

# **SKULL**

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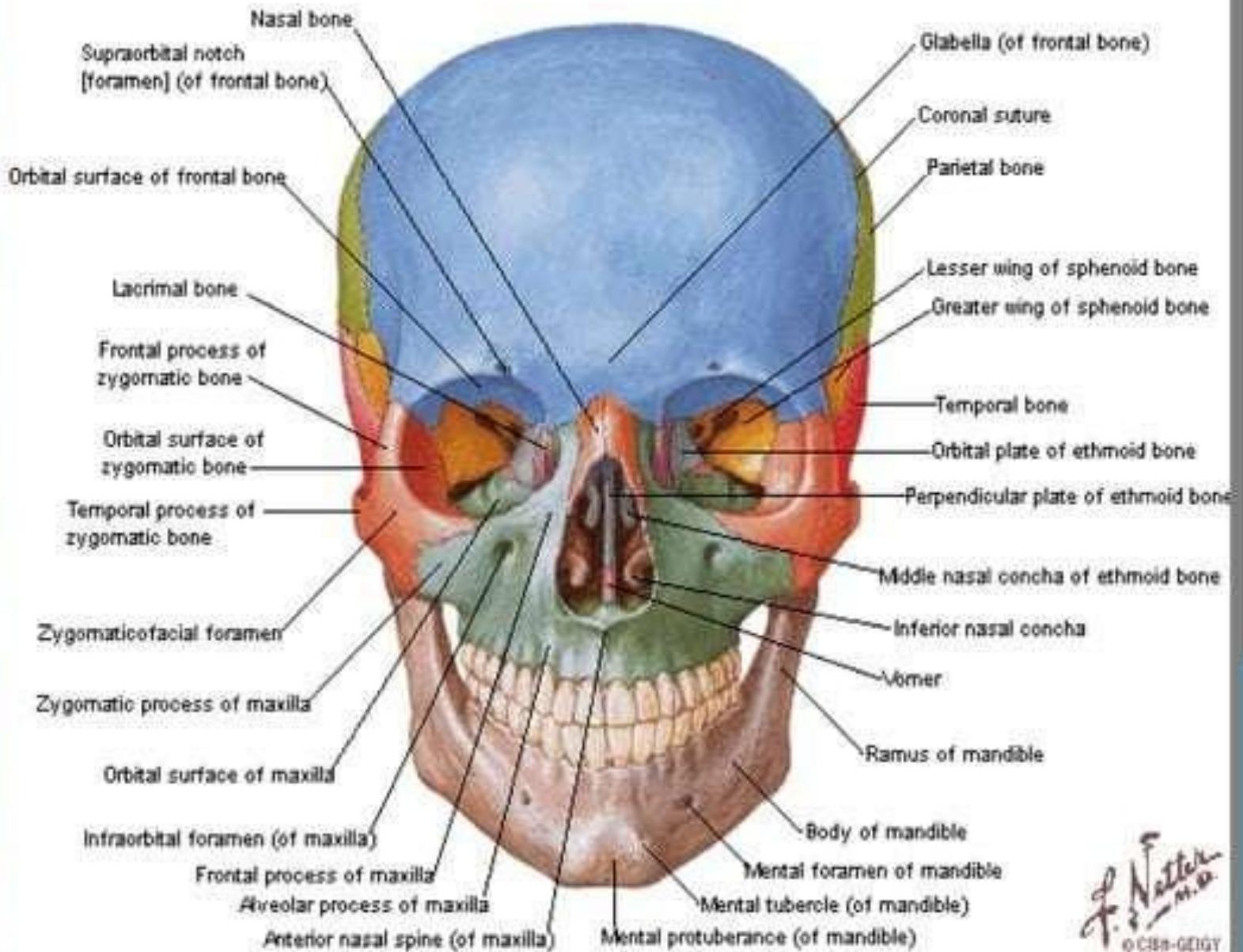
