

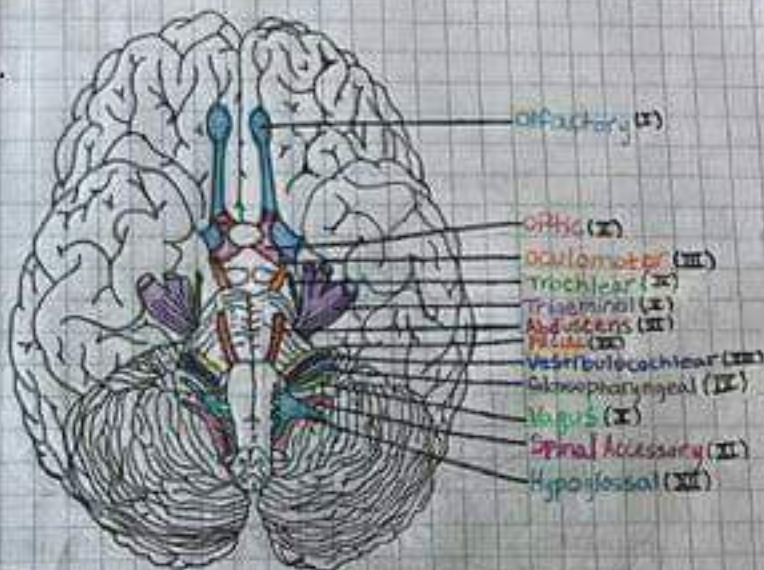
lobes of the Brain:

- ① **FRONTAL:** CONTROLS VOLUNTARY MOVEMENTS & PSYCHOMOTOR SKILLS
- ② **PARIETAL:** CONTROLS CONSCIOUS PERCEPTION, LOCALIZATION OF PAIN, TOUCH AND TEMPERATURE.
- ③ **OCCIPITAL:** CONTROLS VISUAL INTERPRETATION.
- ④ **TEMPORAL:** AUDITORY, BEHAVIOR & MEMORY FUNCTIONS

The 12 Cranial Nerves!

Page 2

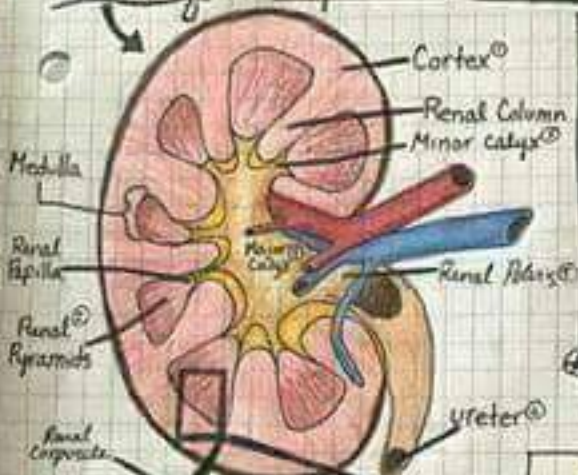
O.O.O.T.T.A.F.V.V.X.V.S.H.



FUNCTIONS!:

- I: Smell
- II: Vision
- III: Eye movement; Pupil
- IV: Eye movement
- V: Chewing, head, and teeth sensations
- VI: eye movement
- VII: Taste (anterior 2/3), face and scalp movement, salivation, and tears
- VIII: Hearing and Balance
- IX: Taste (posterior 1/3), tongue movement, swallowing, and salivation.
- X: G.I tract, respiratory sensory and motor, larynx, Pharynx movements.
- XI: Controls muscles used in head movement.
- XII: Tongue movement.

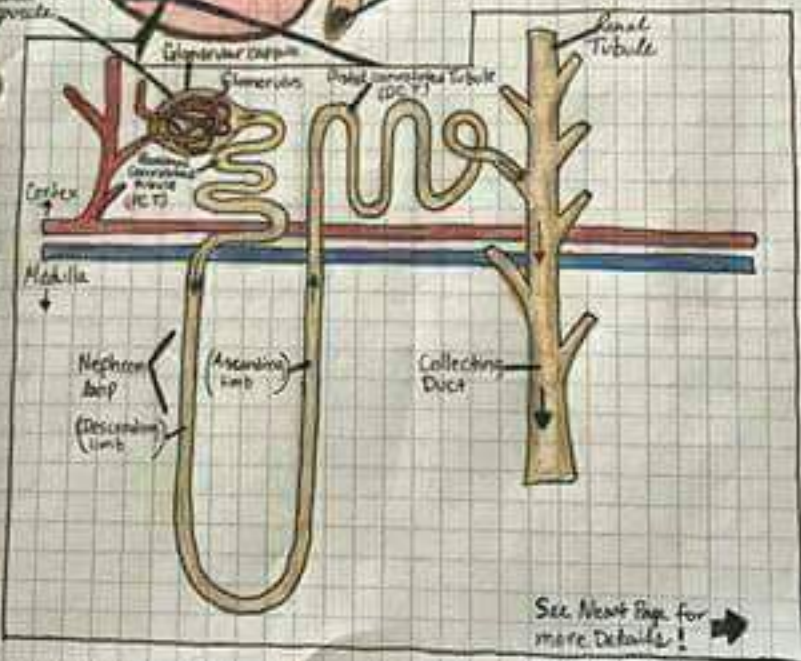
Kidney & Nephron STRUCTURE!



Pathway of urine
Drainage through the kidney:

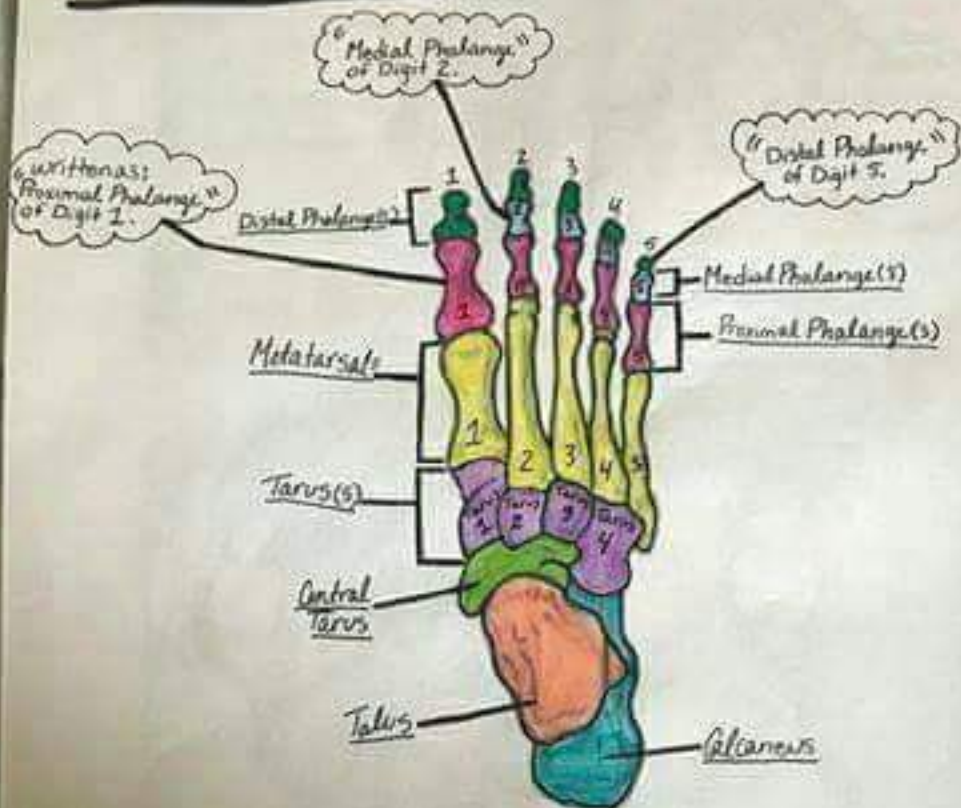
- ↳ Cortex
- ↳ Medullary Pyramid
- ↳ Minor Calyx
- ↳ Major Calyx
- ↳ Renal Pelvis
- ↳ Ureter
- ↳ Urinary bladder (not shown)

