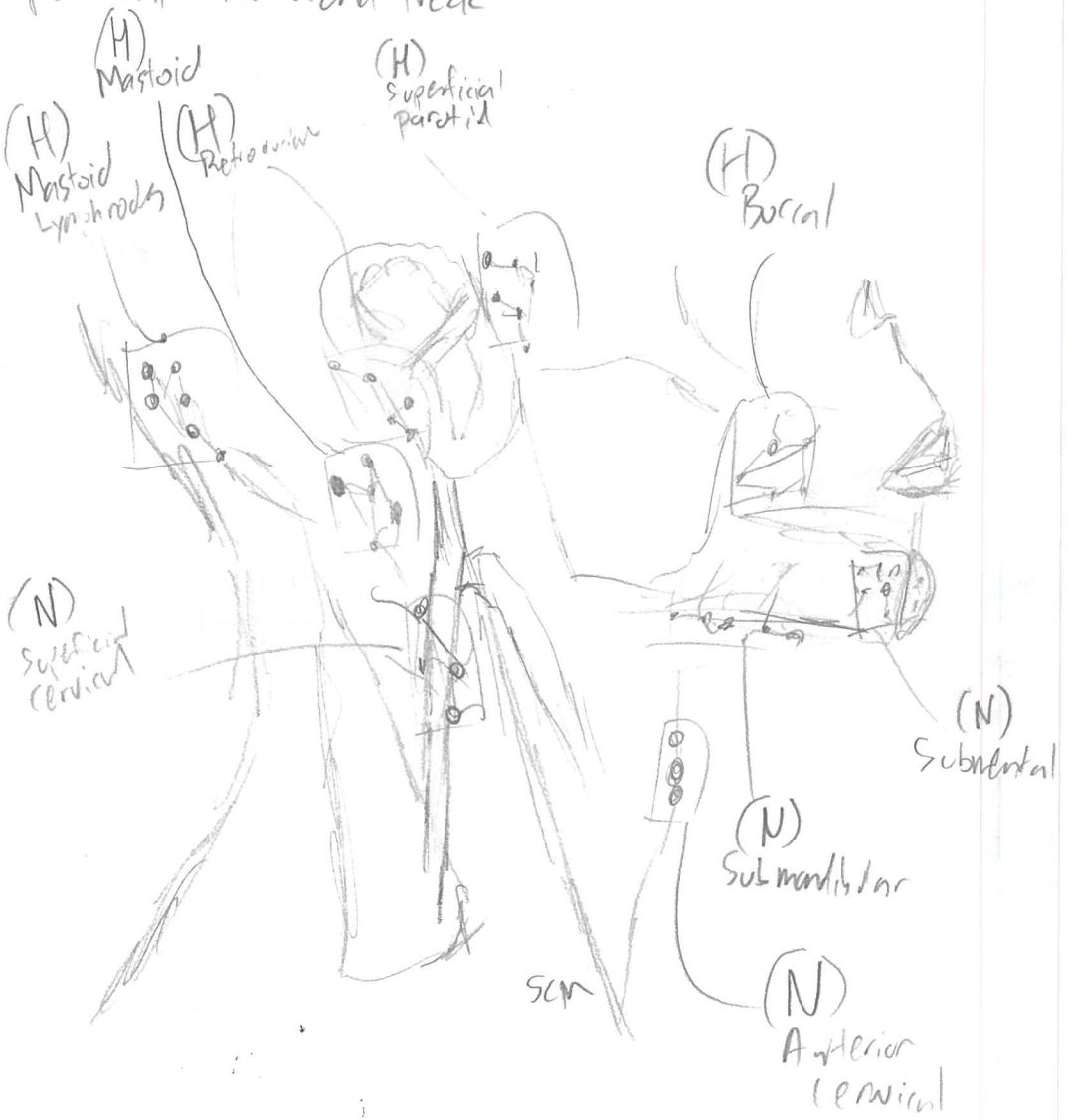
Infratemporal fossa Perspective (Lateral)

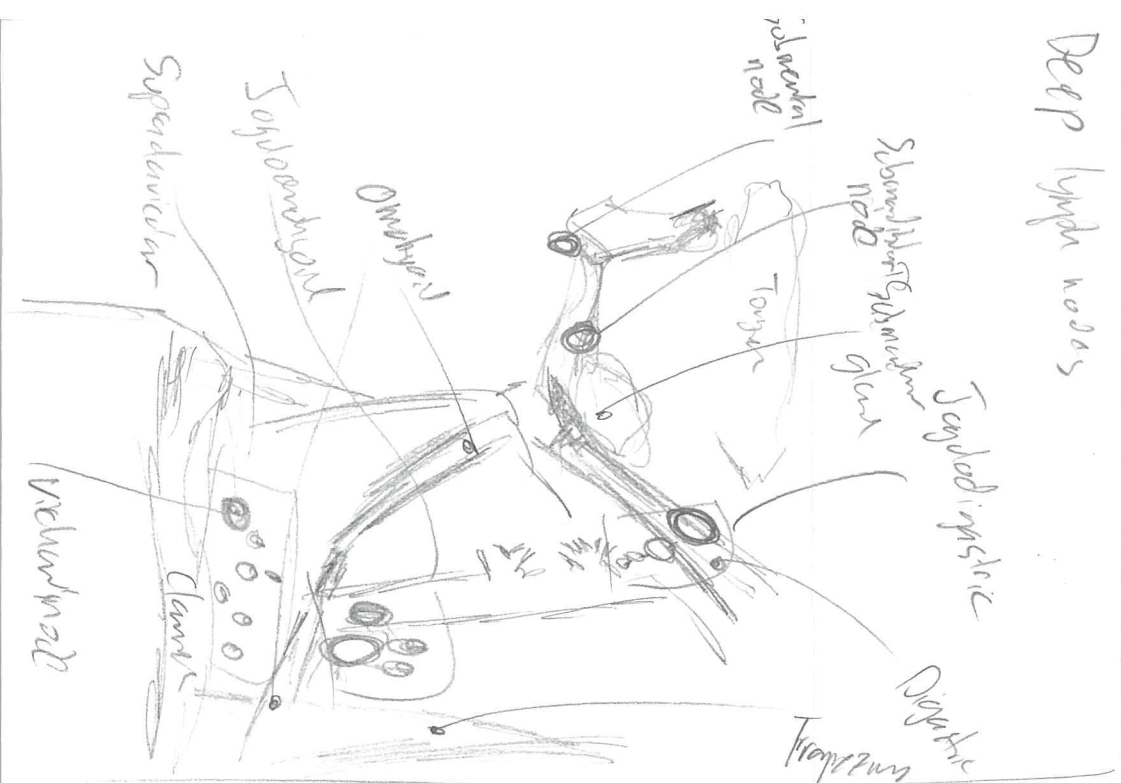


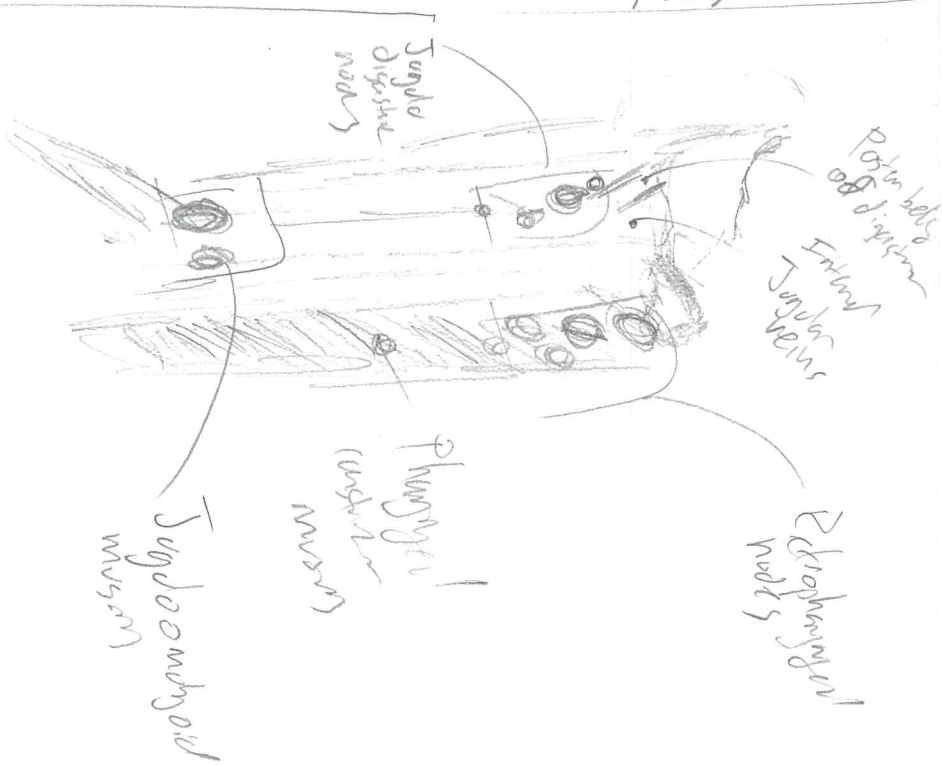
Lymphoid Drainage



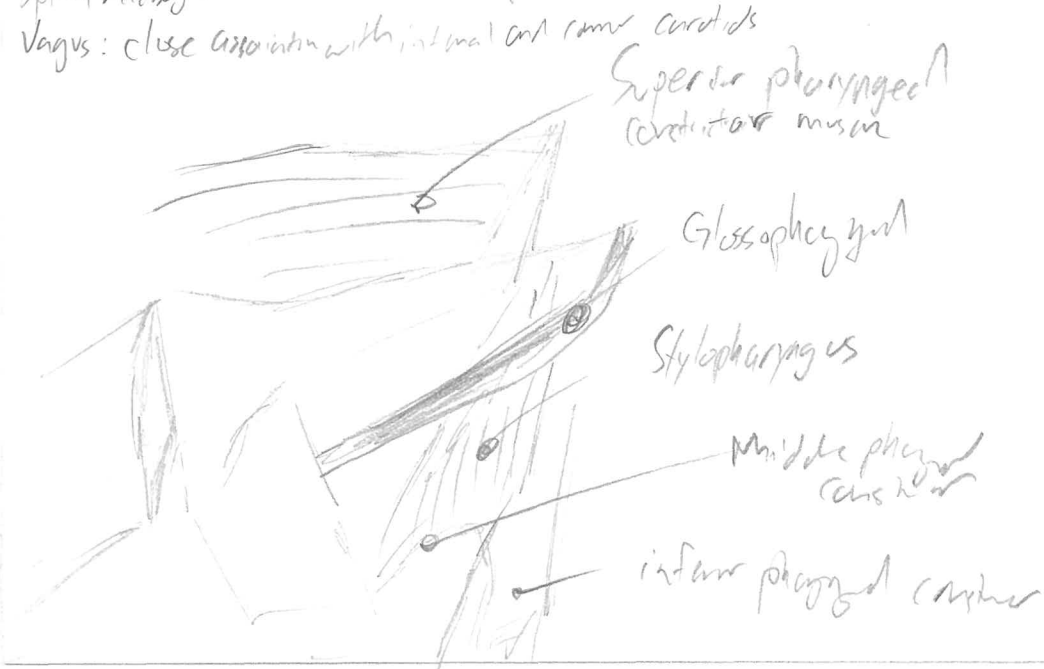
Superficial: Head and Neck







Cranial Nerves outside SKULL:
Spinal Accessory: Between SCM and trapezius
Vagus: close association with internal and common carotids



Lymphnodes of the head and neck.