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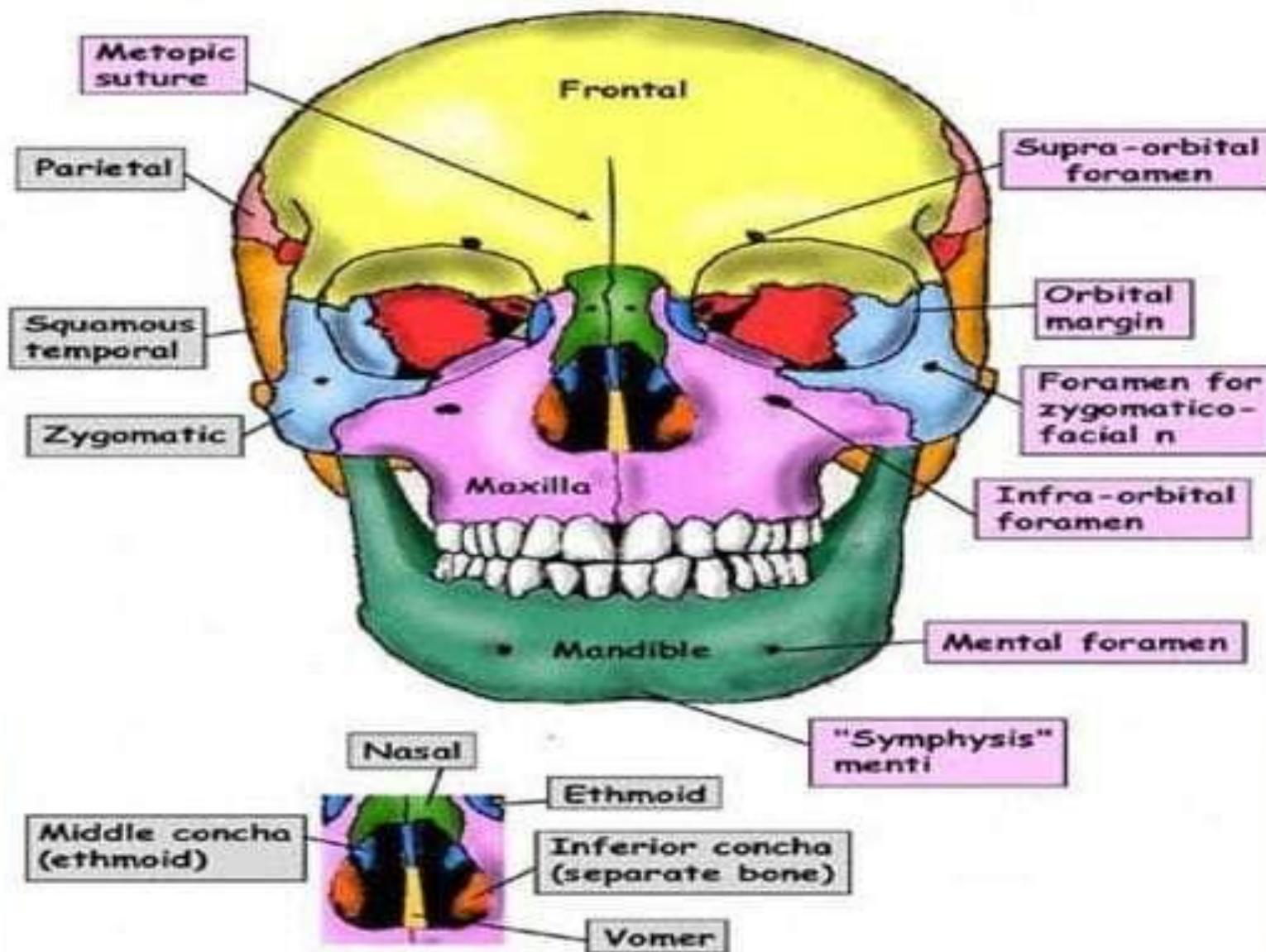
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# Skull