↳ Nephron = basic structural & functional unit of the kidney.
↳ urine formation

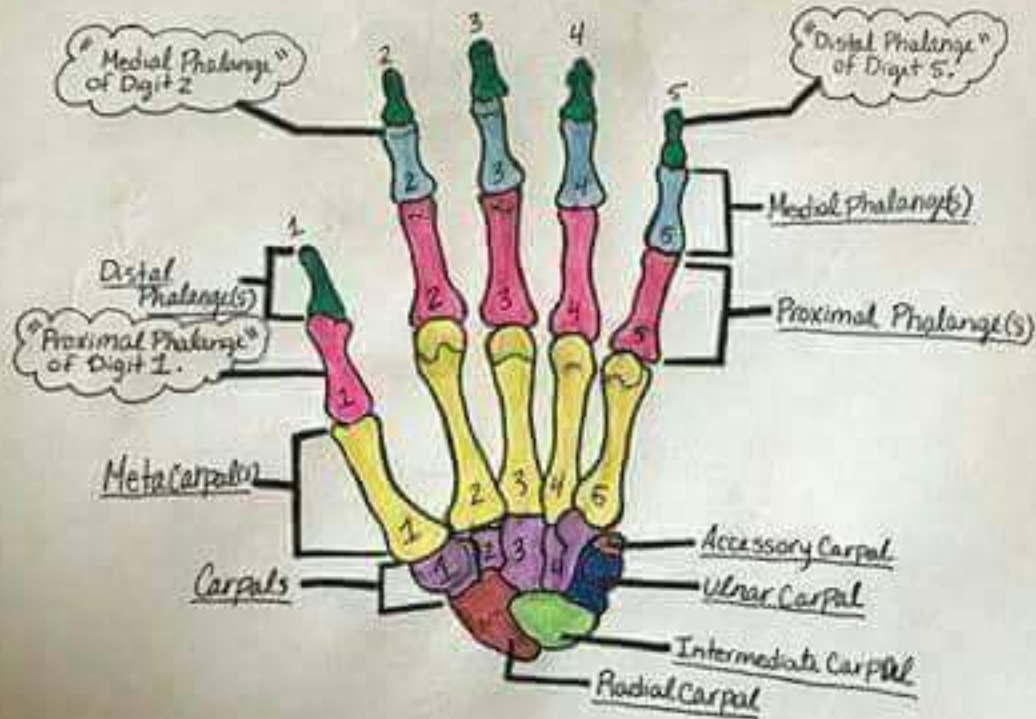


See Next Page for more details! ➔

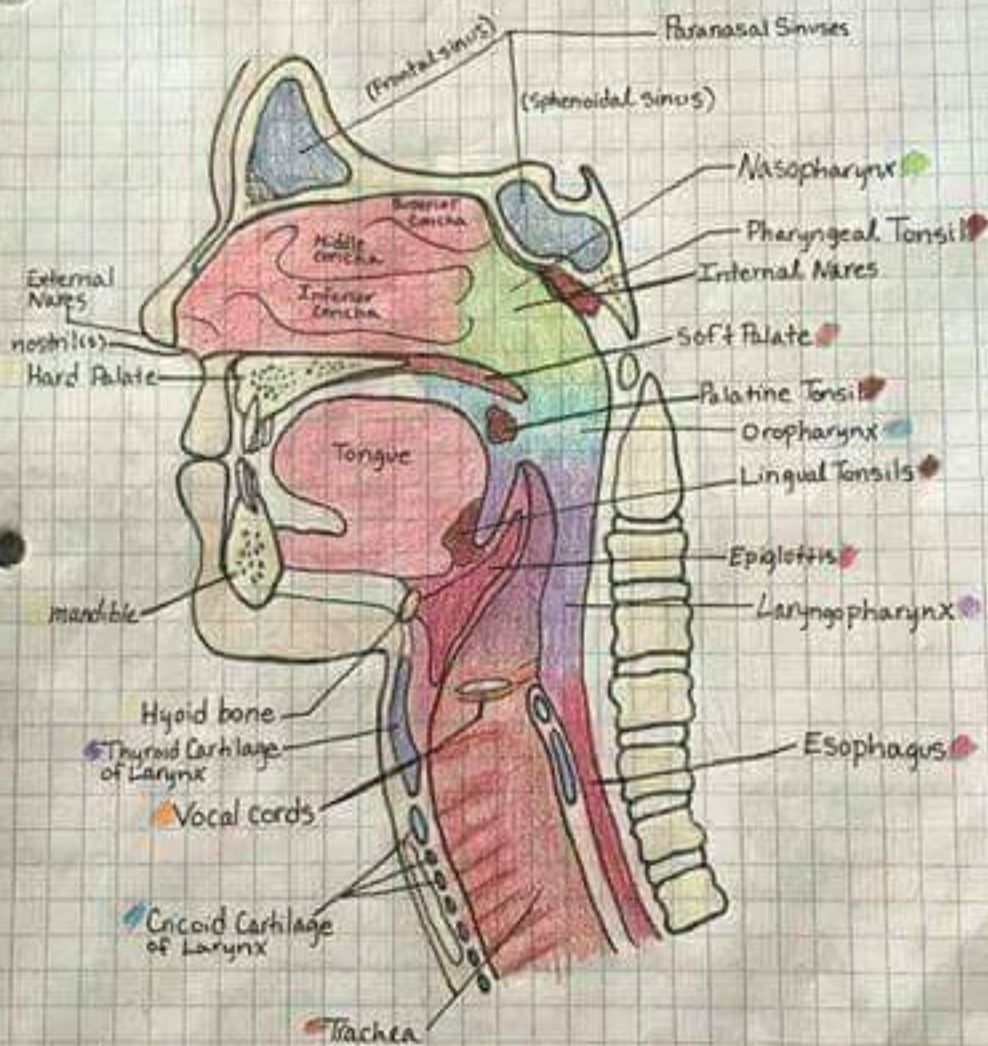
Foot:



HAND:



Upper Respiratory System :



Cranial Nerve

Sphenoidal fissure: 3, 4, 6, ophthalmic
 Foramen caecum, V₆
 Foramen rotundum, V₂
 Internal acoustic meatus, V₈ & V₉
 Jugular foramen: 9, 10, 11, 12
 Hypoglossal canal - 12

TRIGEMINAL V

V₁ OPTHALMIC Superior orbital fissure
 - sense of feeling from eyes up.
 - Ans parasympathetic to lacrimal gland.
 V₂ MAXILLARY Foramen rotundum
 - sense of feeling on middle of face & upper teeth
 V₃ MANDIBULAR Foramen ovale
 - sense of feeling on lower jaw & teeth

FACIAL VI

SENSORY: TASTE
 somatic sensory: sensation to part of exterior
 visceral sensory: taste from ant. 2/3 tongue, hard and soft palate.
 somatic motor: muscles of facial expression.
 visceral motor: lacrimal, submandibular, sublingual glands and mucous glands of mouth and nose.