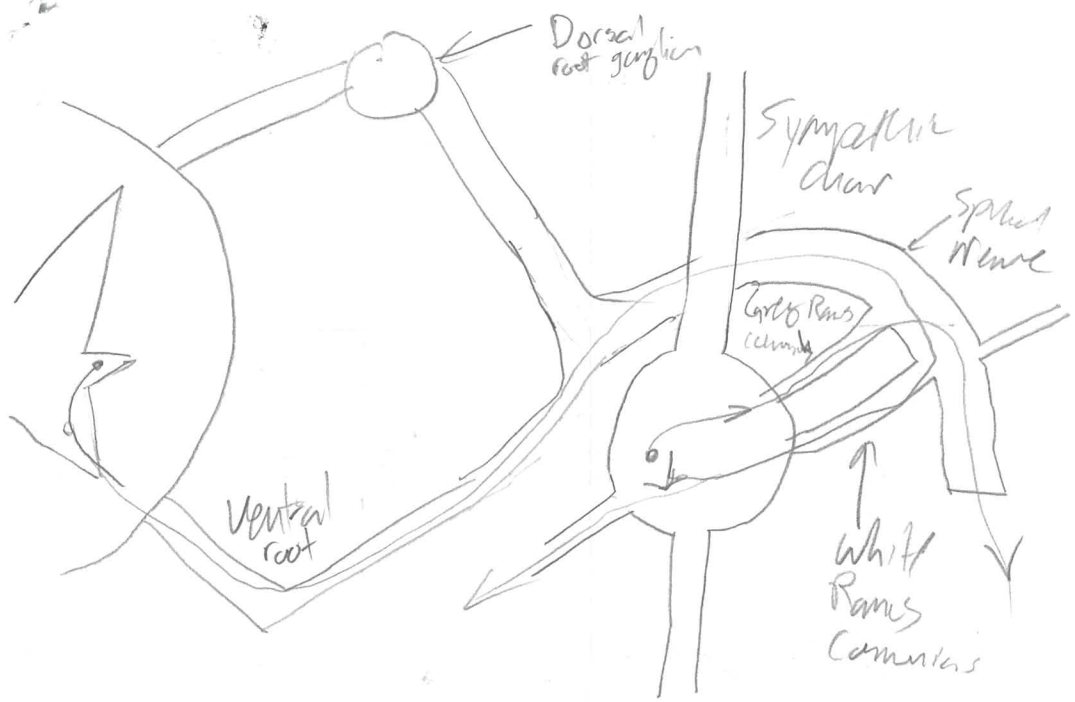
Head: Superficial and deep

Superficial: (5)
- occipital
- Retroauricular
- mastoid
- Parotid
- buccal

Deep: (X)
- Arcollectm
- Lingual lymph nodes at base of tongue

Neck
Superficial: (4)
- superficial cervical
- Anterior cervical
- Submandibular
- Submental

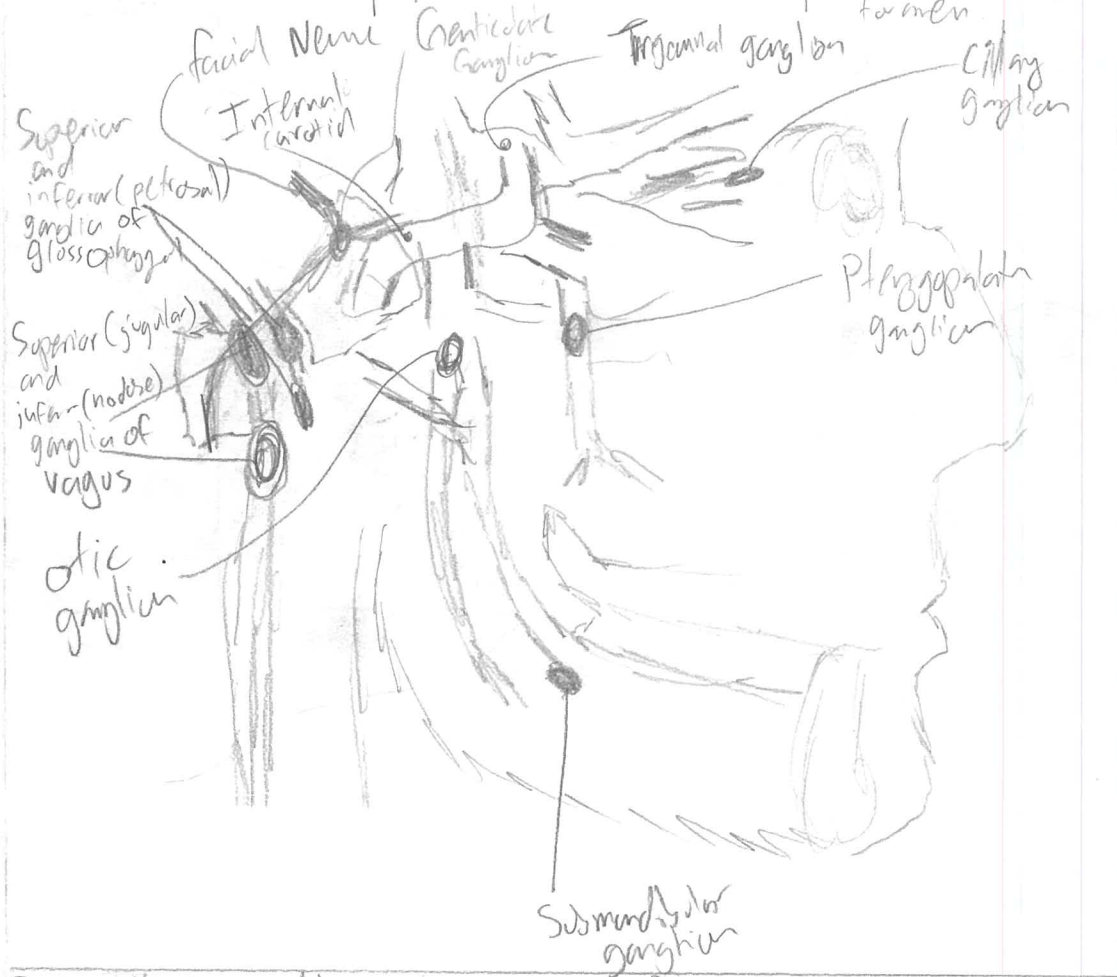
Deep (4)
- Superclavicular — lower deep
- Jugulo omohyoid
- Retropharyngeal — upper deep
- Jugulodigastric



Sensory ganglia of the cranial nerves

5 cranial nerves contain sensory ganglia

1. Trigeminal	V	Trigeminal Ganglion	Meckel's cave
2. Facial	VII	Geniculate Ganglion	facial canal within petrous temporal bone
3. Vestibulocochlear	VIII	Spiral (cochlear)/vestibular ganglion	
4. Glossopharyngeal	IX	Superior and inferior (petrosal)	Jugular canal
5. Vagus	X	Superior (jugular) inferior (nodose)	Jugular foramen

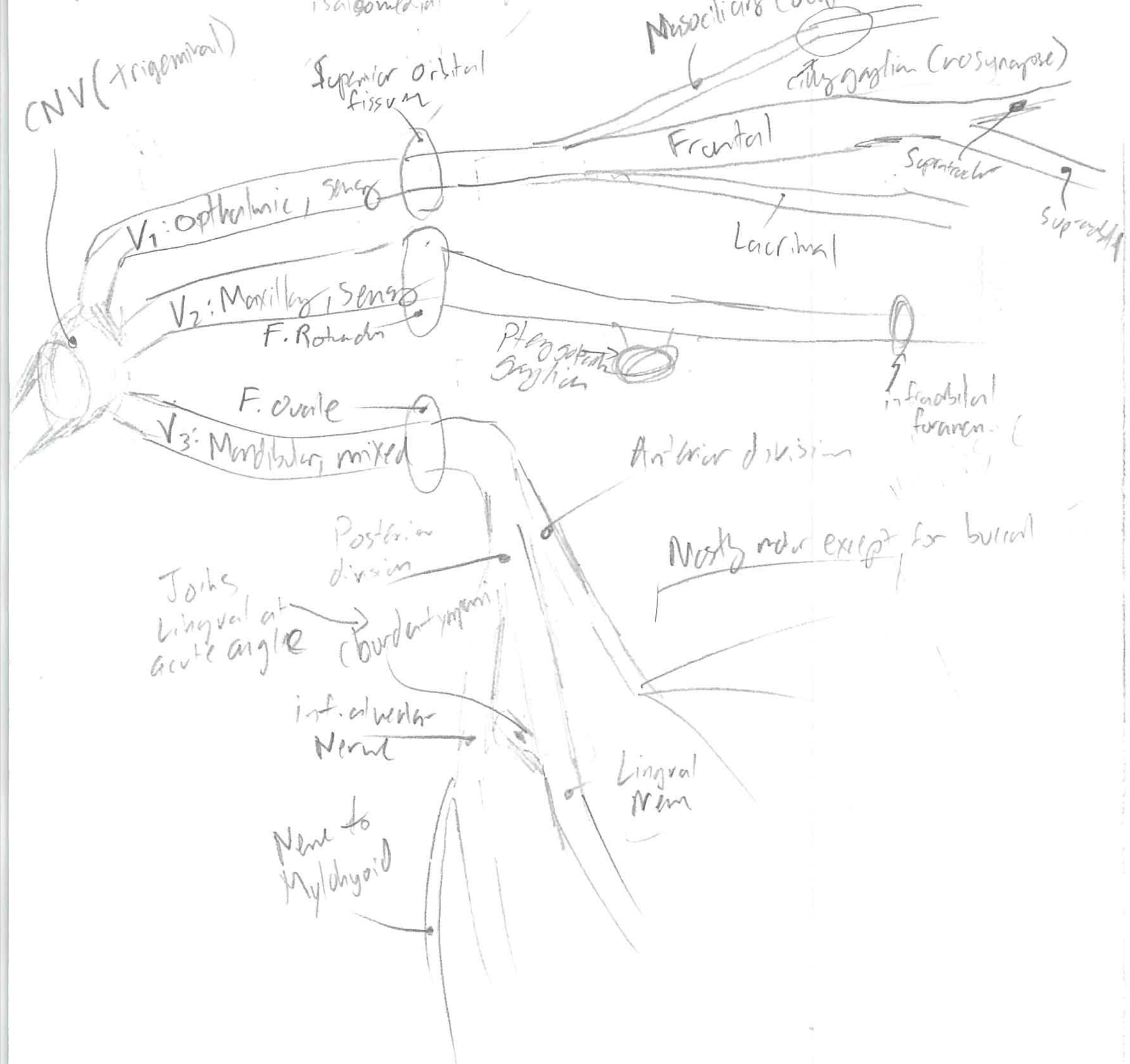


Ganglia in the neck (sympathetic)

Parasympathetic ganglia:

Oculomotor (III)	Ciliary ganglion	Orbit
Facial (VII)	Pterygopalatine and Submandibular ganglion	Pterygopalatine fossa near submandibular gland
Glossopharyngeal (IX)	otic ganglion	below f. ovale
Vagus (X)	Ganglia in thorax and abdomen	Thorax + abdomen

Trigeminal Nerve

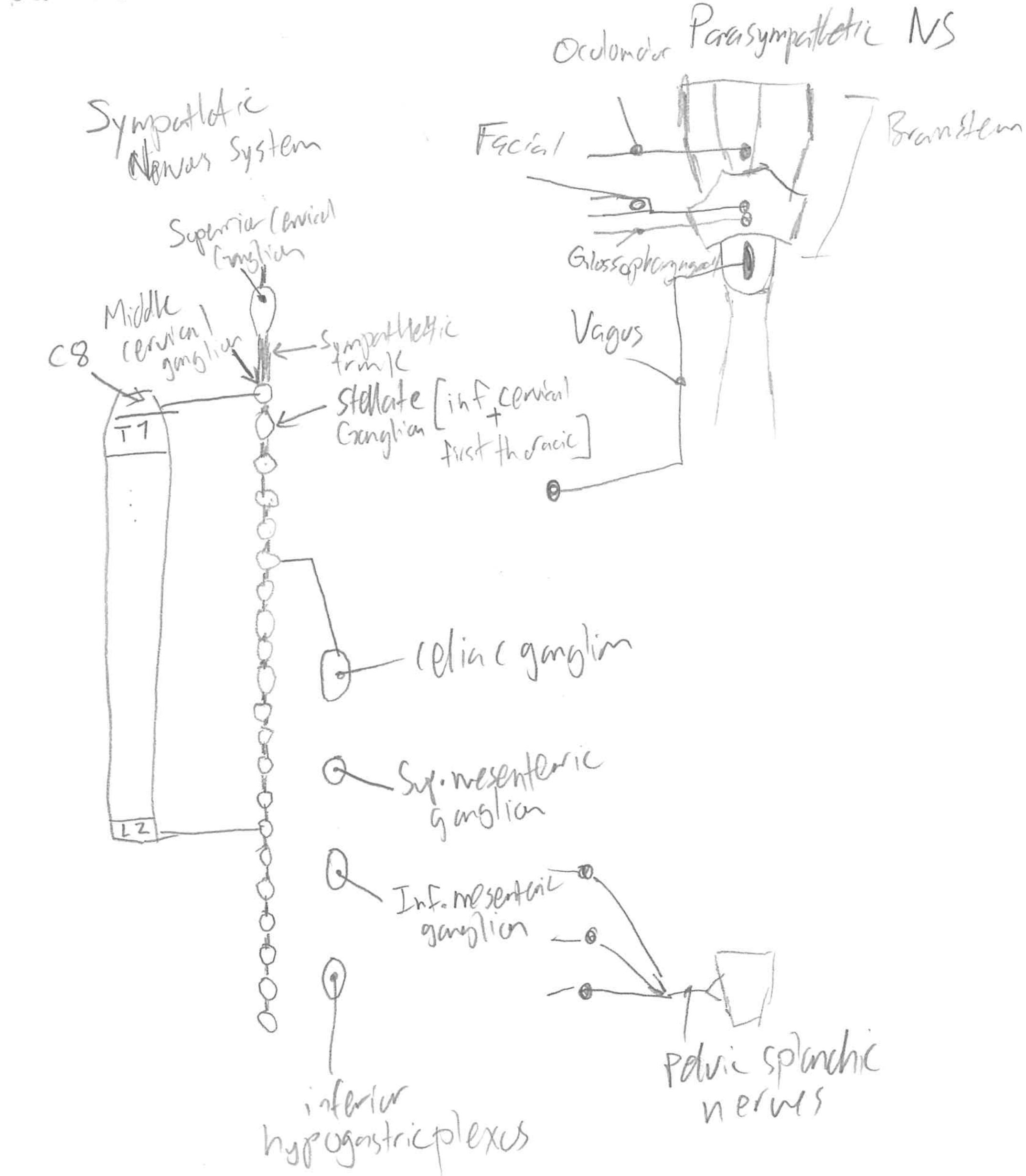


Nerves:

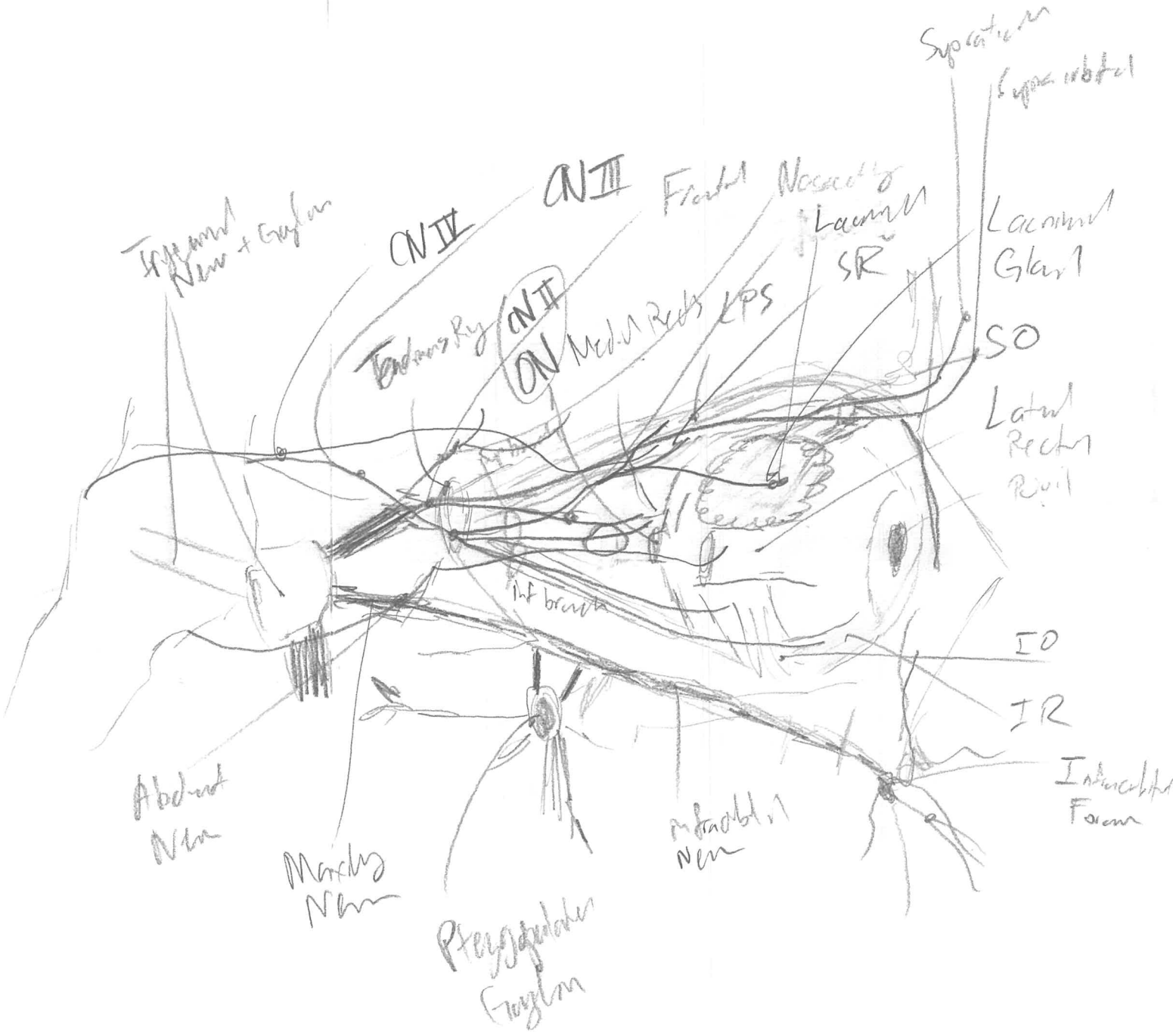
Parasympathetic : Brainstem ●———●—●

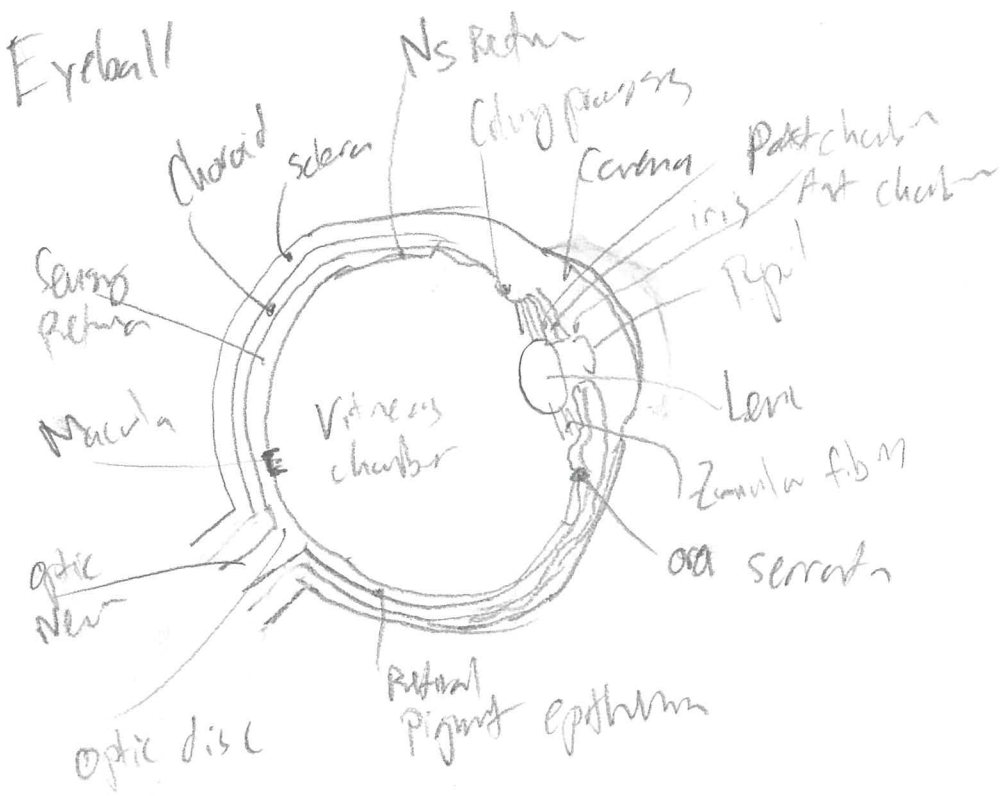
Sympathetic : Spine ●—●————●

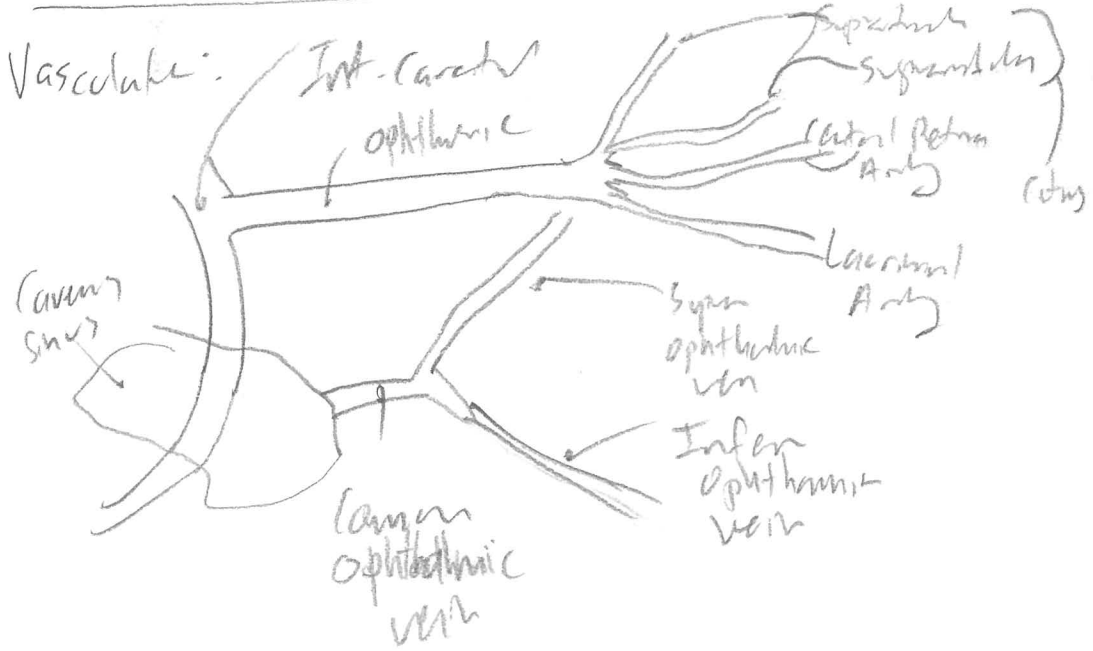
Somatic : ●————————●



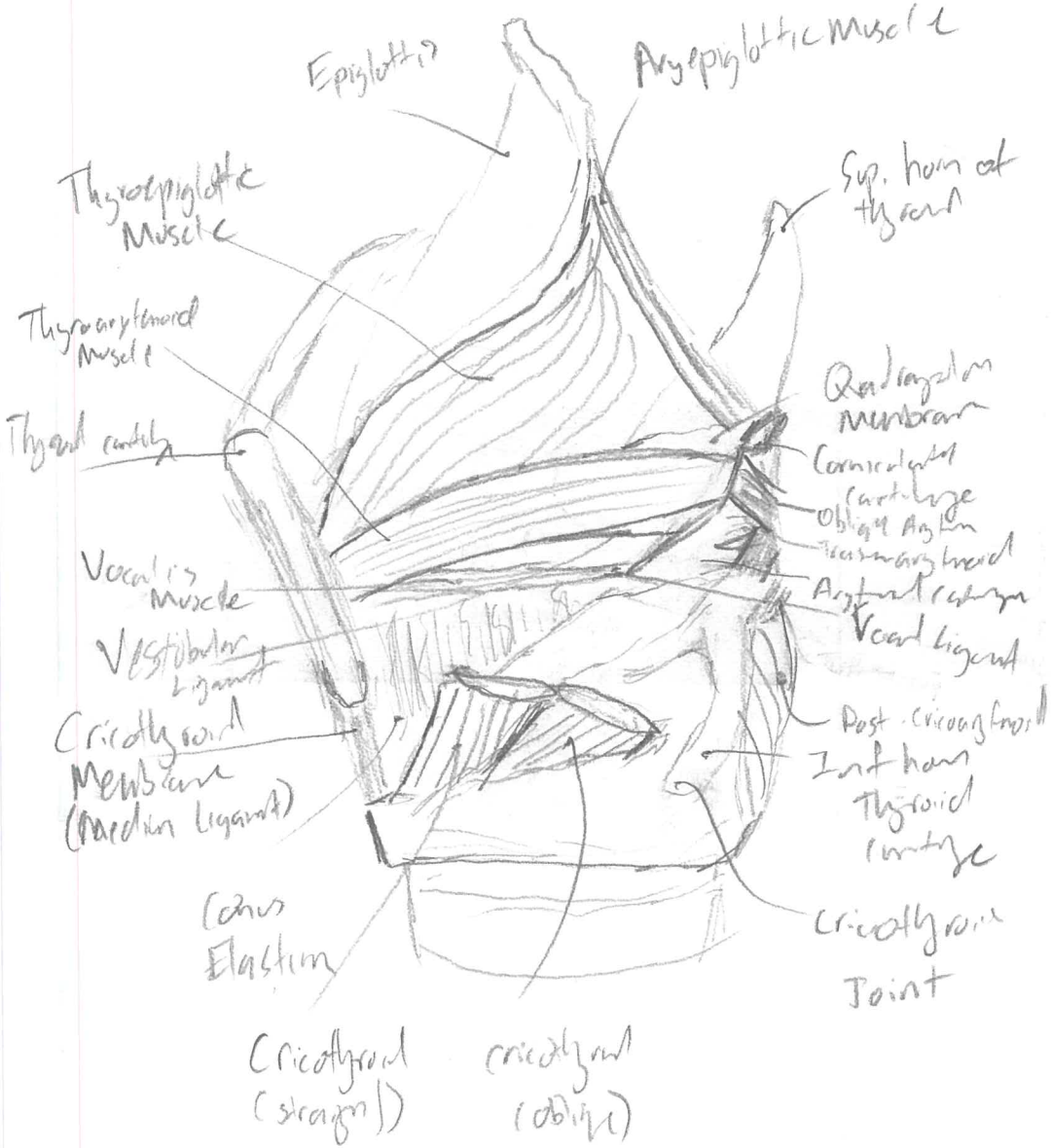
Neuro


CN II
CN II
CN II
CN
Lacrimal Gland
SO
Lateral Rectus
IO
IR
Inferior Oblique
Pterygopalatine Ganglion

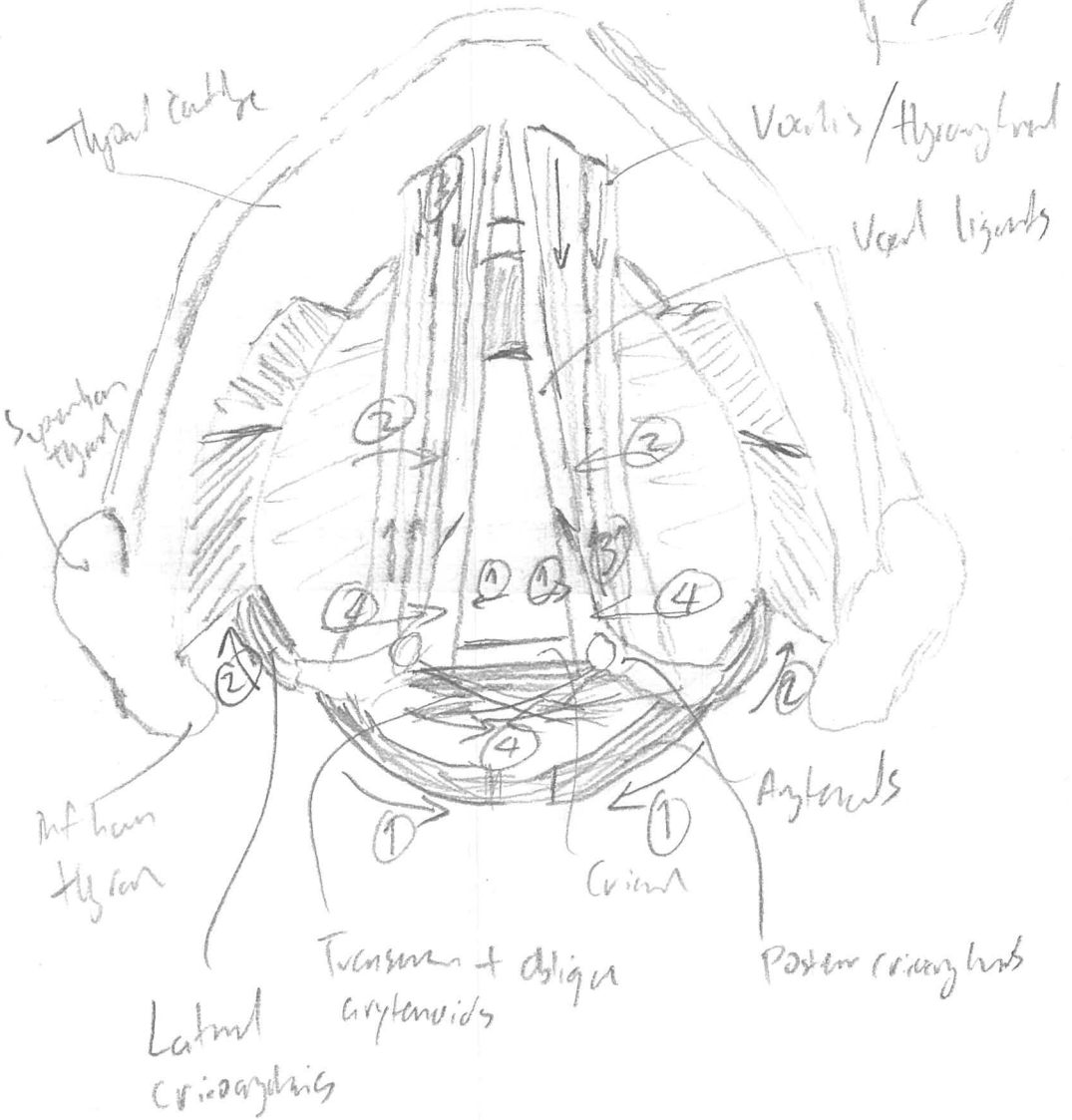

Eyeball
Ns Retina
Choroid
sclera
Ciliary process
Cornea
Post chamb
Ant chamb
iris
Pupil
Sensory Retina
Lens
Macula
Vitreous chamber
Zonular fib M
ora serrata
optic Nerv
Retinal Pigment epithelium
optic disc


Vasculature:
Int. carotid
ophthalmic
Supratrochl
Supraorbital
Central Retina A.
Ciliary
Lacrimal A.
Cavern sinus
Sup ophthalmic vein
Inferior ophthalmic vein
Cavern ophthalmic vein

