

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

In the name of Allah, the most gracious, the most merciful



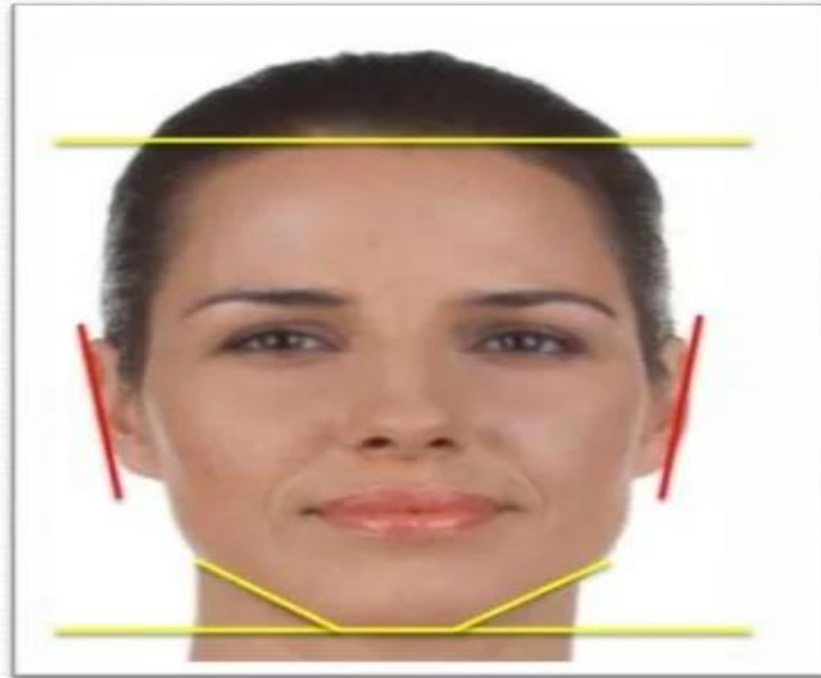
FACE (MUSCLES OF FASCIAL EXPRESSIONS)

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INTRODUCTION

- **Boundaries of face or Countenance**
 - superiorly to hair line, inferiorly to the chin & the base of mandible & on each side of auricle.



SKIN-

- The facial skin is **very vascular** because of which wounds of face bleed profusely but heal rapidly.
- The facial skin is rich in sebaceous and sweat glands.
- Sebaceous glands keeps the face oily to prevent loss of moisture, but also cause acne in adults & sweat glands helps in body temperature regulation.

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- Laxity of the greater part of the facial skin facilitates rapid spread of edema.
 - Boils in the nose and ear are acutely painful due to the fixity of the skin to the underlying cartilages.
 - Facial skin is very elastic and thick because of facial muscles are inserted into it so that facial wounds tends to gape.

SUPERFICIAL FASCIA-

Contains-

- Facial muscles
- Vessels & nerves
- A variable amount of fat. which is absent in the eyelids but well developed in the cheeks, forming the buccal pads that are very prominent in infants help in suckling.
- **Deep fascia** is absent in the face, **except** over the parotid gland where it forms the **parotid fascia** & over the buccinator forms the **bucco pharyngeal fascia**.

Muscle	Origin	Insertion	Action	Cranial Nerve
Muscles of the Mouth				
Orbicularis oris	Extrinsic fibers: from insertions of circumoral muscles	Extrinsic fibers pass around mouth within the lips as a sphincter	Compresses lips against anterior teeth, closes mouth, protrudes lips	VII—zygomatic, buccal, and mandibular branches
	Intrinsic fibers: from incisive fossae of mandible and maxilla	Intrinsic fibers pass obliquely forward and insert into the skin of the lip		
Depressor anguli oris	Oblique line of mandible	Angle of mouth	Depresses angle of mouth	VII—buccal and mandibular branches
Levator anguli oris	Canine fossa of maxilla, below infraorbital foramen	Angle of mouth	Elevates angle of mouth	VII—zygomatic and buccal branches
Zygomaticus major	Zygomatic bone	Angle of mouth	Draws angle of mouth up and back	VII—zygomatic and buccal branches
Risorius	Contributions of platysma fibers, fascia of parotid and masseteric regions	Angle of mouth	Draws angle of mouth laterally	VII—zygomatic and buccal branches



Muscles of the Lips

Levator labii superioris	Angular head: frontal process of maxilla	Alar cartilage and skin of nose	Elevates upper lip, flares nostril	VII—zygomatic and buccal branches
	Infraorbital head: inferior margin of orbit	Upper lip		
	Zygomatic head (zygomaticus minor): zygomatic bone	Nasolabial groove and upper lip		
Depressor labii inferioris	Oblique line of mandible	Lower lip	Depresses lower lip	VII—mandibular branches

Muscle of the Cheek

Buccinator	Pterygomandibular raphe, buccal alveolar processes of maxilla and mandible	Upper fibers cross to insert into lower lip; lower fibers cross to insert into upper lip	Compresses cheeks against molar teeth; sucking and blowing	VII—buccal branches
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Muscle of the Chin

Mentalis	Incisive fossa mandible	Skin of chin	Puckers skin of chin, protrudes lower lip	VII—mandibular branches
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Muscle of the Nose