Internal acoustic meatus

IX GLOSSOPHARYNGEAL

SENSORY: TASTE (tongue back of line)
 somatic motor - swallowing
 Jugular foramen (naso foramen magnam)
 VAGUS X 'wanderer' (longest)

Sensory: Taste buds in pharynx and epiglottis, proprioceptor in neck and throat muscles, visceral afferent from aorta.
 motor: smooth muscle of pharynx, larynx and most of GIT
 Swallowing, coughing, and speech
 slow rate heart and secretion of digestive fluids

Jugular foramen

OLFACTORY I

SMELL: SENSORY
 olfactory foramina in the cribriform plate and crista galli of the ethmoid bone.

OPTIC II

SIGHT: SENSORY
 optic canal

OCULOMOTOR III

somatic -> move 4 of the eye muscles
 Ans parasympathetic -> contract ciliary body
 Superior orbital fissure
 bend lens
 constrict pupil

TROCHLEAR IV (scant)

Somatic -> controls superior oblique eye muscle
 Superior orbital fissure

ABDUCENS VI

Somatic -> lateral rectus eye muscle
 Superior orbital fissure

VESTIBULOCOCHLEAR VIII

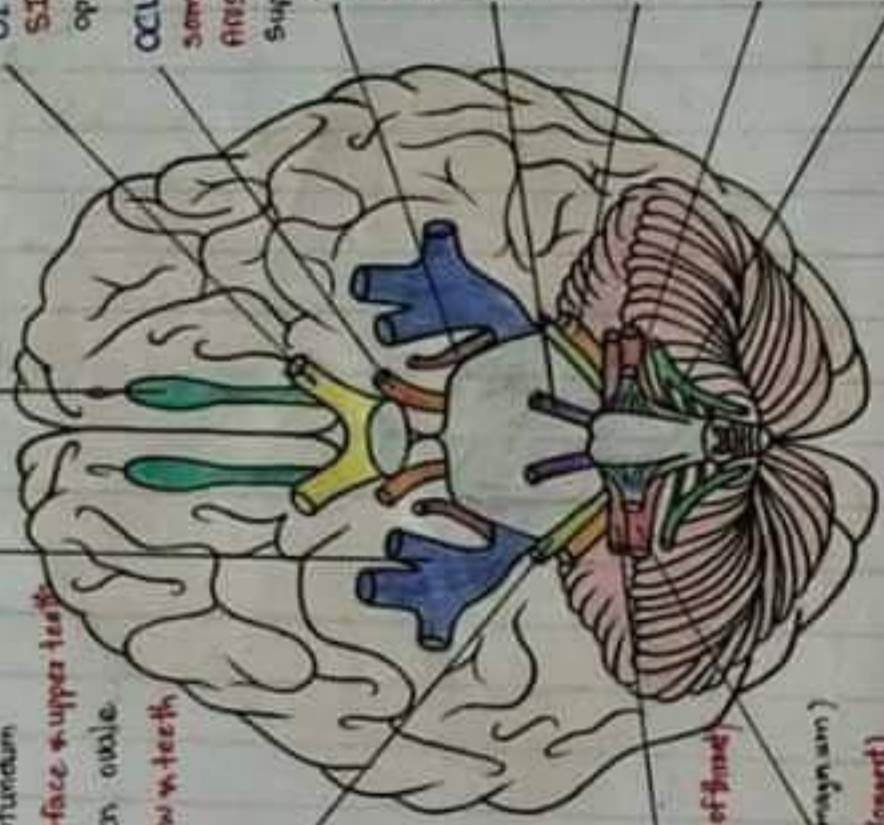
SENSORY: HEARING AND BALANCE
 Internal acoustic meatus

HYPOGLOSSAL XII

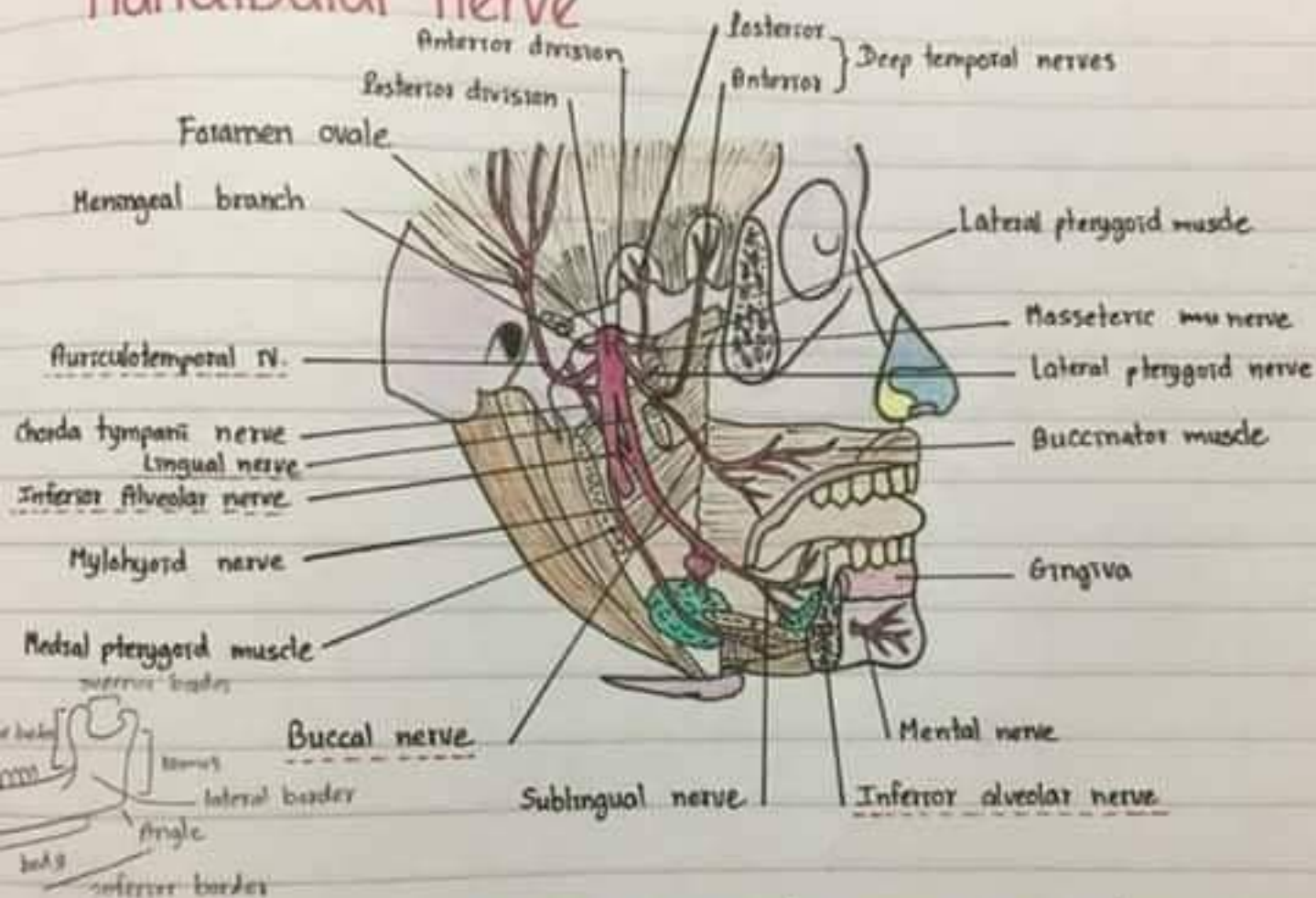
Somatic motor: tongue
 Hypoglossal canal