## Anterior View

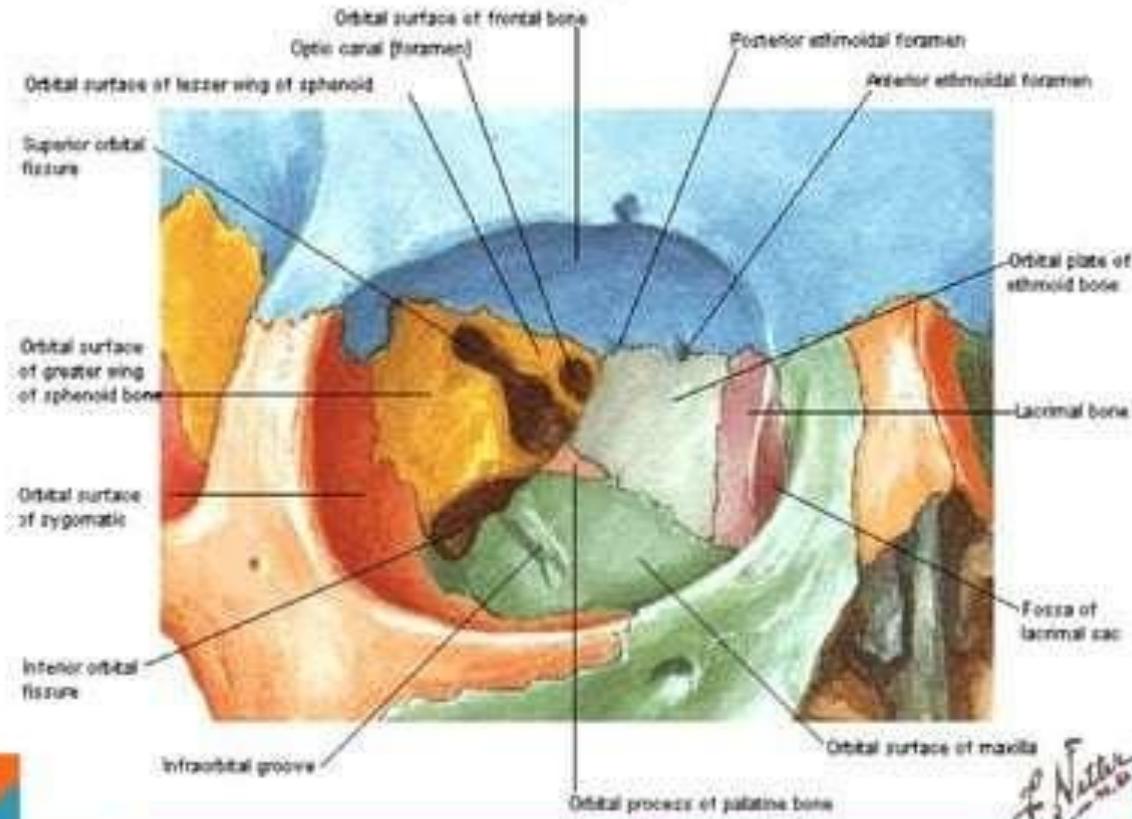


## ANTERIOR VIEW OF SKULL TO SHOW BONES & OTHER