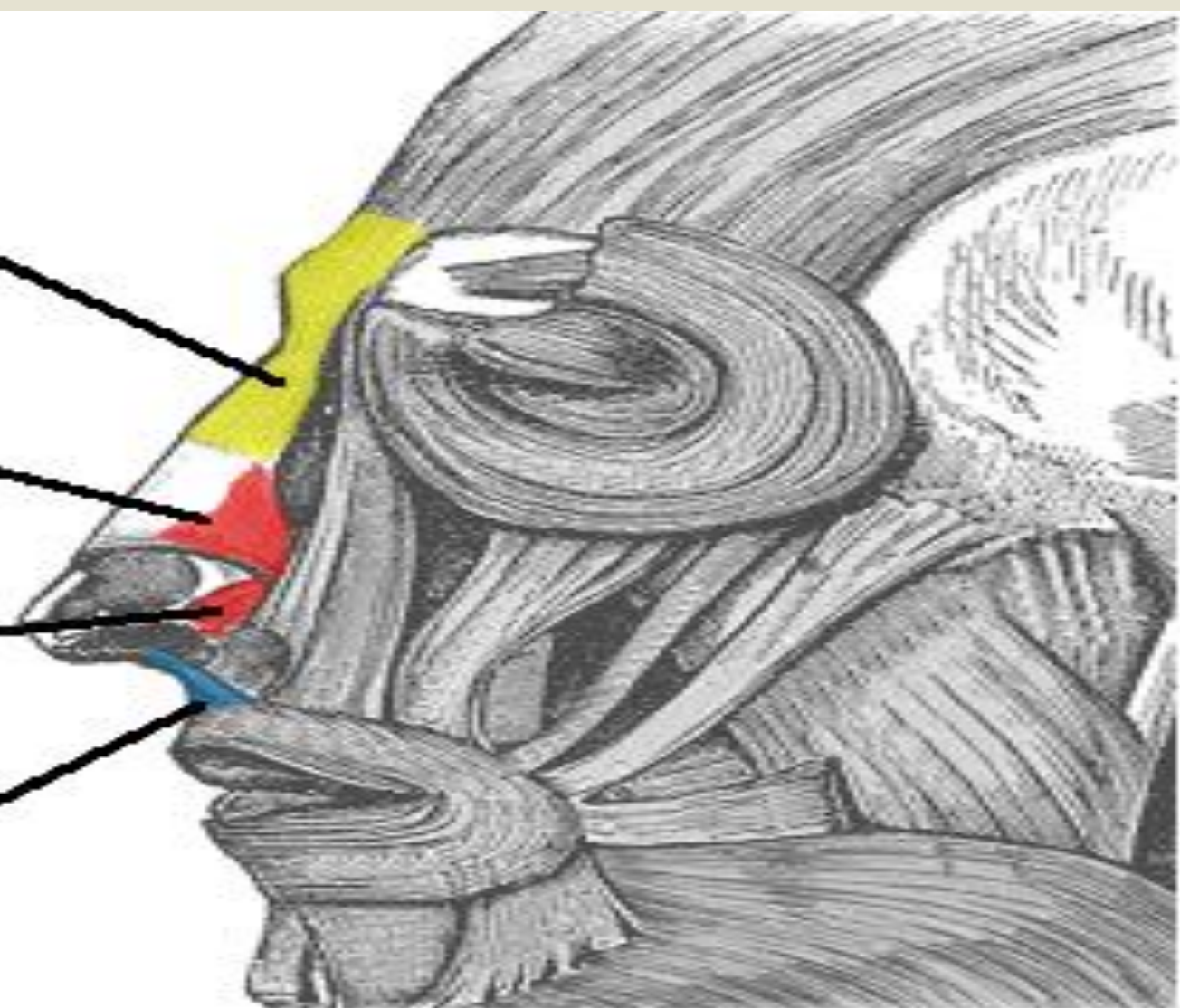
Nasalis	Compressor nares: canine eminence of maxilla	Midline aponeurosis overlying lateral nasal cartilages	(a) Compresses nostrils	VII—zygomatic and buccal branches
	Dilator nares: nasal notch of maxilla	Skin of margin of nostril	(b) Dilates or flares nostrils	

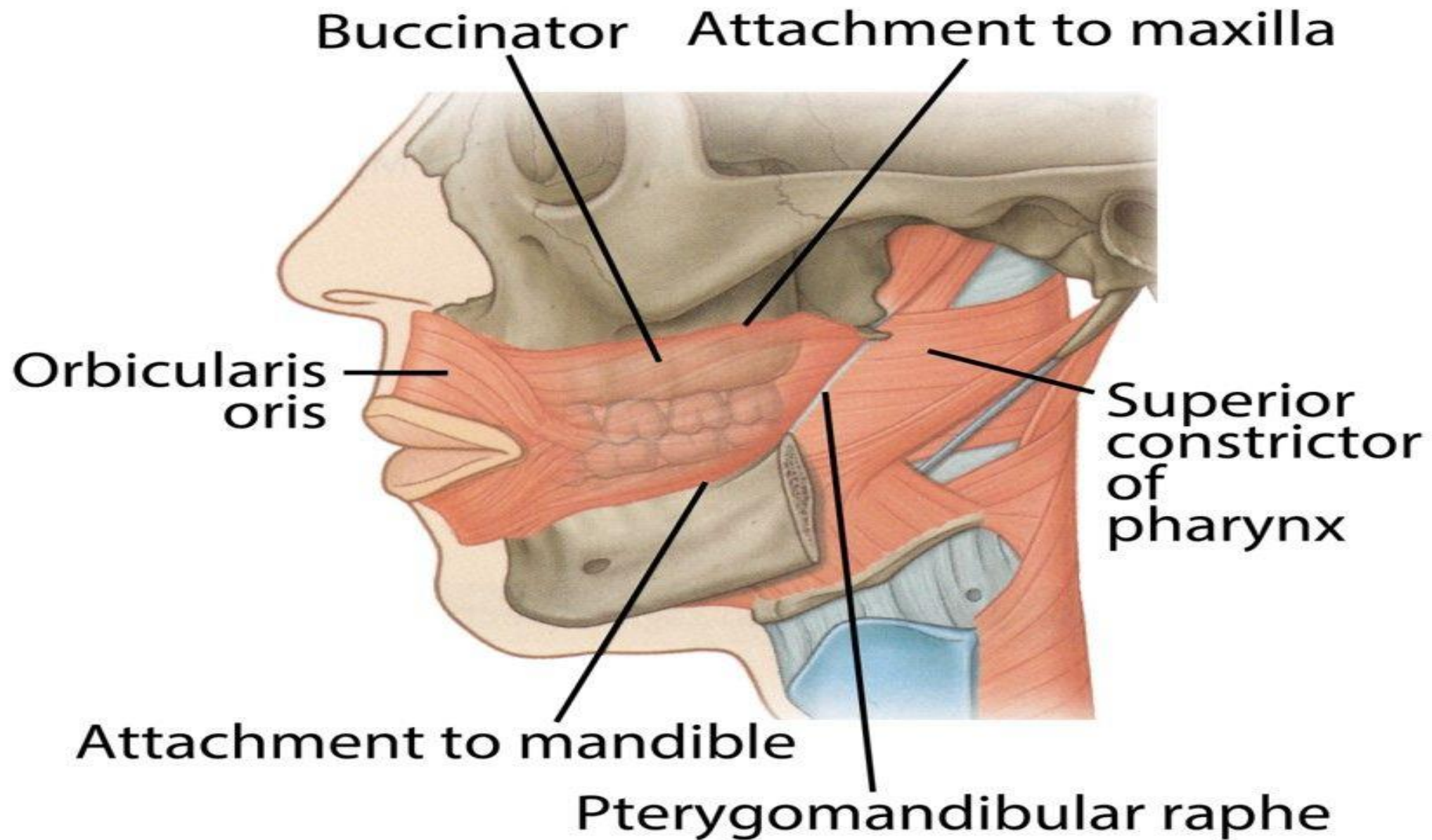
Procerus

Nasalis
(Transverse)