ACCESSORY XI

Somatic motor: sternocleidomastoid Trapezius
 Jugular Foramen



Mandibular nerve



Mandibular division is a mixed nerve, though mainly sensory. It passes through foramen ovale in the infratemporal fossa. Motor branches for muscle of mastication leave trunk in the fossa. It gives off several sensory branches. It gives off branches = + (Anterior Division

Cranial Nerve

TRIGEMINAL V

- OPHTHALMIC** Superior orbital fissure
Sense of feeling from eyes up.
Parasympathetic to lacrimal gland
- MAXILLARY** Foramen rotundum
Sense of feeling on middle of face & upper teeth
- MANDIBULAR** Foramen ovale
Sense of feeling on lower jaw & teeth

GLOSSOPHARYNGEAL IX

- SENSORY: TASTE**
Sensation to part of ext. ear
Sensation from ant. 2/3 tongue,
hard and soft palate.
- Control of facial expression:
mental, submandibular,
sublingual glands and mucous
membranes of mouth and nose.
- Internal acoustic meatus

VAGUS X

- SENSORY: TASTE** (tongue back of throat)
- MOTOR** - swallowing
- Foramen (vestibular foramen magnum)
- 'Wanderer' (longest)
- Sense buds in pharynx and epiglottis, proprioceptor in neck and throat muscles, visceral and somatic motor in arch of the aorta.
- Control muscle of pharynx, larynx and most of GIT
(esophagus, stomach, small intestine, gall bladder)
- Control rate heart and secretion of digestive fluids
- Foramen

OLFACTORY I

- SMELL: SENSORY**
- Olfactory foramina in the cribriform plate and crista galli of the ethmoid bone

OPTIC II

SIGHT: SENSORY
optic canal

OCULOMOTOR III

SOMATIC → move 4 of eye
ANS parasympathetic
Superior orbital fissure

TROCHLEAR IV

SOMATIC → control
Superior orbital fissure

ABDUCENS VI

SOMATIC → lateral rectus
Superior orbital fissure

VESTIBULOCOCHLEAR VIII

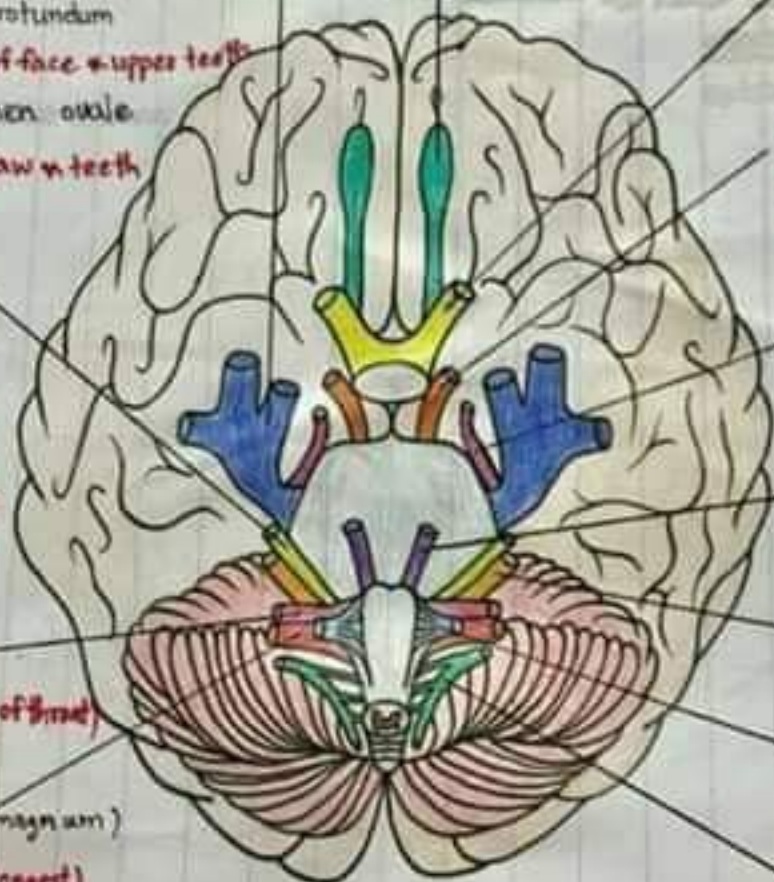
SENSORY: HEARING & BALANCE

HYPOGLOSSAL XII

SOMATIC MOTOR
Hypoglossal canal

ACCESSORY XI

SOMATIC MOTOR
Jugular foramen



ACCESS

CAVITY

PREPARATION

A series of hand-drawn diagrams illustrating the stages of access, cavity, and preparation for maxillary teeth. The top row shows seven teeth from a buccal view, with red indicating the pulp space and grey indicating the root. The second row shows seven corresponding cross-sectional views of the teeth, showing the internal pulp chamber and root canal. The diagrams progress from simple single-rooted teeth to more complex multi-rooted teeth.

MAXILLARY

A series of hand-drawn diagrams illustrating the stages of access, cavity, and preparation for mandibular teeth. The top row shows seven teeth from a lingual view, with red indicating the pulp space and grey indicating the root. The second row shows seven corresponding cross-sectional views of the teeth, showing the internal pulp chamber and root canal. The diagrams progress from simple single-rooted teeth to more complex multi-rooted teeth.