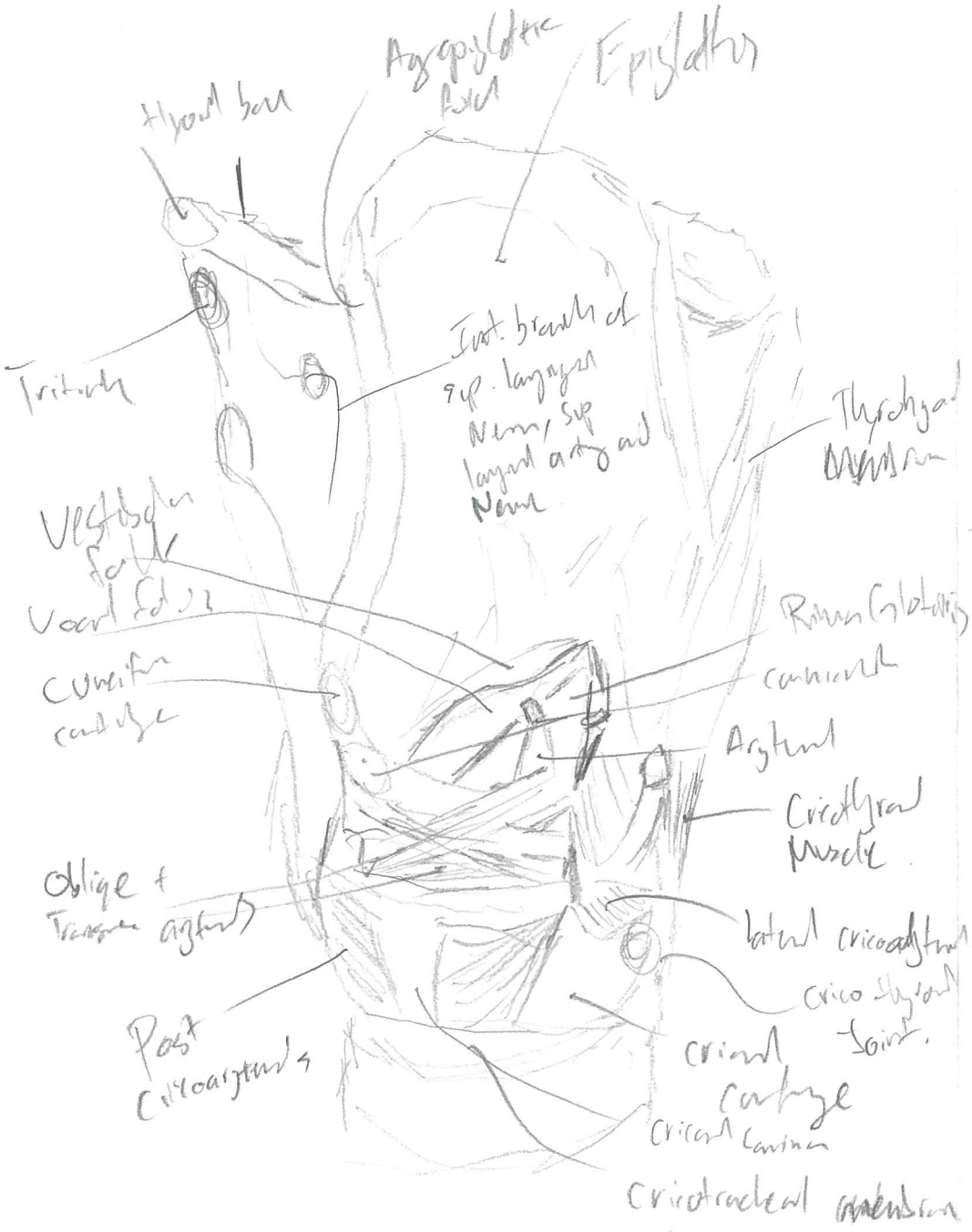
Lateral View Sectional Larynx

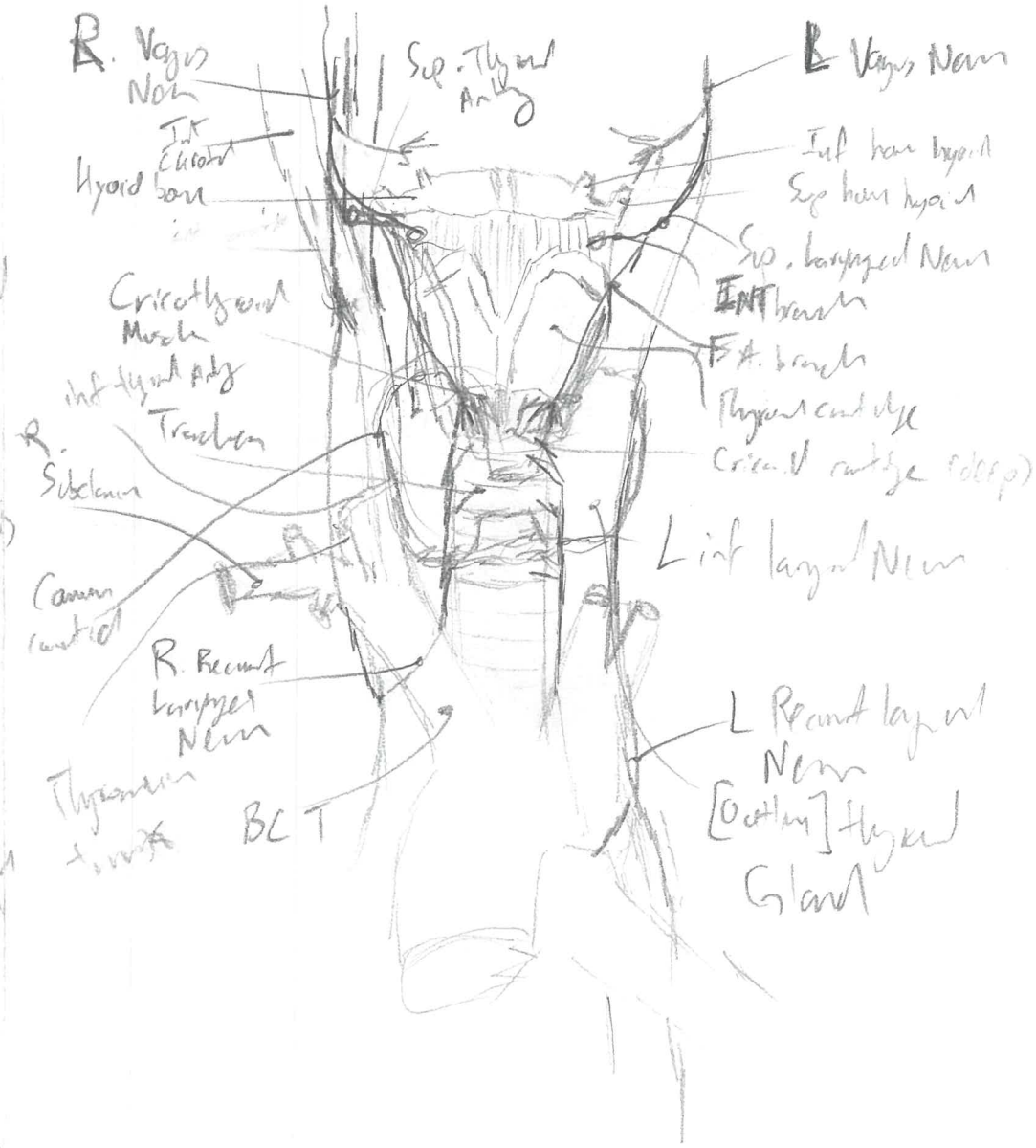


1. Posterior cricoarytenoids (abductor)
2. Lateral cricoarytenoids (adductor)
3. Vocalis (relaxer)
4. Transverse and oblique arytenoids (adductor)
5. Cricothyroid muscle (tensor)

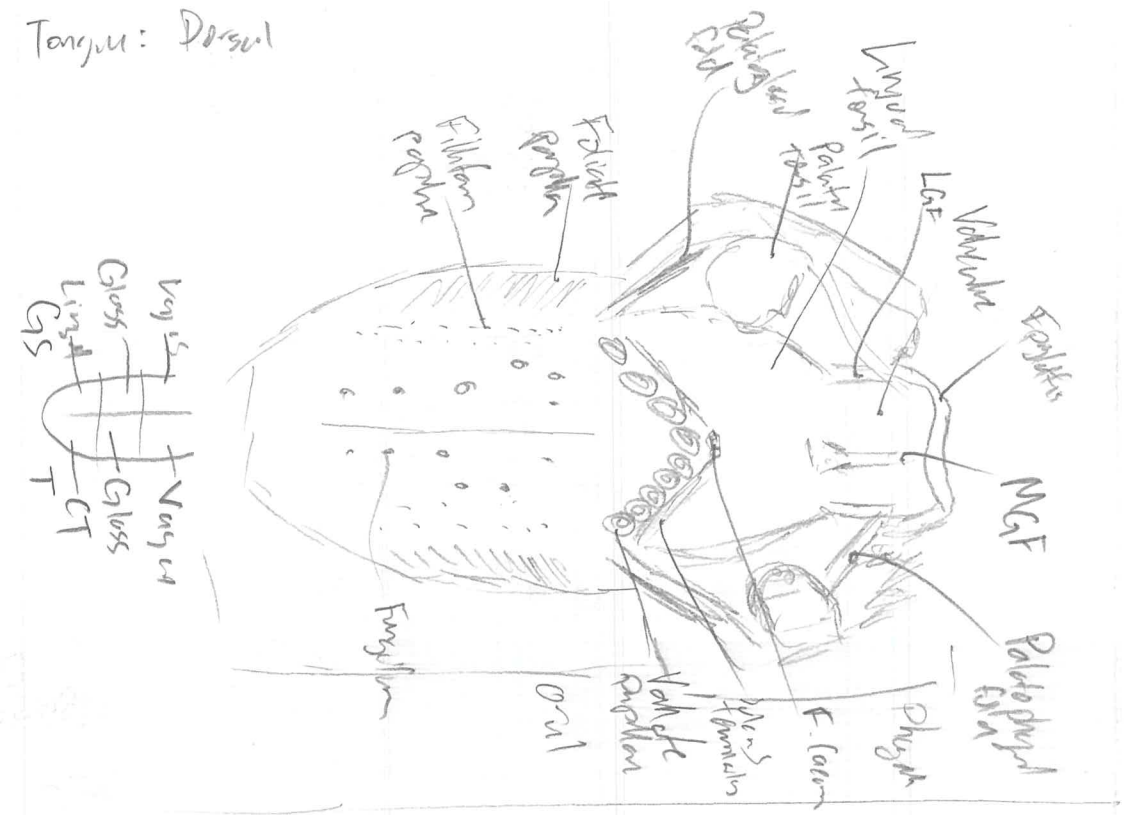


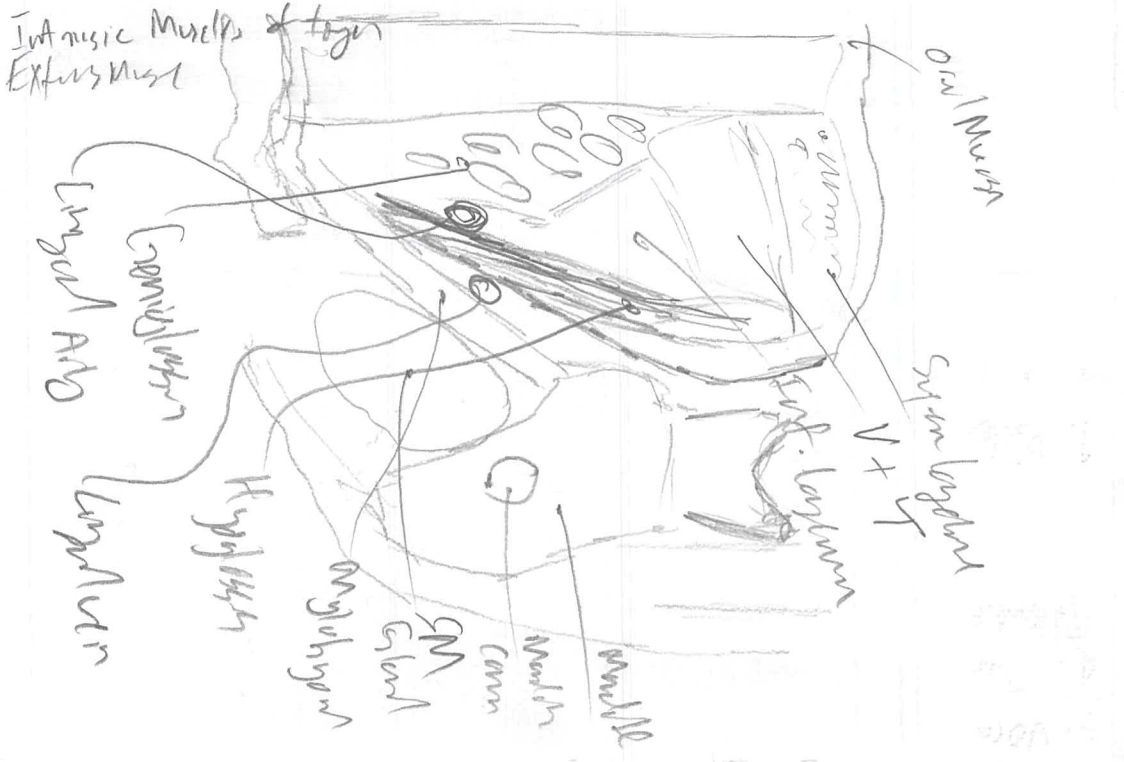
Larynx: Anterior view + Nerves + Arteries