Nasalis
(Alar)

**Depressor
Septi Nasi**





Muscle of the Eye

Orbicularis oculi	Orbital: bone of upper medial orbital margin	Fibers encircle margins of orbit and insert into medial palpebral ligament	(a) Closes eye forcefully	VII—temporal and zygomatic branches
	Palpebral: medial palpebral ligament	Fibers arch laterally through lids and interdigitate laterally in a raphé	(b) Closes eye gently	
	Lacrimal: lacrimal bone behind lacrimal sac	Medial aspect of lids	(c) Squeezes lubricating tears against eyeball	

Muscle	Origin	Insertion	Action	Cranial Nerve
<i>Muscles of the Forehead</i>				
Procerus	Nasal bone and lateral nasal cartilage	Skin of glabella	Transverse wrinkling of bridge of nose	VII—temporal and zygomatic branches
Corrugator	Medial aspect of supraorbital margin	Skin underlying eyebrow	Vertical wrinkling of bridge of nose	VII—temporal branches
Frontalis	Aponeurosis of scalp	Skin of forehead	Pulls scalp up and back	VII—temporal branches
Occipitalis	Lateral two thirds of superior nuchal line, mastoid process	Skin of occipital area	Pulls scalp backward and forward along with occipitalis	VII—posterior auricular branches

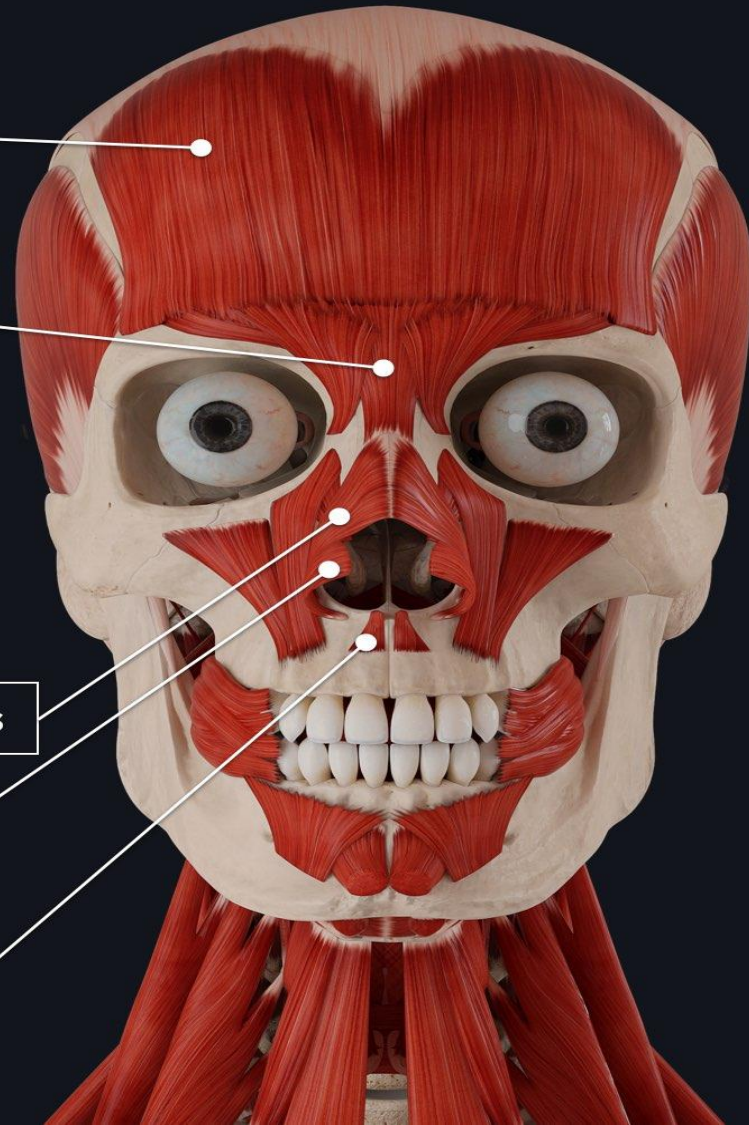
Occipitofrontalis

Procerus

Transverse part of Nasalis

Alar part of Nasalis

Depressor Septi Nasi



Emotion	Main Facial Expressions	Muscles of the face
Happiness	Smile	Zygomaticus Major
	Wide Eyes	Occipito frontalis muscle
	Lifted eyebrows and cheekbones	Buccinator muscle
Anger	Frown and lowered eyebrows	Procerus muscle
	Tightening of the jaw and chin	Mentalis muscle
Surprise	Eyebrows curved high	occipito frontalis muscle
	Wrinkles on the forehead	frontalis muscle
	Wide open mouth	Orbicularis oris muscle
Sadness	Dropped eyelids	Orbicularis oculi muscle
	Corners of the mouth dropped	Depressor labii inferioris muscle

Some of the Muscles used in Facial Expression

Frontalis —————

Levator palpebrae superioris —————

Zygomaticus major and minor ————

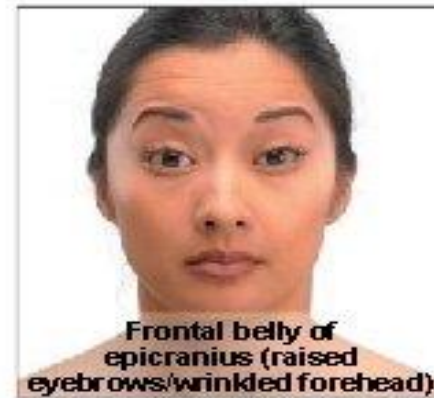
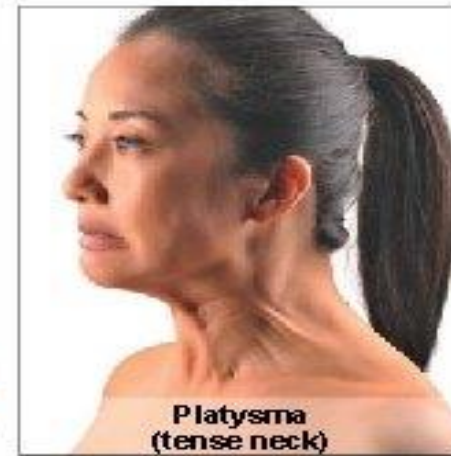
Levator anguli oris —————