MANDIBULAR

Types of nerve Anesthesia

@Teng

Maxillary

- Anterior superior alveolar block (ASA)
- Middle superior alveolar block (MSA)
- Anterior superior alveolar block (ASA)
- Greater palatine block (GP)
- Infraorbital block (IO)
- Nasopalatine block (NP)

Mandibular

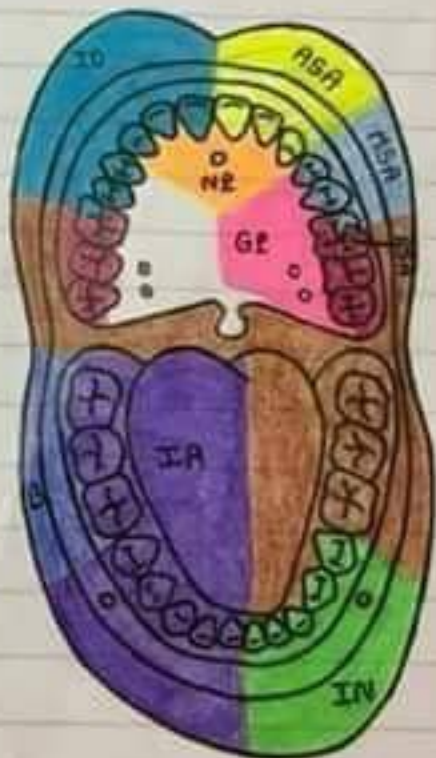
- Inferior alveolar block (IA)
- Buccal block (B)
- Mental block (M)
- Incisive block (IN)
- Gow-Gates mandibular nerve block

Type of injection procedure

- **nerve block** depositing the LA solution within proximity to a main nerve trunk.
- **field block** depositing in proximity to the larger nerve branches.
- **Local infiltration** small terminal nerve ending are anaesthetized.

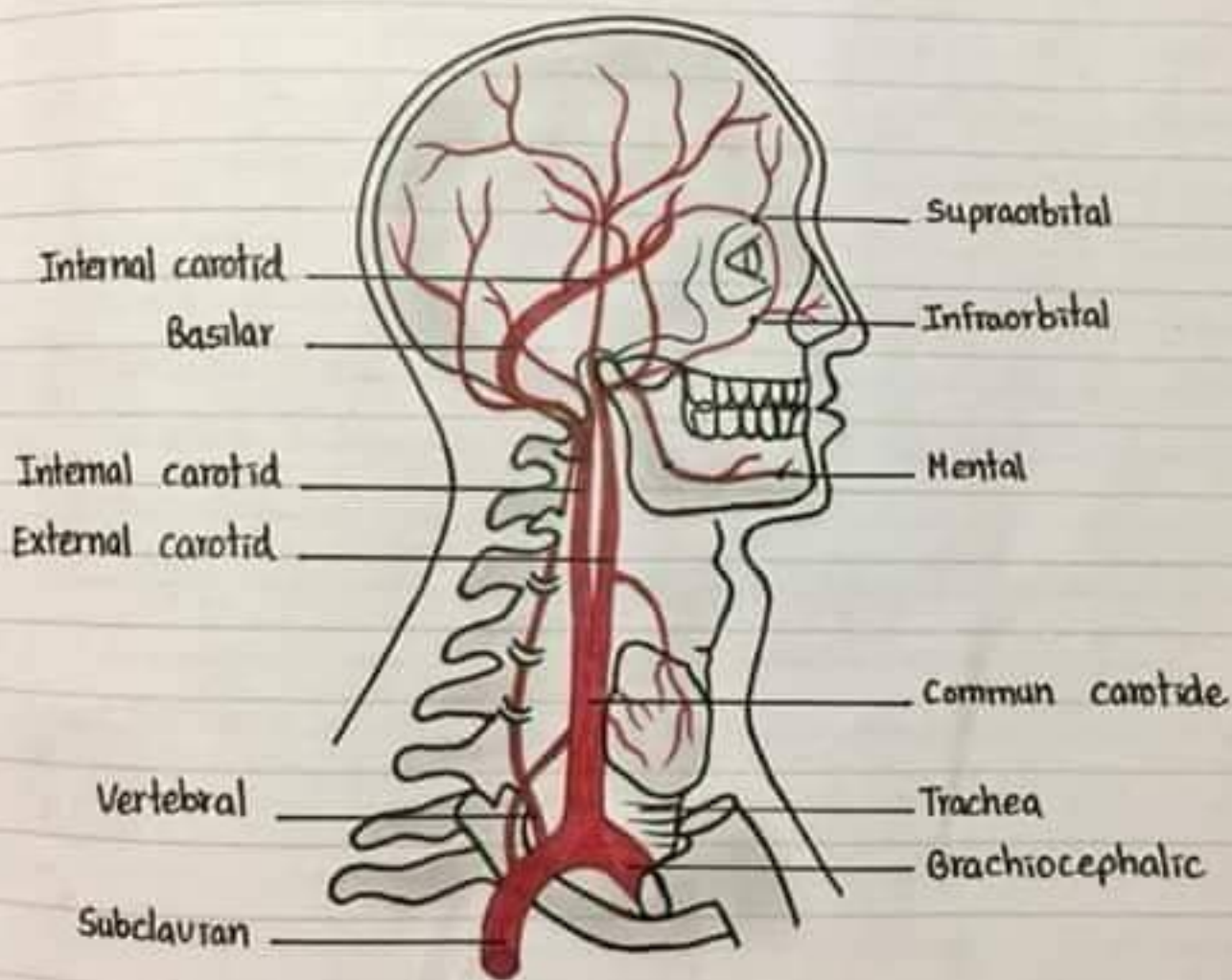
Maxillary nerve anesthesia

- **ASA block** for mx. molar and buccal tissue.
- **MSA block** for mx. premolars and buccal tissue.
- **ASA block** for mx. canine and incisors.
- **GP block** for palatal tissue distal to the mx. canine in one quadrant.
- **NP block** for palatal tissue between the left and the right mx. canines.



• **IAN** - inferior alveolar nerve block (closing mouth)