FEATURES



## Right Orbit

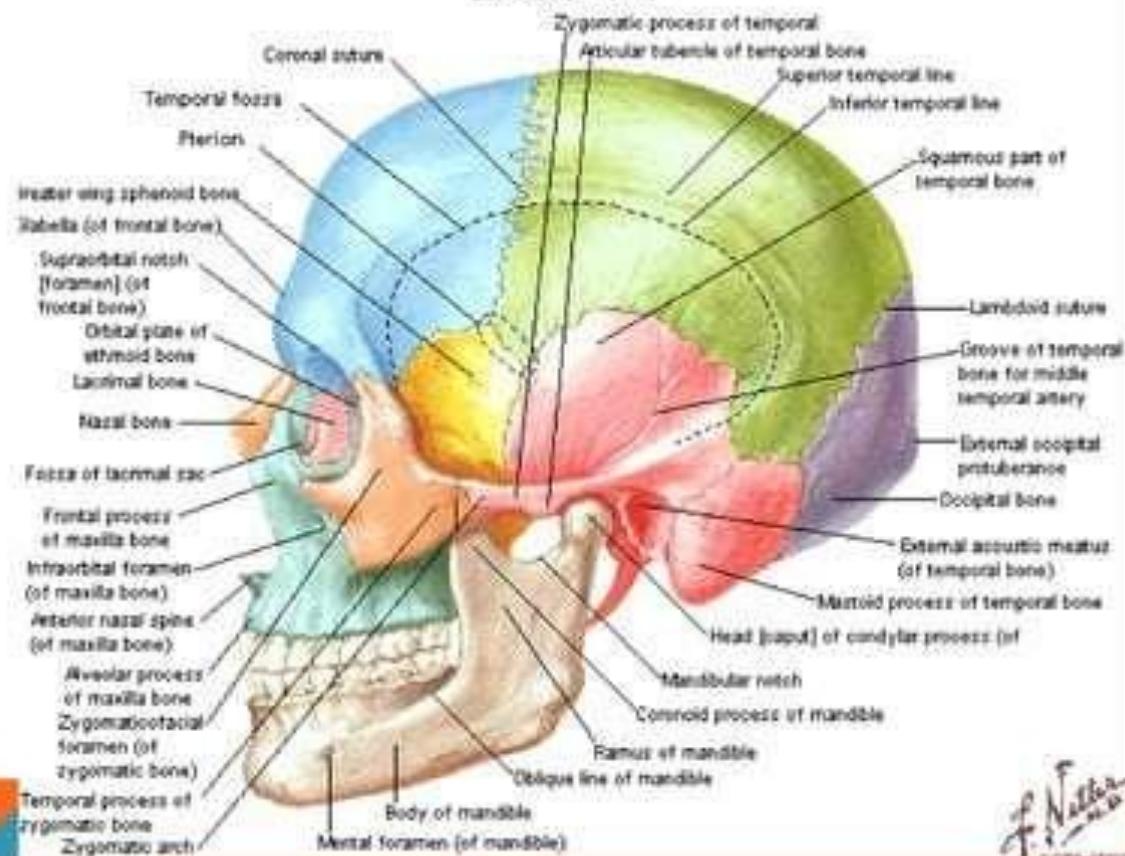
### Frontal and Slightly Lateral View