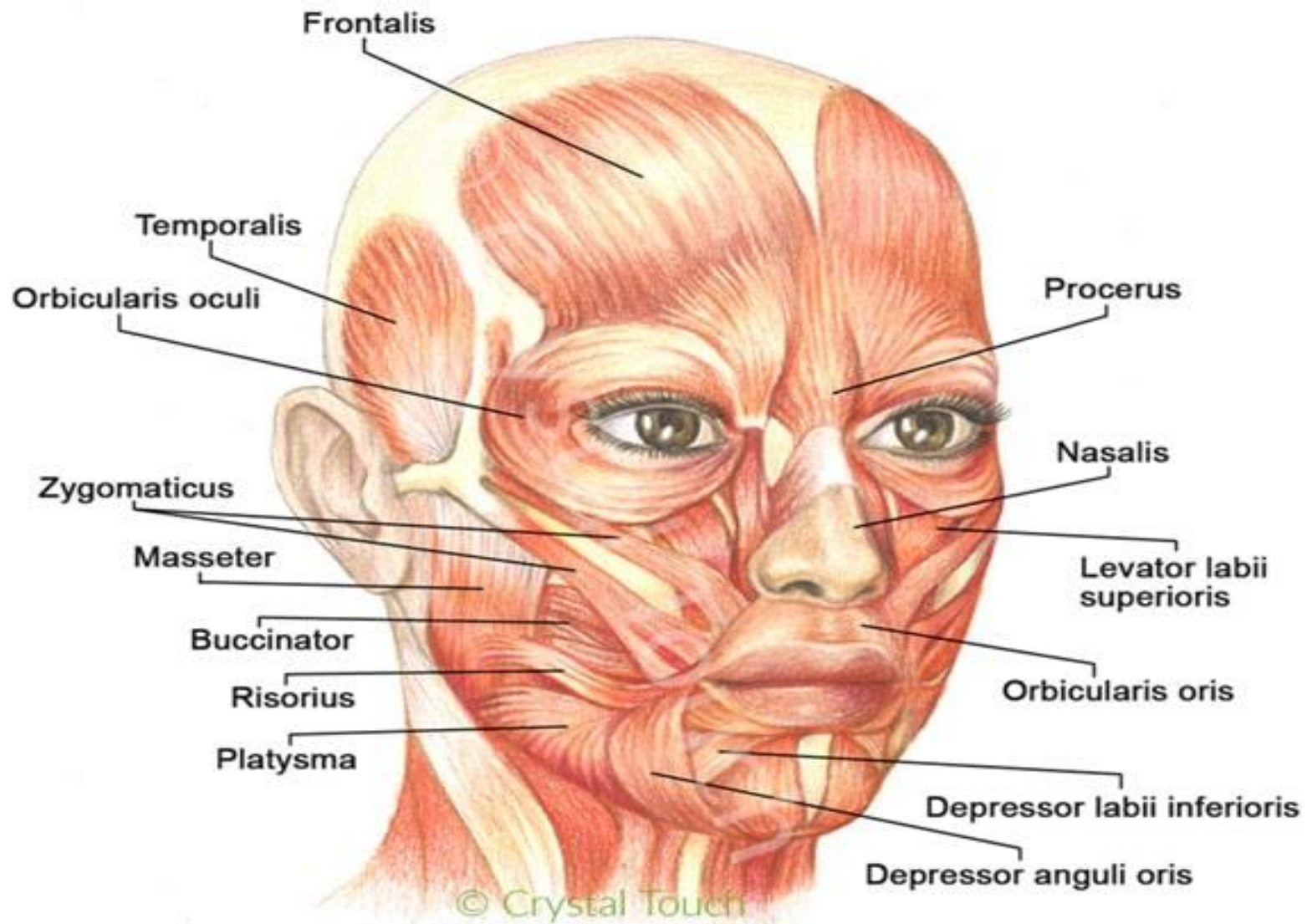
Levator labii superioris —————

Depressor labii inferioris ————



Figure 10.7 Muscles Used In facial expressions.