ARTERIAL SUPPLY TO THE HEAD AND NECK





Nerve

Arterial

Vein

nerve

frontalis

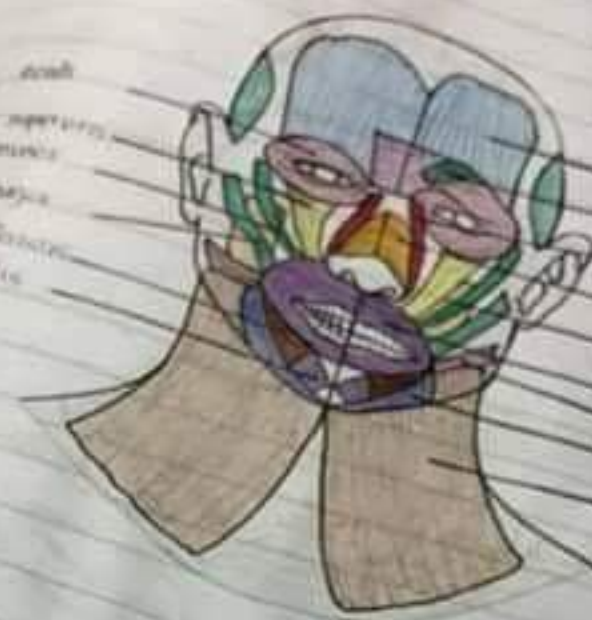
orbicularis oculi

nasalis

orbicularis oris

mentalis

mentalis



frontalis

Orbicularis superciliaris

Levator labii superioris

Nasalis

Levator anguli oris

Orbicularis oris

Risorius

Depressor anguli oris

Mentalis

frontalis

orbicularis oculi

nasalis

orbicularis oris

zygomaticus minor

zygomaticus major

buccinator

risorius

mentalis

mentalis

mentalis

mentalis

mentalis



glenoid fossa

Temporalis

Condylar head

Superior auricular

Inferior auricular

Anterior auricular

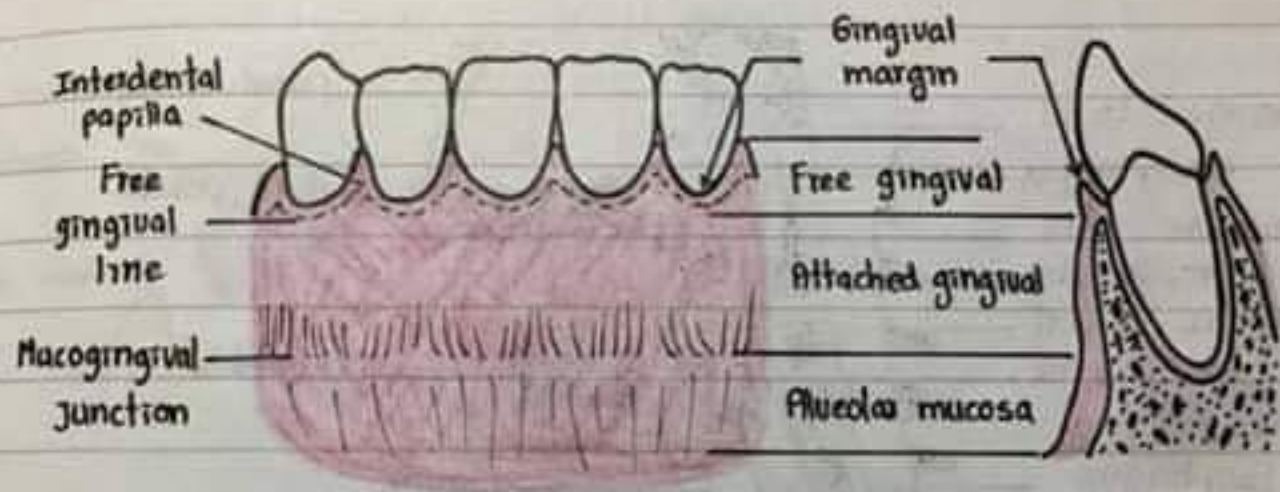
Masseter

Sternocleidomastoid

Trapezius

Trapezius

BOUNDARIES OF THE GINGIVA



Interdental papilla the triangular wedge of gingiva between two adjacent teeth

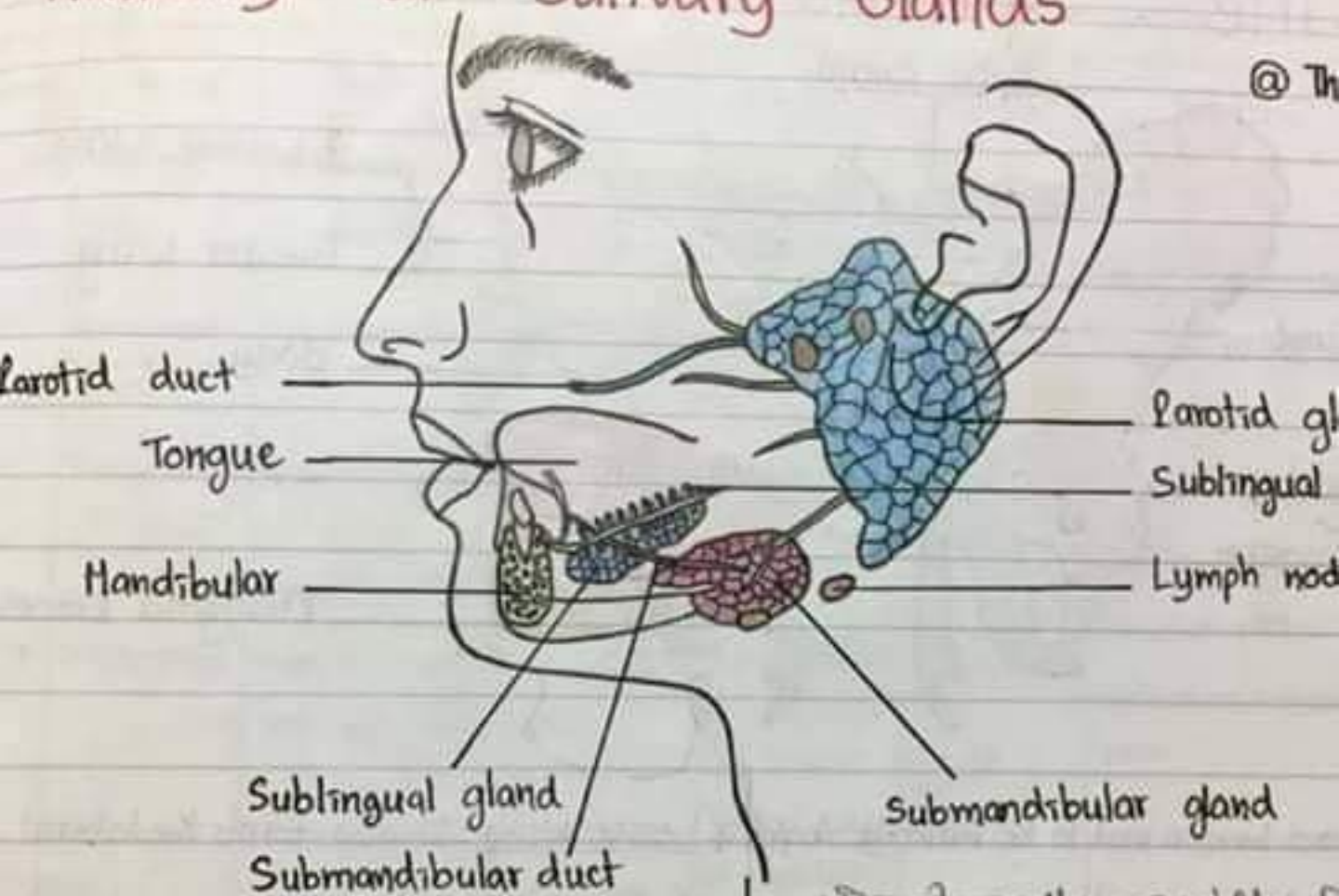
Gingival margin is the interface between the **sulcular epithelium** and oral cavity. This interface exists at the most coronal point of gingiva.

Free gingival the portion of the gingiva that surrounds the tooth, but is not directly attached to the tooth surface, the outer wall of gingiva.

Attached gingiva the portion of the gingiva which is firm and resilient, and is bound to the underlying cementum and alveolar bone.

It is also called **alveolar mucosa**.