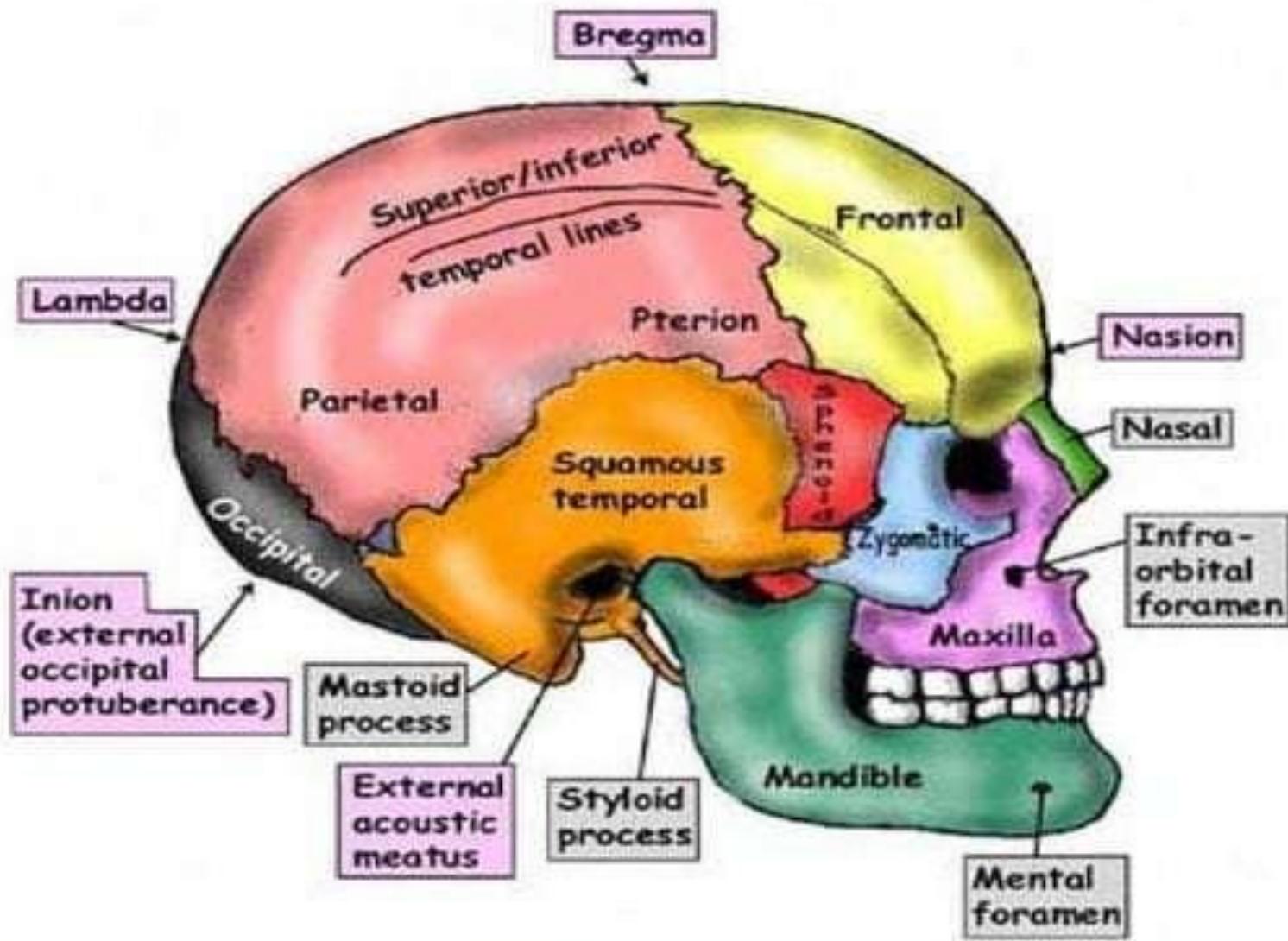
*F. Netter M.D.*  
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## Skull