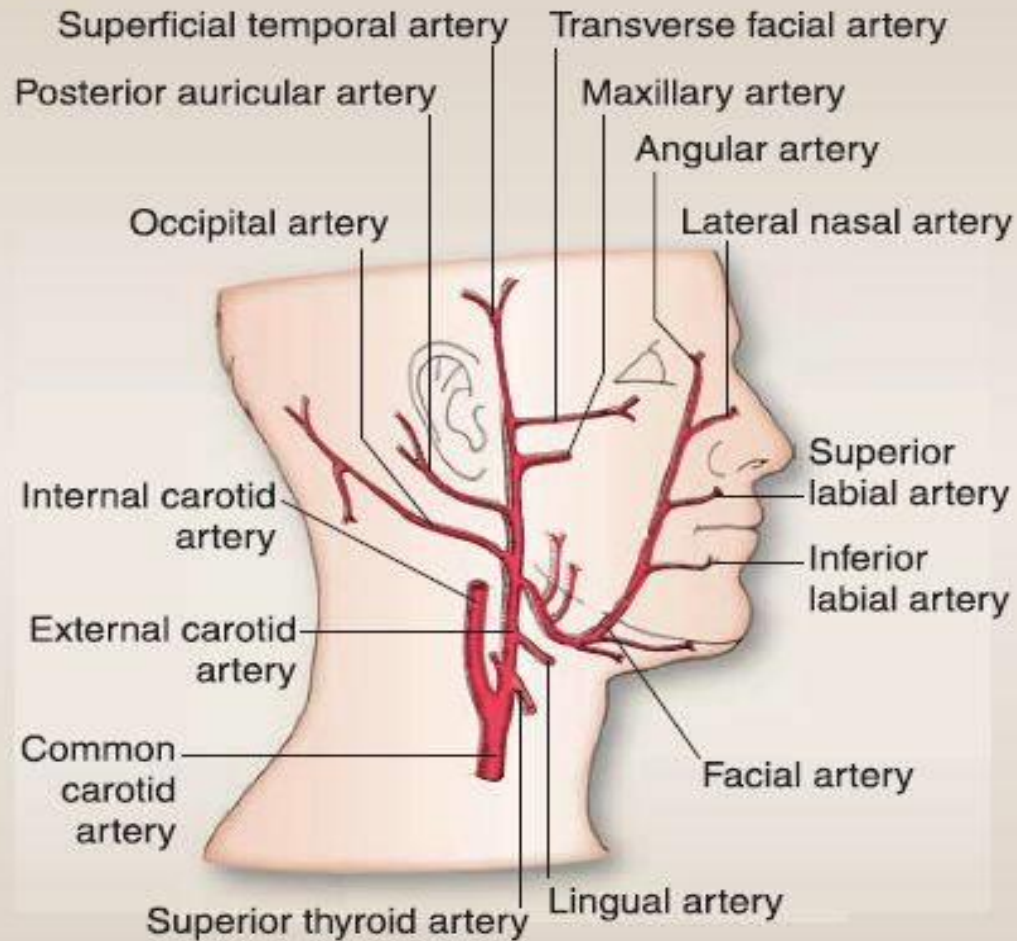
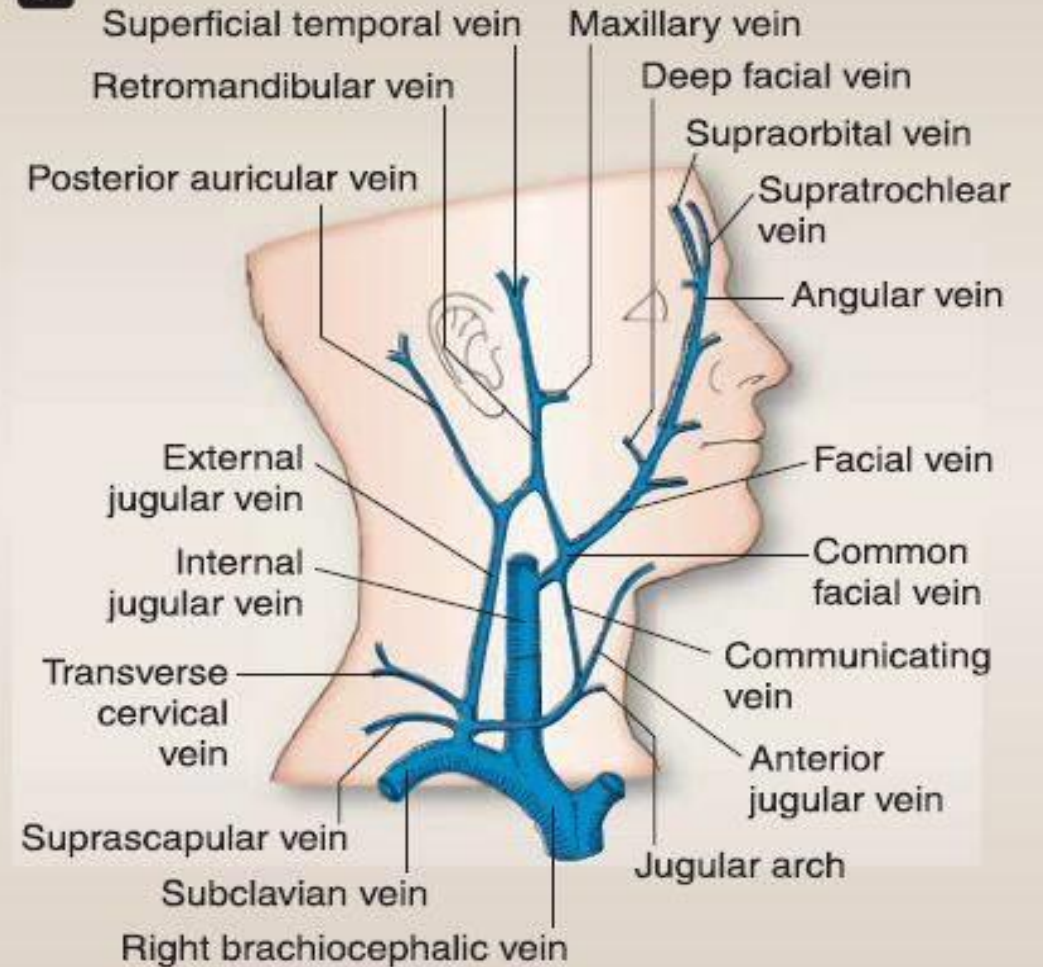


ARTERIES OF FACE

- Face is richly vascular & the main arteries that supplies the face are as follows-
 1. Common carotid artery –
External & Internal carotid artery
 2. **External carotid artery**
 - a) **facial artery**
 - b) Transverse facial artery
 - c) Maxillary artery
 3. Internal carotid artery- Ophthalmic artery