Anatomy of Salivary Glands



There are several glands associated with the oral cavity that secrete saliva :

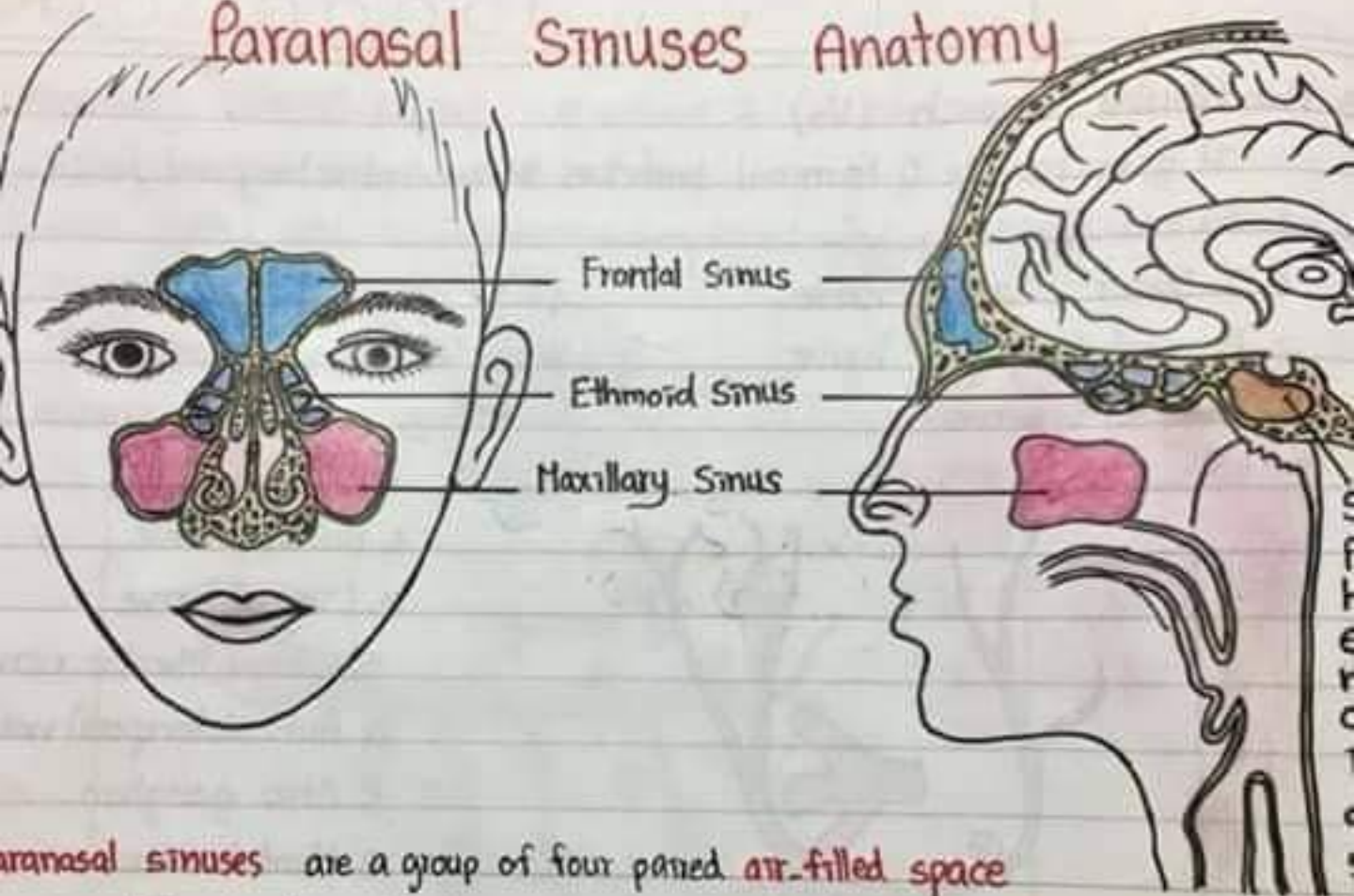
Major salivary glands :

1. Parotid gland

+ The submandibular gland :
The submandibular gland provides 60-67% of saliva. It is about the size of a walnut. Its duct runs under the mylohyoid muscle on the oral cavity floor and

@Theng

Paranasal Sinuses Anatomy



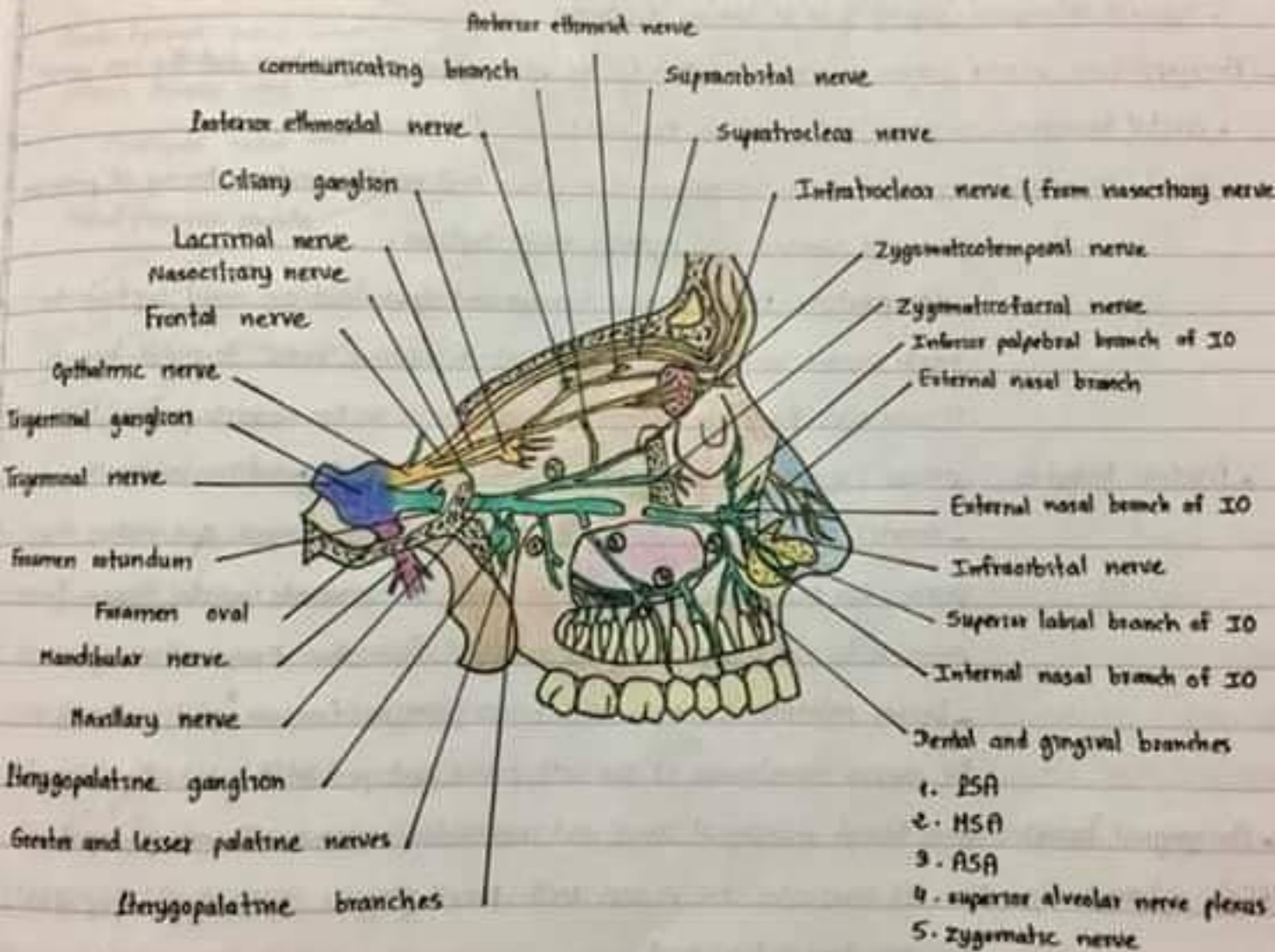
Paranasal sinuses are a group of four paired air-filled spaces that surround the nasal cavity. They are named for the facial bone which they are located. They are lined with respiratory epithelium (ciliated pseudostratified columnar epithelium).