Tongue: Dorsal





1 A Oral vestibule
B Lingual alveolar sulcus
C Superior ~~longitudinal~~ fibres
D Genio~~glossus~~ Muscle
E Palatopharyngeal arch/fold
F dorsum apex

2 A Vallate papillae
B Sulcus terminalis / f. foramen caecum
C Median Glossoepiglottic fold
D Hypoglossus
E Submandibular Gland
F Lingual

- Lingual nerve
- Chorda tympani joining the lingual nerve
- Submandibular gland
- Hypoglossal nerve

ACTIVITY 3 – SALIVARY GLANDS

- Identify the three extrinsic salivary glands and complete the following table:

Salivary Gland	Location	Secretion	Location emptied into oral cavity
Parotid Gland	cheeks / ears lateral to condyle	Serous	parotid duct at parotid papilla
Submandibular Gland	Medial to body of mandible + wraps around mylohyoid	Mixed	Sublingual papilla
Sublingual Gland	Between floor of mouth and mylohyoid	Mucus	into sublingual fold

Big →

- Identify the following associations of the parotid gland:
  - Branches of the facial nerve leaving the anterior border of the gland
  - Parotid duct piercing buccinator
  - Auriculotemporal nerve leaving the superior border of the gland

ACTIVITY 4 – PALATE

- List the bones and their features that form the hard palate:

Maxilla: Palatine process
palatine bone: Horizontal plate, posterior nasal spine

- Identify the incisive papilla, rugae, and median raphe of the palate
- Complete the following table:

Muscle	Origin	Insertion

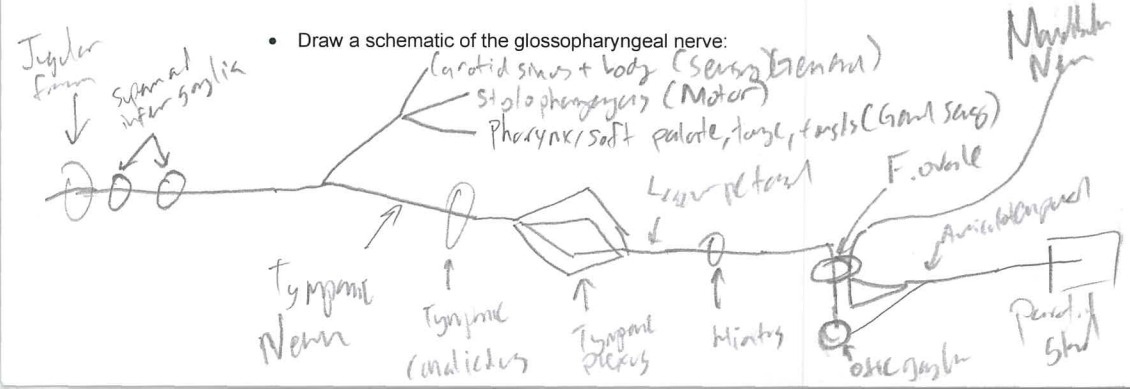
A levator veli palatini
B tensor veli palatini
C Lingual tonsil
D Glossopharyngeal nerve
E Sup root ansa cervicalis
F Mandibular nerve, Medial pterygoid branch

Levator Palati	auditory tube, adjacent petrous temporal	Palatal aponeurosis
Tensor Palati	Scaphoid fossa, cartilage auditory tube, adjacent sphenoid, hamulus	Palatal aponeurosis
Palatoglossus	Sides of tongue	palatal aponeurosis
Palatopharyngeus	Pharynx, thyroid cartilage	soft palate
Uvula	Posterior nasal spine	air?, great muscles

- List the nerve that provides motor to the following structures:
  - Tensor palati: Trigeminal → Mandibular → Medial pterygoid branch
  - Levator palati: pharyngeal plexus
  - Palatoglossus: pharyngeal plexus
  - Palatopharyngeus: pharyngeal plexus
  - Uvula: pharyngeal plexus
- List the nerve that provides general sensory to the following structures:
  - Anterior hard palate: Nasopalatine
  - Posterior hard palate: Greater palatine nerve
  - Soft palate: Lesser palatine nerves

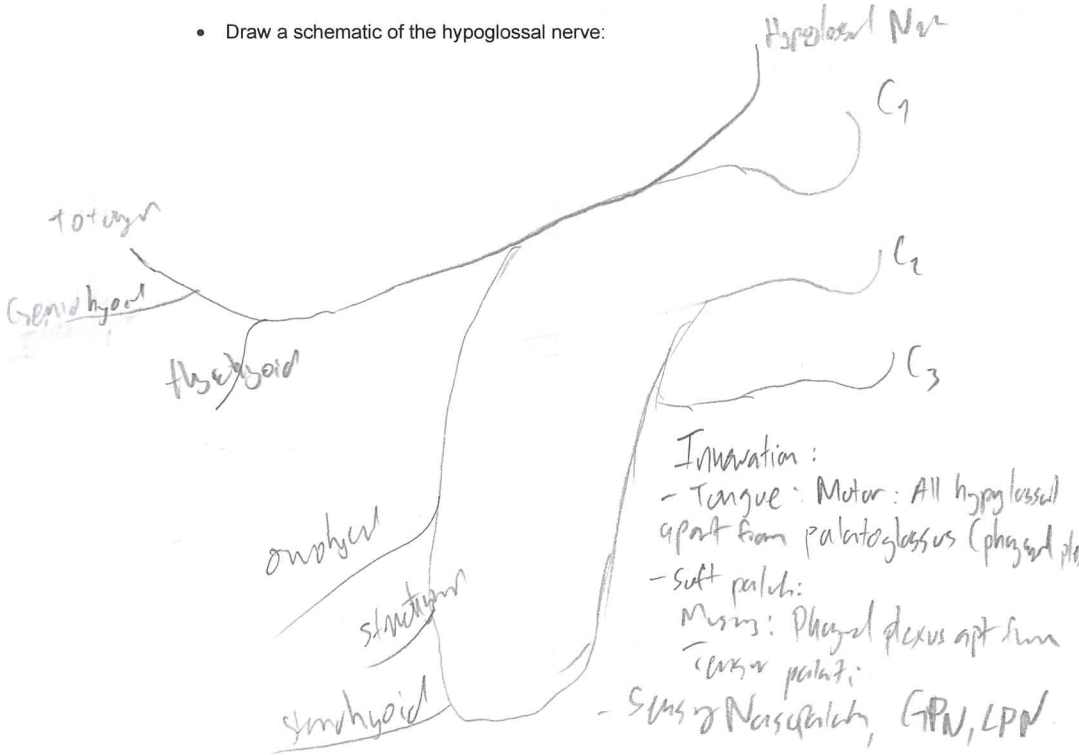
ACTIVITY 5 – GLOSSOPHARYNGEAL NERVE (CN IX)

- Identify the glossopharyngeal, vagus and spinal accessory nerves entering the jugular foramen
- List the fibre types of the glossopharyngeal nerve:
  Parasympathetic
  carotid motor
  G. sensory
  S. sensory
- Identify the glossopharyngeal nerve posterior to the stylopharyngeus muscle
- Draw a schematic of the glossopharyngeal nerve:



ACTIVITY 6 – HYPOGLOSSAL NERVE (CN XII)

- Identify the hypoglossal nerve entering the hypoglossal canal
- Identify the hypoglossal nerve in the neck
- Which muscle and part of this muscle does the hypoglossal nerve travel deep to in the neck?
  digastric muscle, intermediate tendon
- List the fibre types found within the hypoglossal nerve:
  motor,
- Describe the course of the hypoglossal nerve:
  1. Exit post cranial fossa via hypoglossal canal
  2. Picks up hitchhikers from C1
  3. Travels deep to intermediate tendon of digastric
  4. Enlyse C1 hitchhikers to form sup loop
  5. Runs below hyoglossus muscle
- Identify the superior root of ansa cervicalis leaving the hypoglossal nerve and the nerve loop of ansa cervicalis
- Draw a schematic of the hypoglossal nerve:

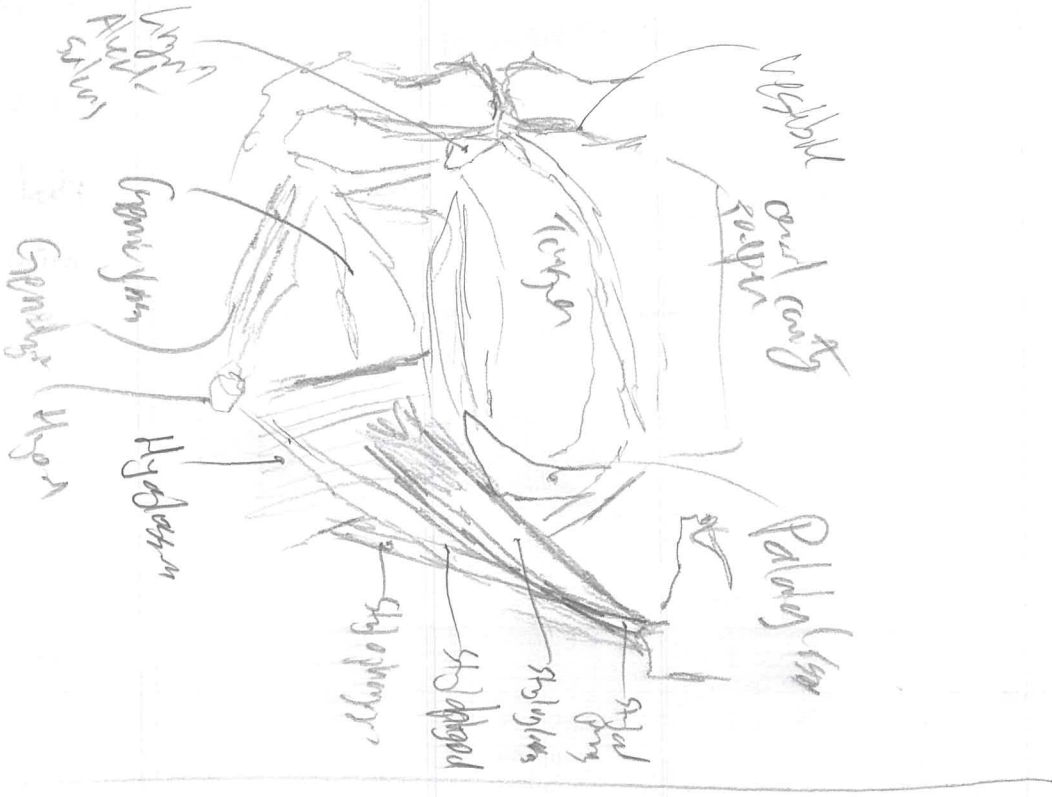


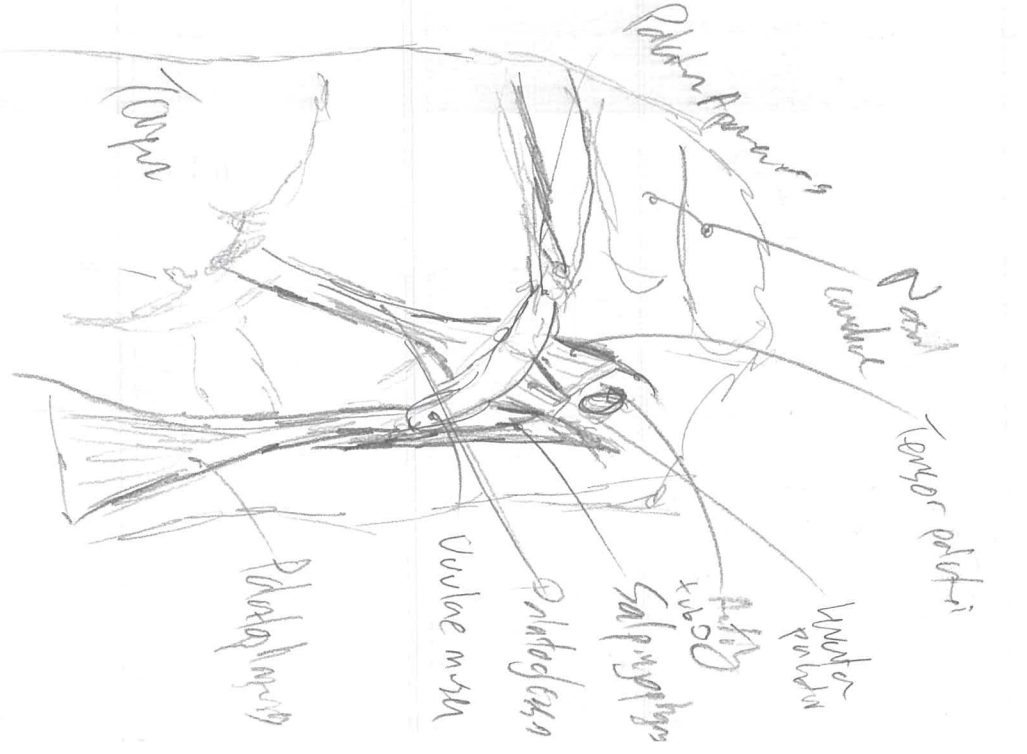
Feature	Oral or Pharyngeal Tongue
Fungiform papilla	oral
Filiform papilla	oral
Foliate papilla	oral
Vallate papilla	oral
Lingual tonsils	pharyngeal
Median and lateral glossoepiglottic fold	pharyngeal
Valleculae	pharyngeal

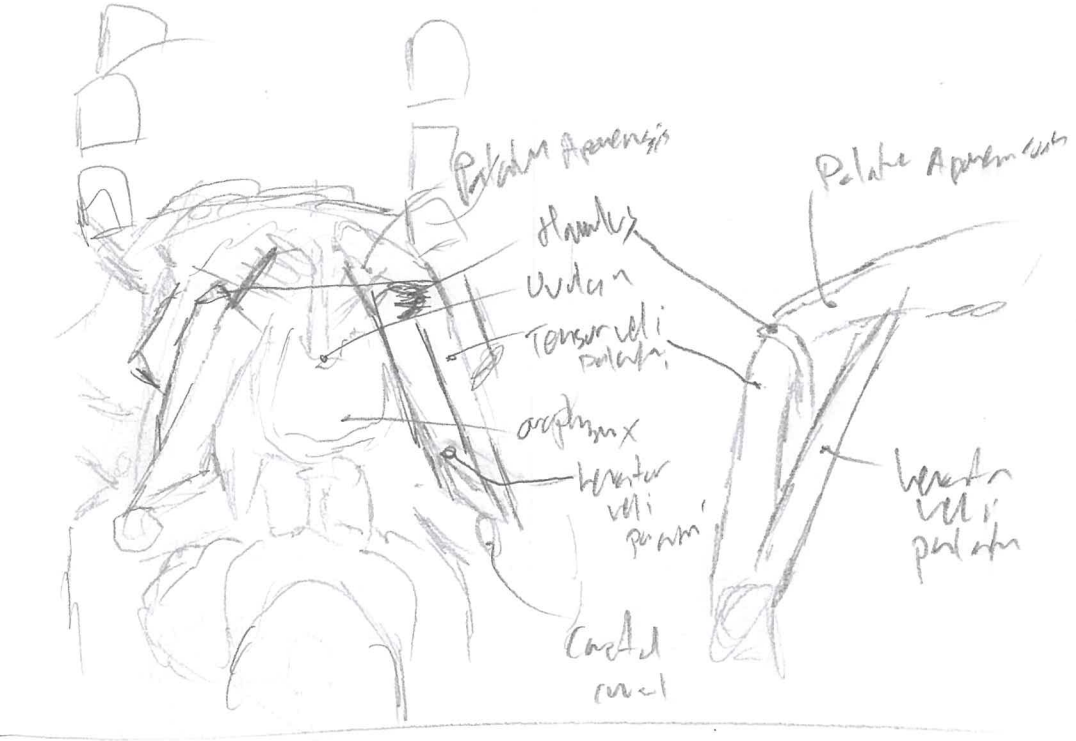
- Complete the following table:

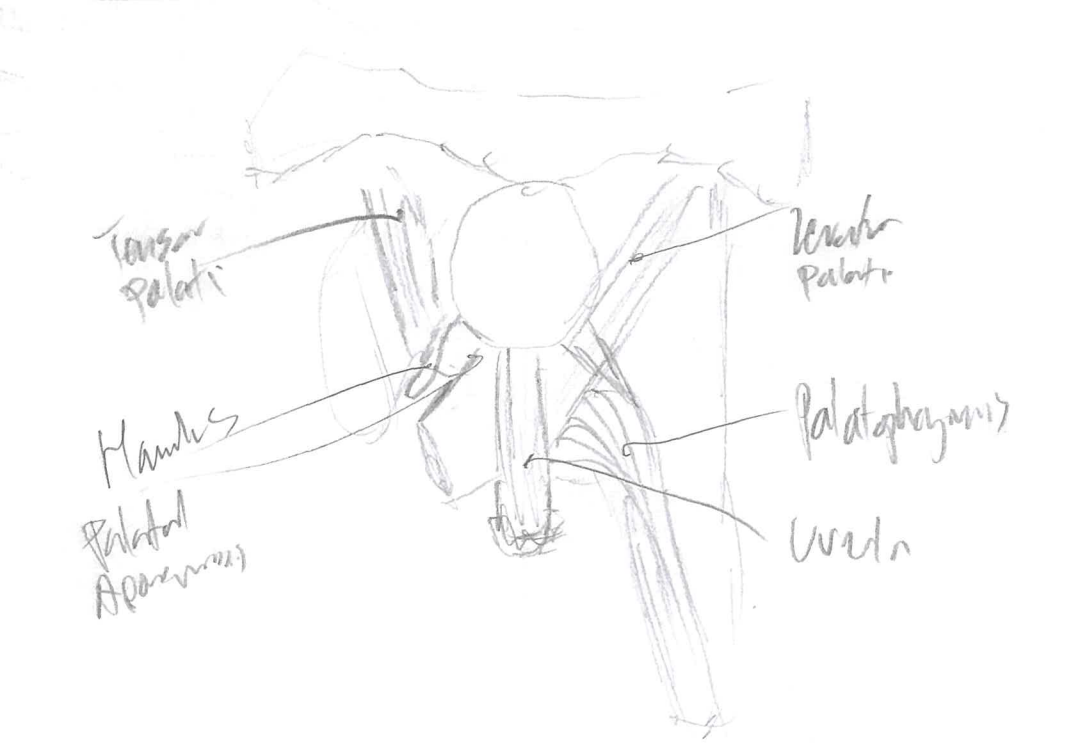
Intrinsic Muscle	Location	Action
Superior longitudinal	Under mucosa of dorsal tongue	lift apex
Inferior longitudinal	Inferolateral sides of tongue	dip apex
Vertical	Between dorsum and ventral tongue	flatten + widen tongue
Transverse	Between dorsum and ventral tongue	narrow + elongate tongue

- Identify the following muscles:
  - Genioglossus
  - Hyoglossus
  - Styloglossus
  - Palatoglossus
- Differentiate the genioglossus from the following muscles. Note the difference in the orientation fibres and the fascial plane between them.
  - Geniohyoid
  - Mylohyoid
- Identify the following nerves and structures:
  - Trigeminal ganglion









ANAT3004 – Cranial and Cervical Anatomy – Week 11, 2024

Oral Cavity

PRACTICAL SUMMARY

What you will cover in this practical:

- Revise features of the skull relevant to blood vessels
- Identify the features of the vestibule and oral cavity proper
- Identify the regions of the oral and pharyngeal tongue
- Identify the muscles of the tongue
- Identify the regions of the palate and muscles of the soft palate
- Identify the extrinsic salivary glands
- Identify the glossopharyngeal (CN IX) and hypoglossal nerves (CN XII) in the neck

The **Anatomy Video Resource** that is offered on the ANAT3004 site on Canvas accompanies this Practical Workbook. Use the Practical Resources available, as well as your lecture notes, the Wilson Museum (online), the images at the end of the worksheets, anatomy textbooks/atlas to locate and identify relevant structures. Please complete the following worksheet.