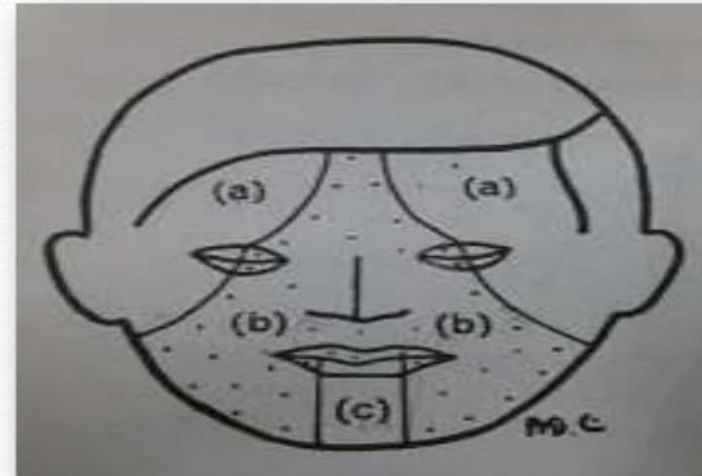
VEINS OF FACE

1. **Facial vein - major vein draining the face**
2. Transeverse facial vein

A**B****Right lateral views**

LYMPHATIC DRAINAGE OF FACE

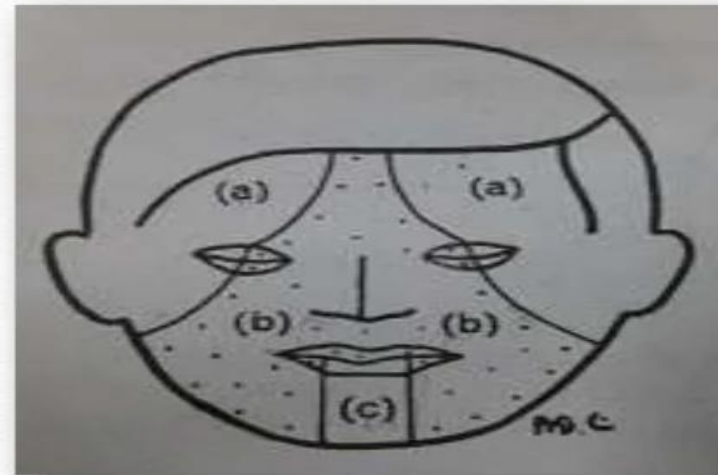
- The face has 3 lymphatic territories-
1. **Upper territory- Preauricular (parotid) nodes**
 - including the greater part of the forehead
 - Lateral halves of the eyelids
 - The conjunctiva
 - Lateral part of the cheek
 - Parotid area



(a) Upper territory

2. Middle territory- Submandibular nodes

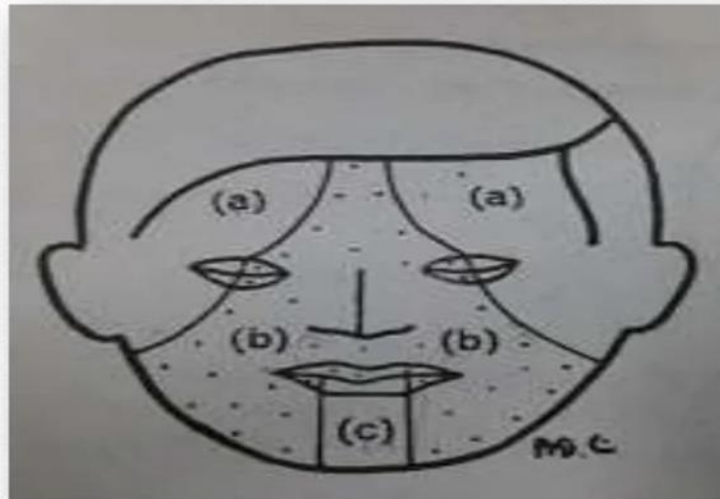
- Median part of the forehead
- External nose
- Upper lip
- Lateral part of lower lip
- Medial halves of eyelids
- Medial part of cheek
- Greater part of the lower jaw