Structure

Maxillary sinuses are the largest of the PS

Function

The biological role of the sinuses is debated



Ophthalmic nerve

TOOTH ANOMALIES



Flexion



Dilaceration



Concrescence



Fusion



Dwarfed roots



Accessory roots



Hypercementosis



Enamel pearl

Flexion - deviation or bend restricted just to the portion of root.
 - usually bend is less than 90°
 - result of trauma to develop tooth

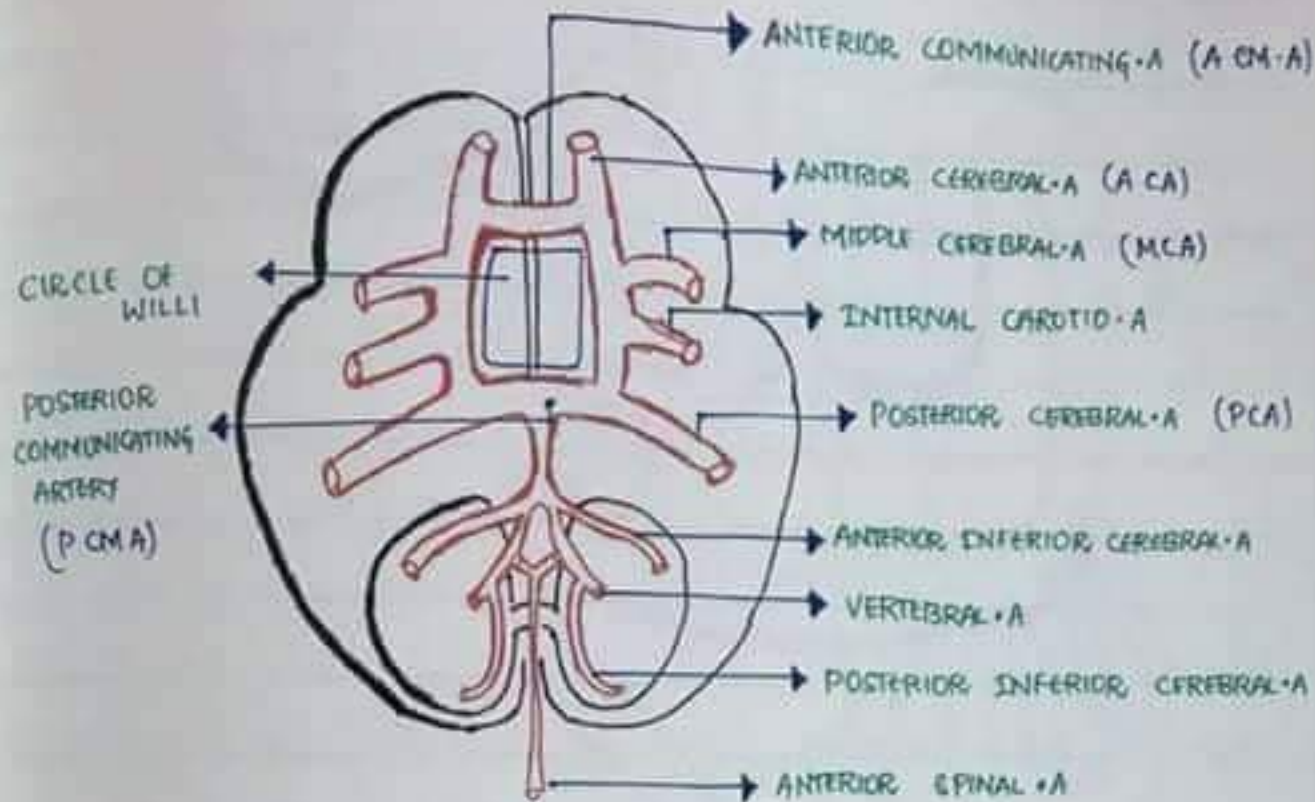
Dilaceration - angulation or a sharp bend or curve in root or crown of formed tooth

Concrescence - often involves a 2nd molar tooth

Dwarfed root - roots are short in comparison to the crowns.

Hypercementosis - an abnormal thickening of the root surface.
 - periapical inflammation
 - hyperocclusion or fracture

Enamel pearl - occur most commonly on the root surface.
 - bifurcation or trifurcation



CEREBRAL CIRCULATION

MIDDLE CEREBRAL ARTERIES SUPPLY TO LATERAL PART OF CEREBRAL HEMISPHERES.

ANTERIOR CEREBRAL A SUPPLIES → FRONTAL LOBES, SUPERIOR PARIETAL LOBES

POSTERIOR CEREBRAL A SUPPLIES → OCCIPITAL LOBE, INFERIOR TEMPORAL LOBE

MIDDLE CEREBRAL A SUPPLIES → FRONTAL LOBE, LATERAL PART OF TEMPORAL, PARIETAL LOBES
TEMPORAL AND SUPERIOR PART OF

CIRCLE OF WILLI FORMED BY

a) A.C.M.A	d) P.C.A
b) A.C.A	e) P.C.M.A
c) M.C.A	

Hemofilia Diátesis hemorrágicas



- Pielonefritis
- Cáncer renal
- Poliquistosis
- Uronefrosis
- Tuberculosis

- Nefropatía hemorrágica
- Papilitis necrótica
- Tumor de vía excretora
- Angioma
- Litiasis
- Ptosis renal

Litiasis ureteral



- Ureteritis quística
- Periureteritis
- Tumor de uréter

Apendicitis

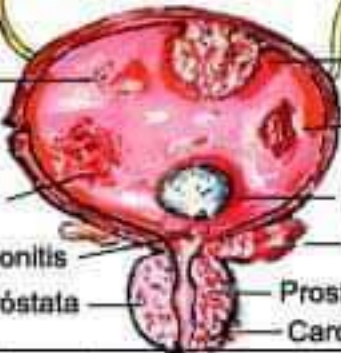
Úlcera de Hunner

Traumatismo vesical

Cistitis

Uretrotrigonitis

Adenoma de la próstata



Tumor de vejiga

Várices vesicales

Litiasis vesical

Espermocistitis

Prostatitis

Carcinoma de próstata

Papiloma de uretra

Tumor de uretra

Uretritis

Estrechez uretral

Traumatismo de uretra

HEMOURETRORRAGIA