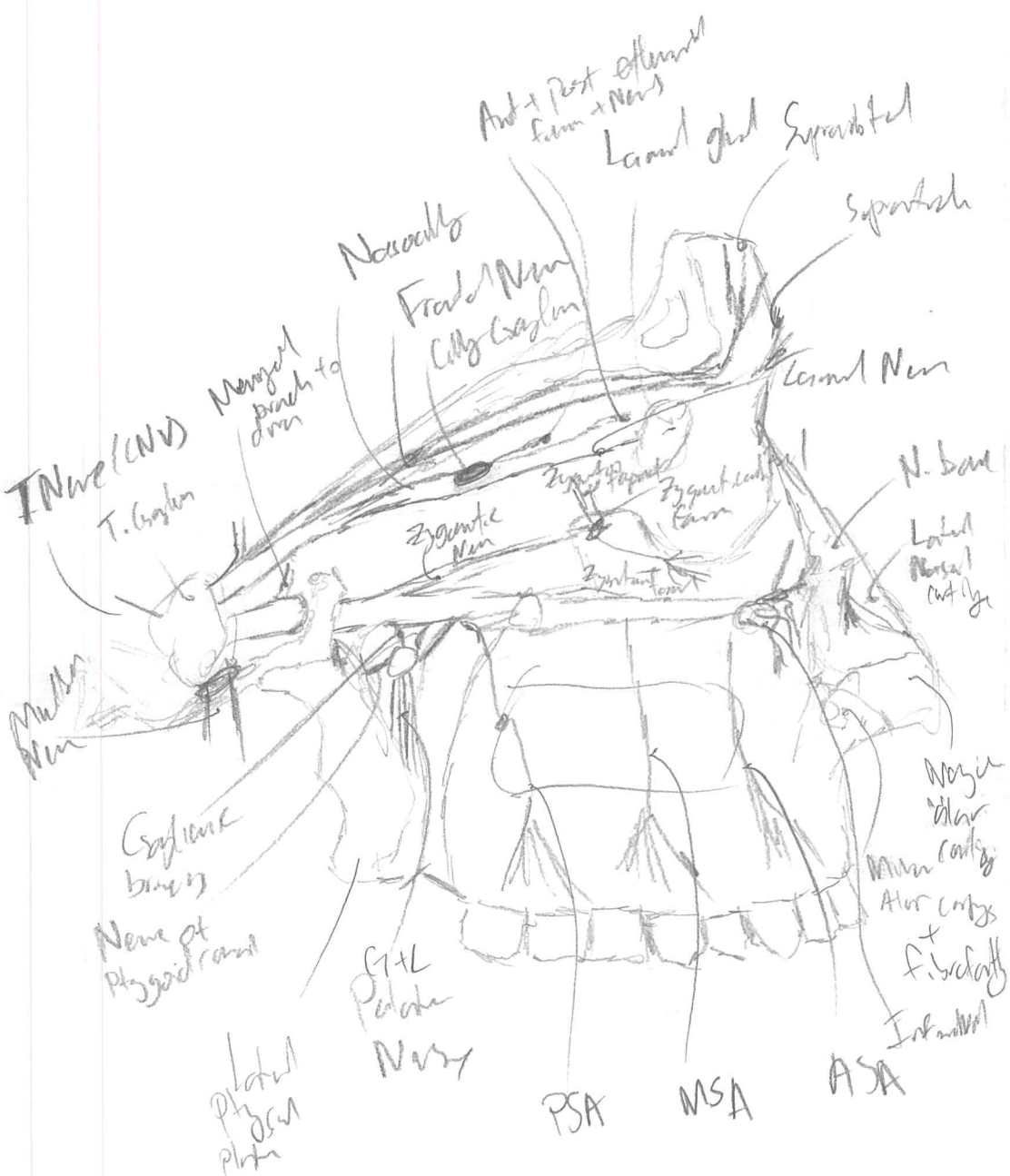
ACTIVITY 1 – VESTIBULE AND ORAL CAVITY PROPER

- Identify the vestibule and oral cavity proper
- Identify and list the boundaries of the oral cavity proper
  - Anterolateral: Teeth / Superior and inf Alveolar processes
  - Posterior: oropharyngeal isthmus (palatoglossal arches)
  - Superior: Hard + soft palate
  - Inferior: tongue + root of tongue, alveolar lingual sulcus, mylohyoid

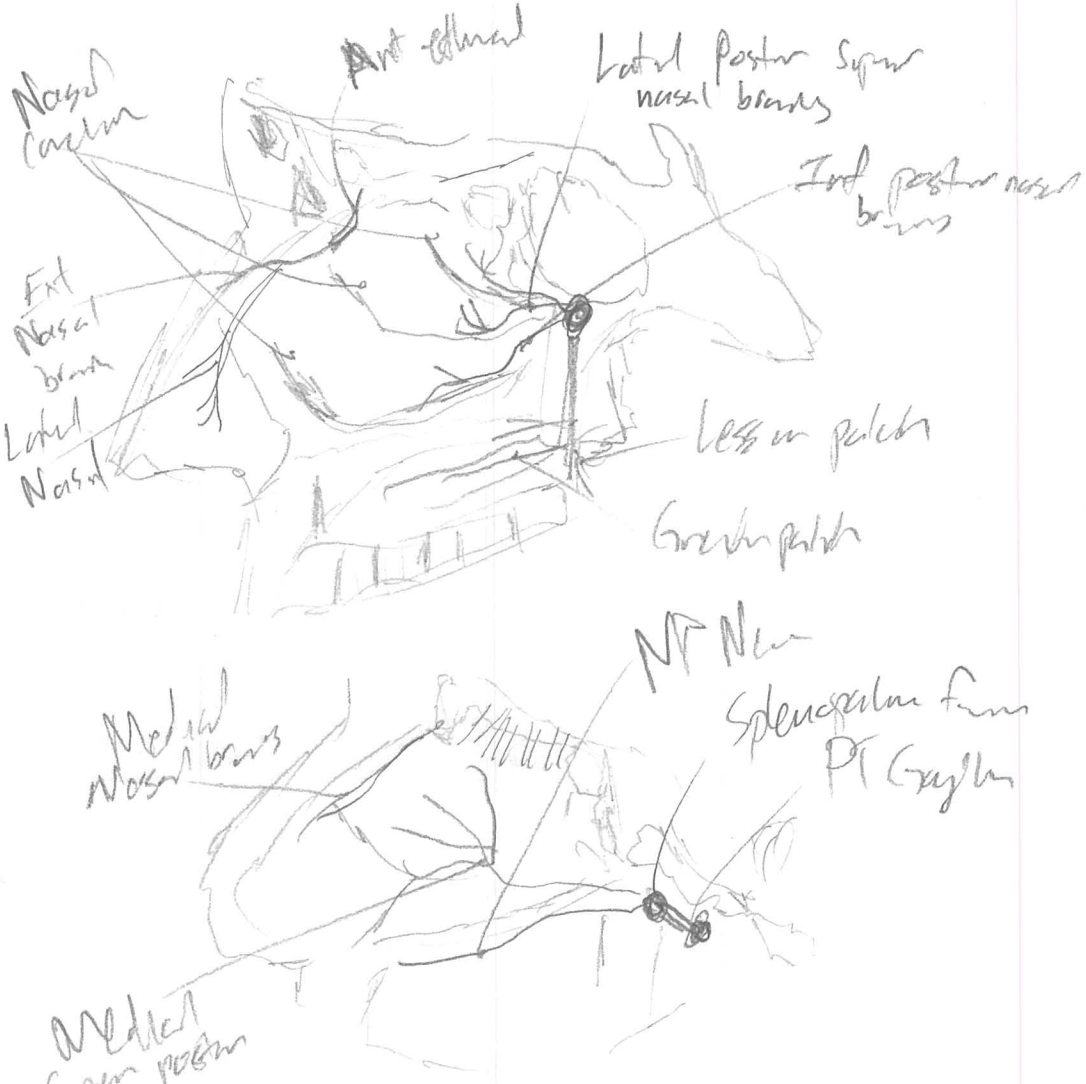
ACTIVITY 2 – TONGUE

- Identify and list the anatomical structures that divide the oral and pharyngeal tongue Palatoglossal folds, sulcus terminalis, foramen caecum
- Identify the sublingual fold on the ventral side of the tongue
  - What anatomical cavity is this fold found in? Alveolar lingual sulcus
  - Describe how the sublingual and submandibular ducts are associated with the sublingual fold. drain into them
- Identify the following features and complete the following table:

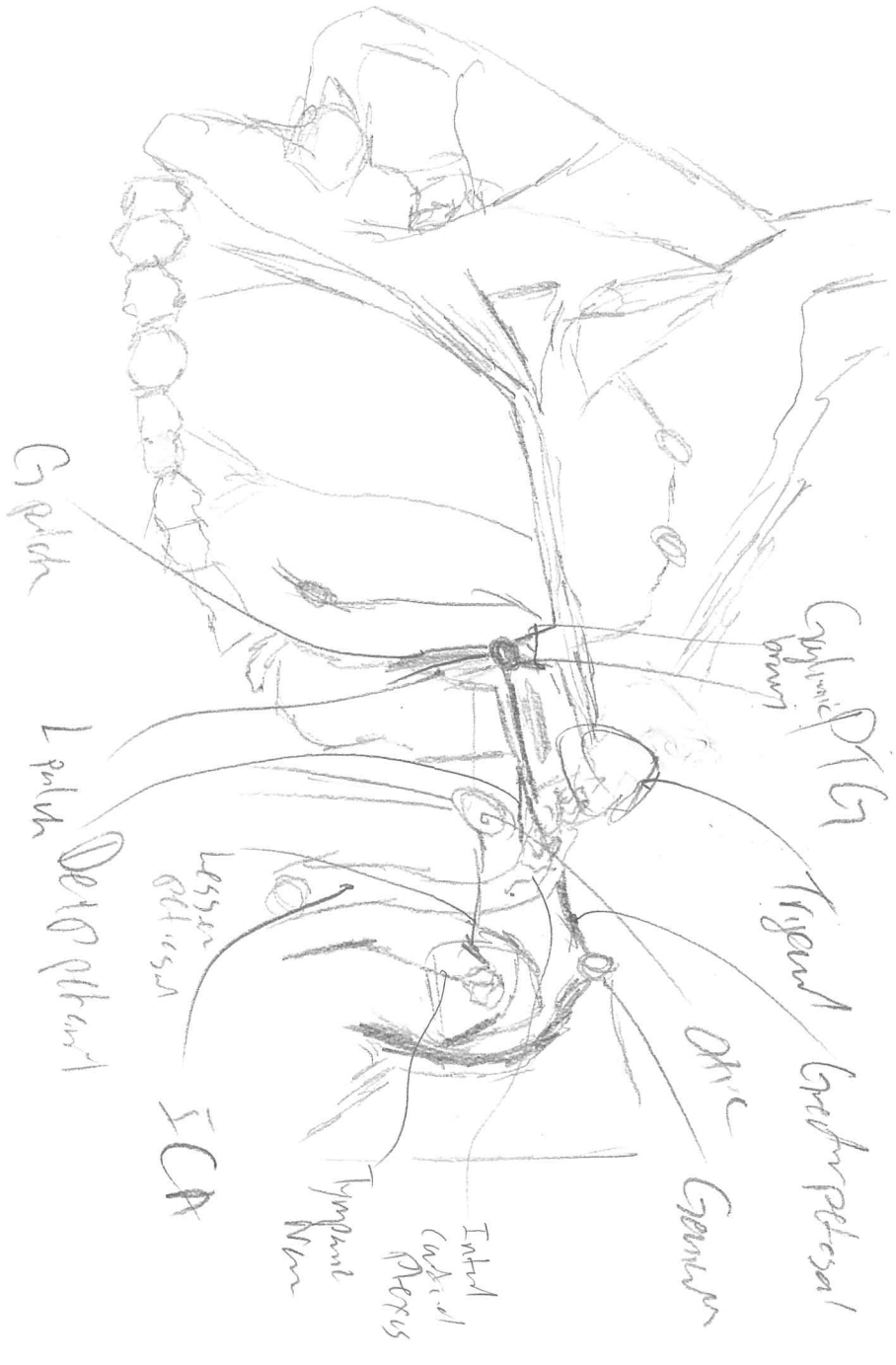
Maxillary Nerve



Nerves of nasal cavity



facial path



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