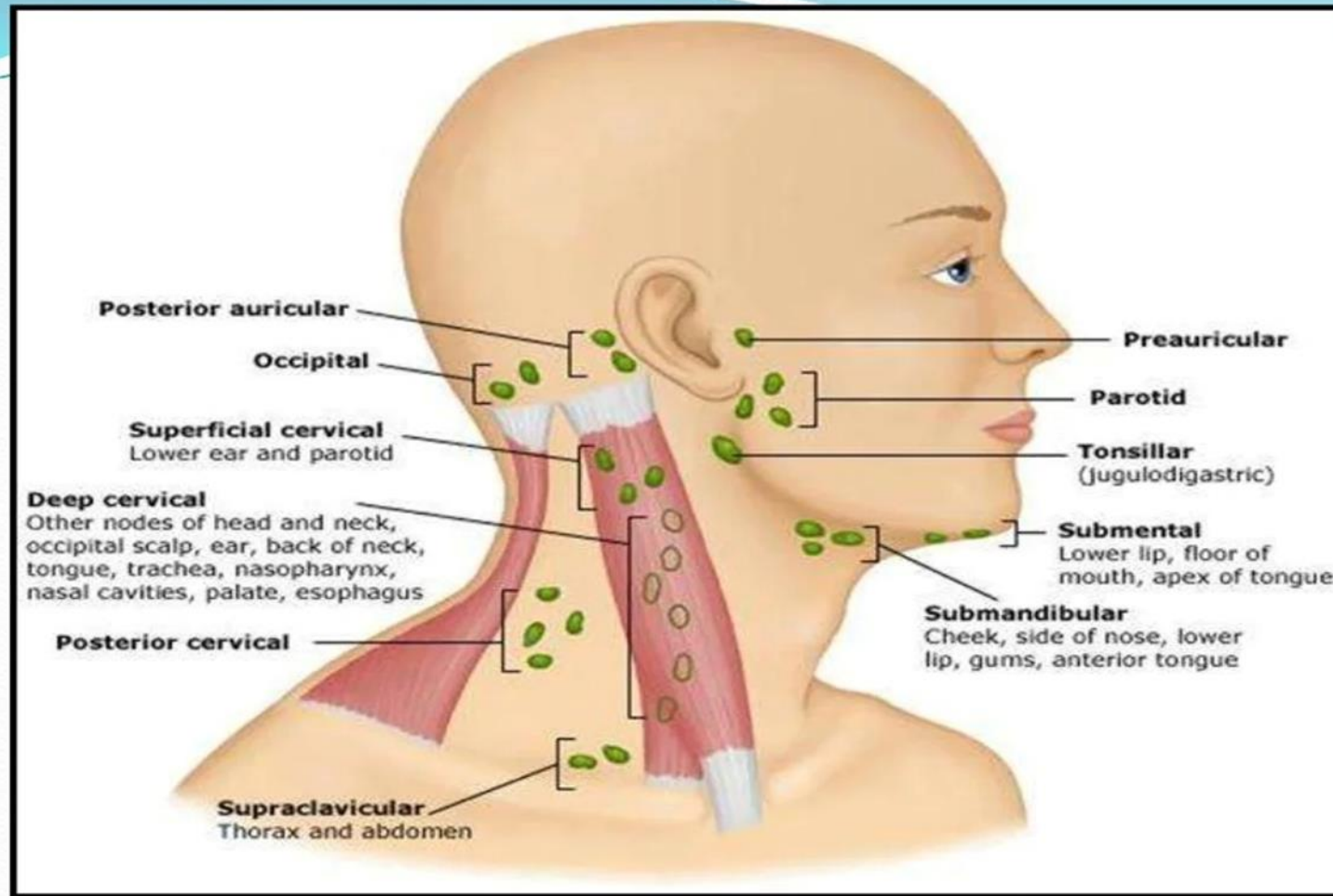
(b) middle territory

3. Lower territory - *Submental nodes*

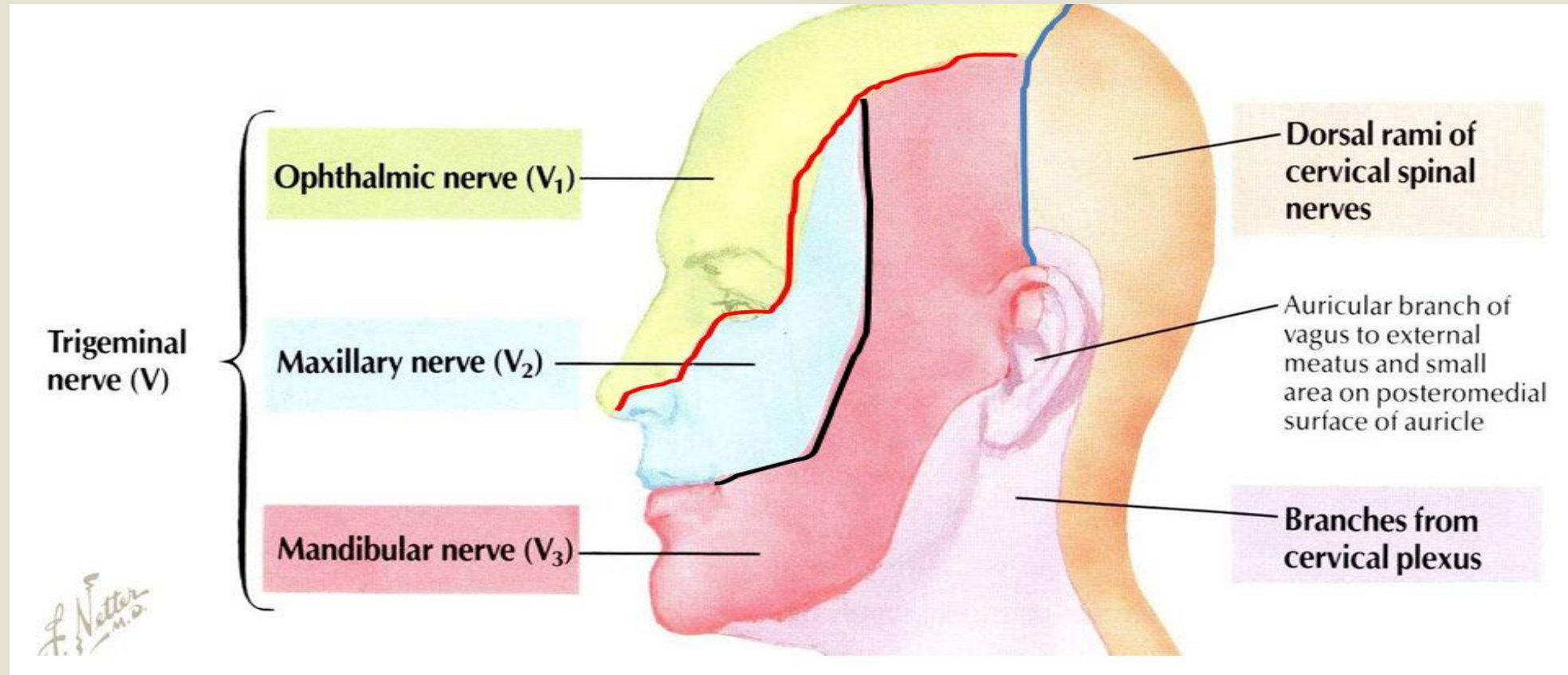
- Central part of the lower lip
- Chin



(c) lower territory



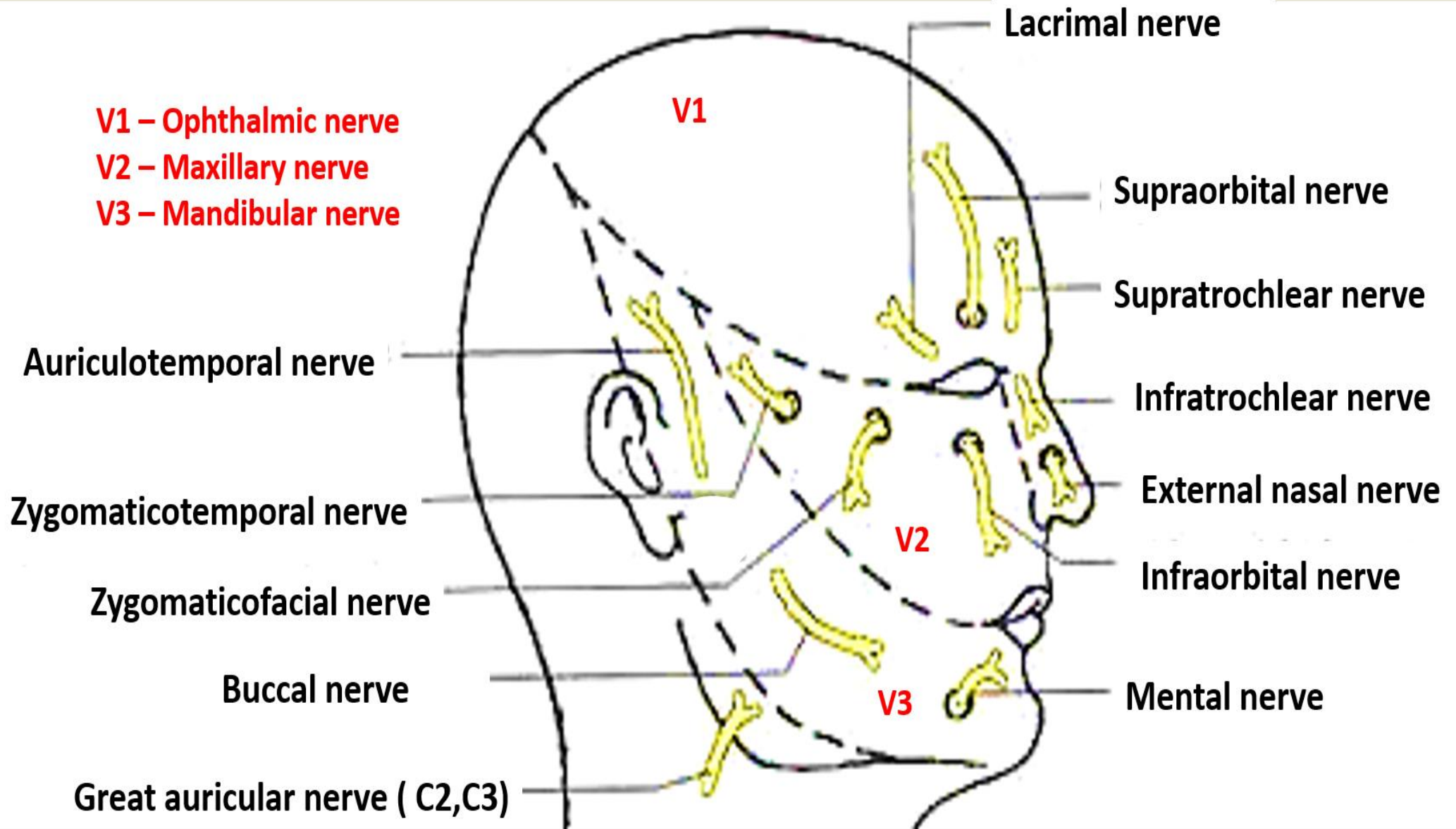
SENSORY NERVE SUPPLY OF FACE



FASCIAL NERVE (MOTOR)



V1 – Ophthalmic nerve
V2 – Maxillary nerve
V3 – Mandibular nerve



CONCLUSION

- Some infection from the face can spread in the retrograde direction, because of venous channels of face have interconnections with the intracranial cavernous sinus through emissary veins, so for proper diagnosis & management it is important to know the facial anatomy & blood supply of face.

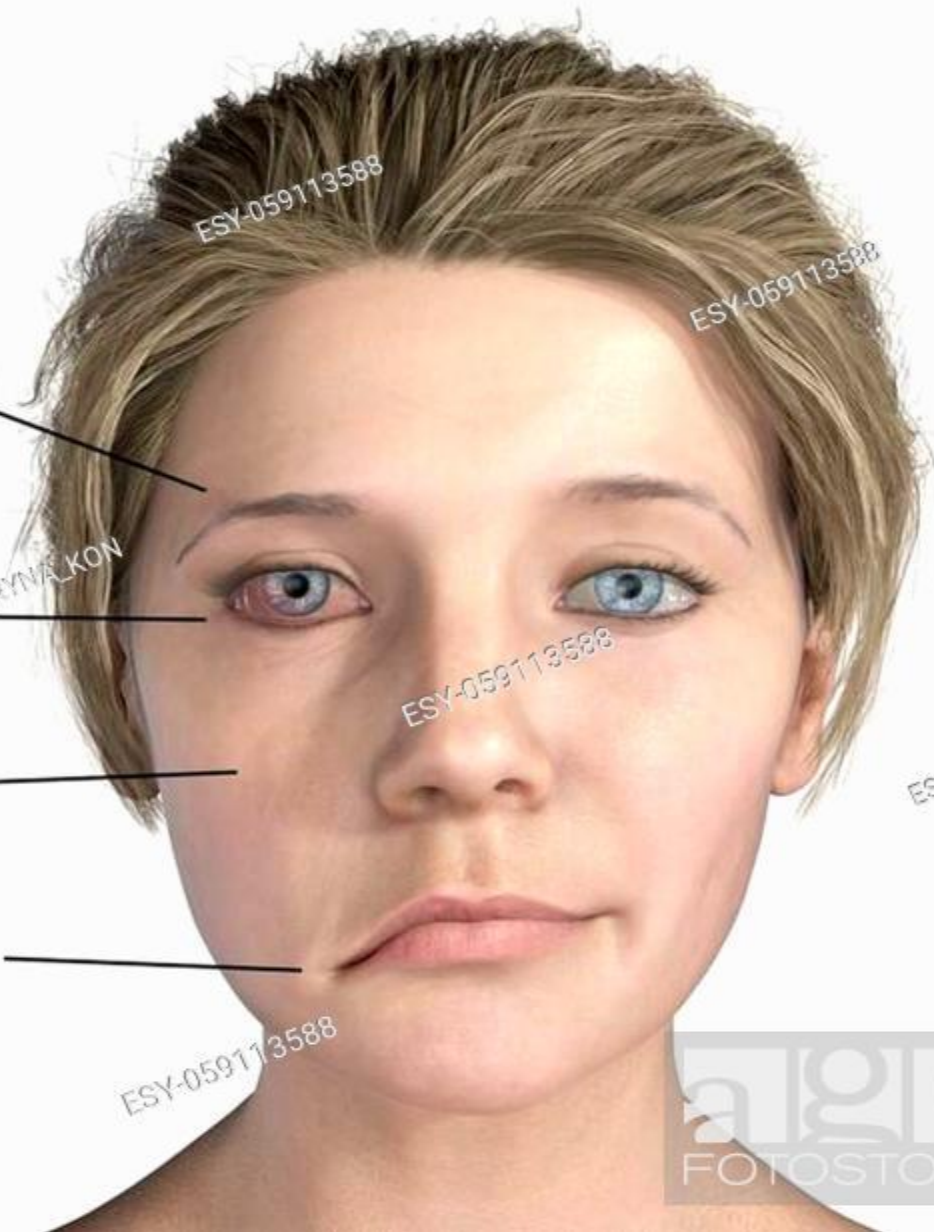
FACIAL PALSY

Inability to wrinkle brow

Drooping eyelid;
inability to close eye

Inability to puff cheek

Drooping corner of mouth;
dry mouth





Absence of forehead wrinkling

Droopy eyelid, dry eye, or excessive tearing

Facial paralysis, or weakness

Drooping corner of mouth, dry mouth, impaired taste



Medical Mnemonics – Neurology

Bell's Palsy Symptoms “BELL'S PALSY”

- Blink reflex normal
- Earache
- Lacrimation (deficient, excess)
- Loss of Taste
- Sudden onset
- PALSY of VII nerve muscles
(All Symptoms are Unilateral)