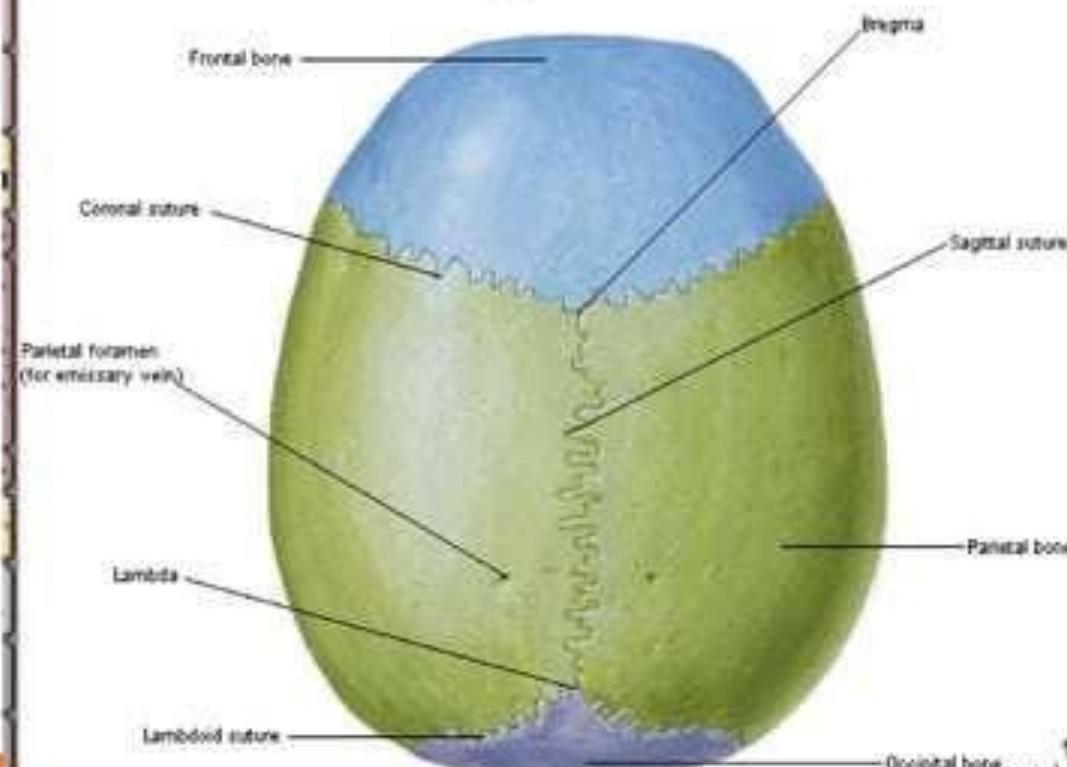
### Lateral View



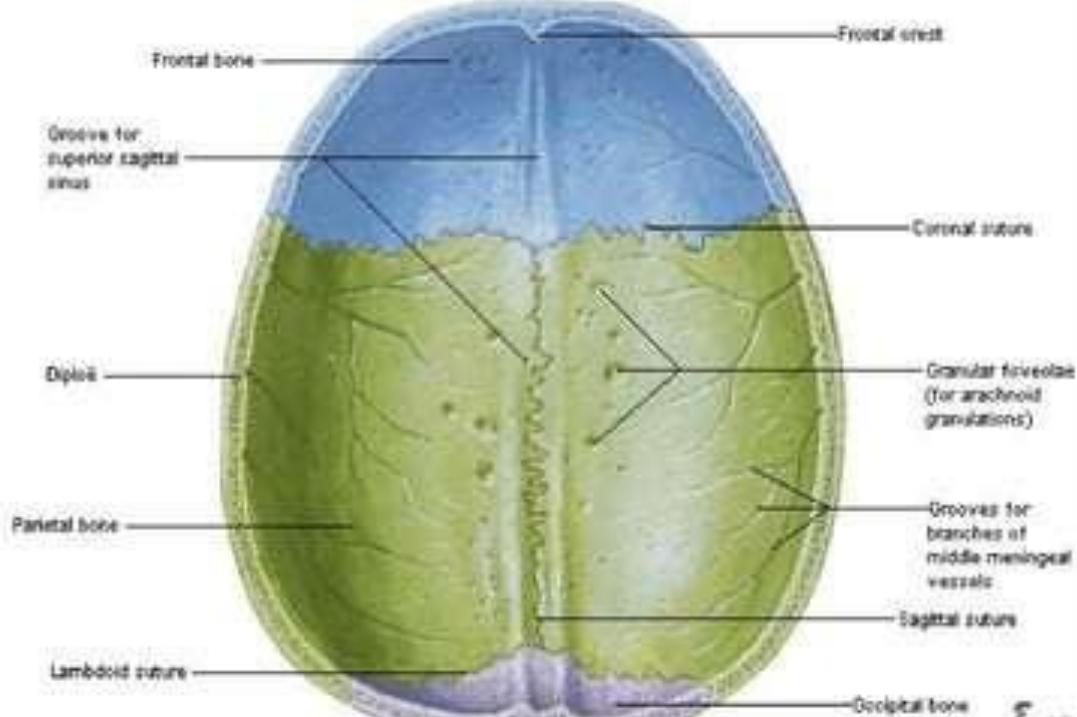
## LATERAL VIEW OF SKULL TO SHOW BONES & OTHER FEATURES



## Calvaria Superior View

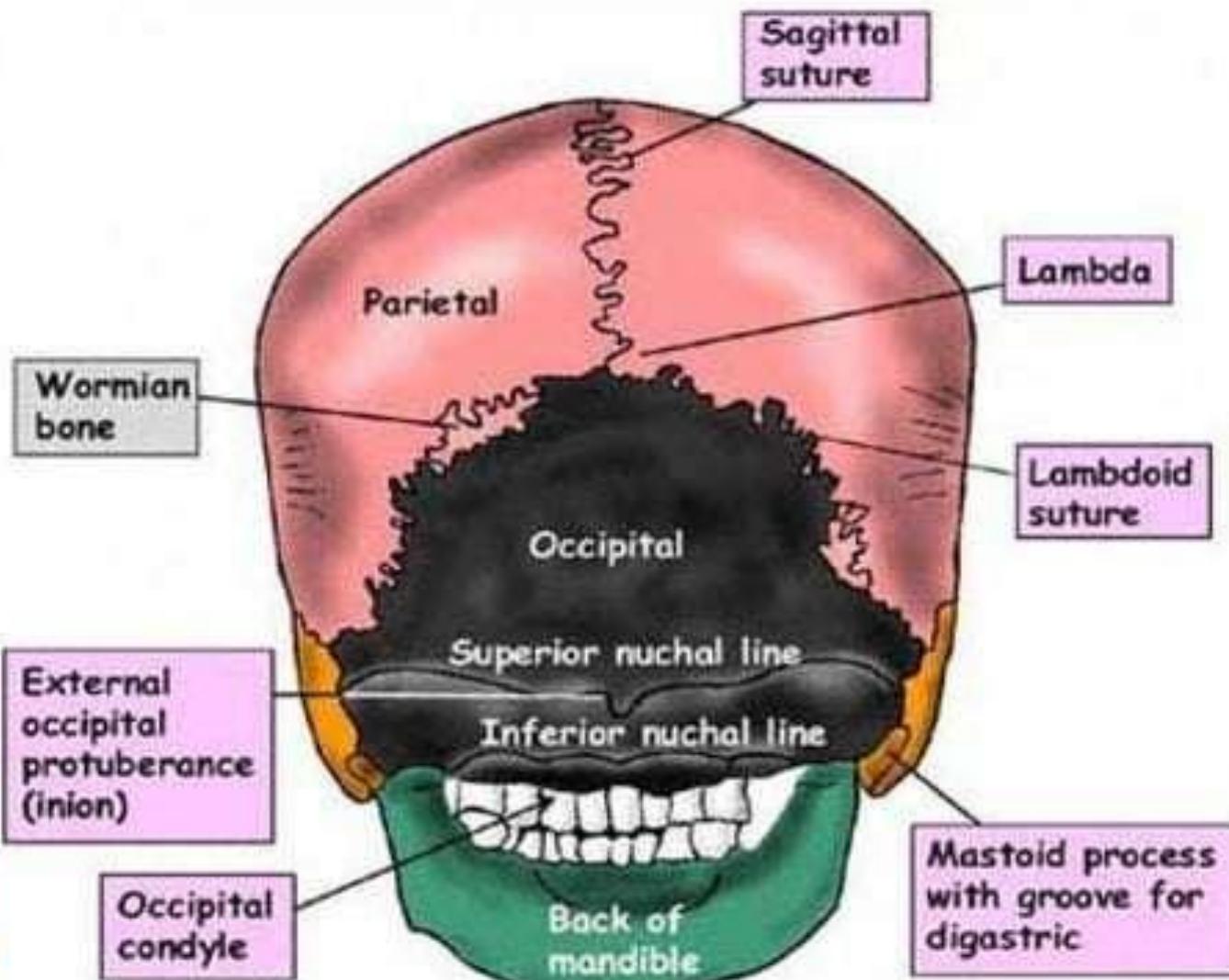


## Calvaria Inferior View



J. Nutter  
M.D.  
© 1984-2001

## POSTERIOR VIEW OF SKULL TO SHOW BONES & OTHER FEATURES



# **INTERIOR OF THE SKULL (CRANIAL FOSSA**

## A- ANT. CRANIAL FOSSA

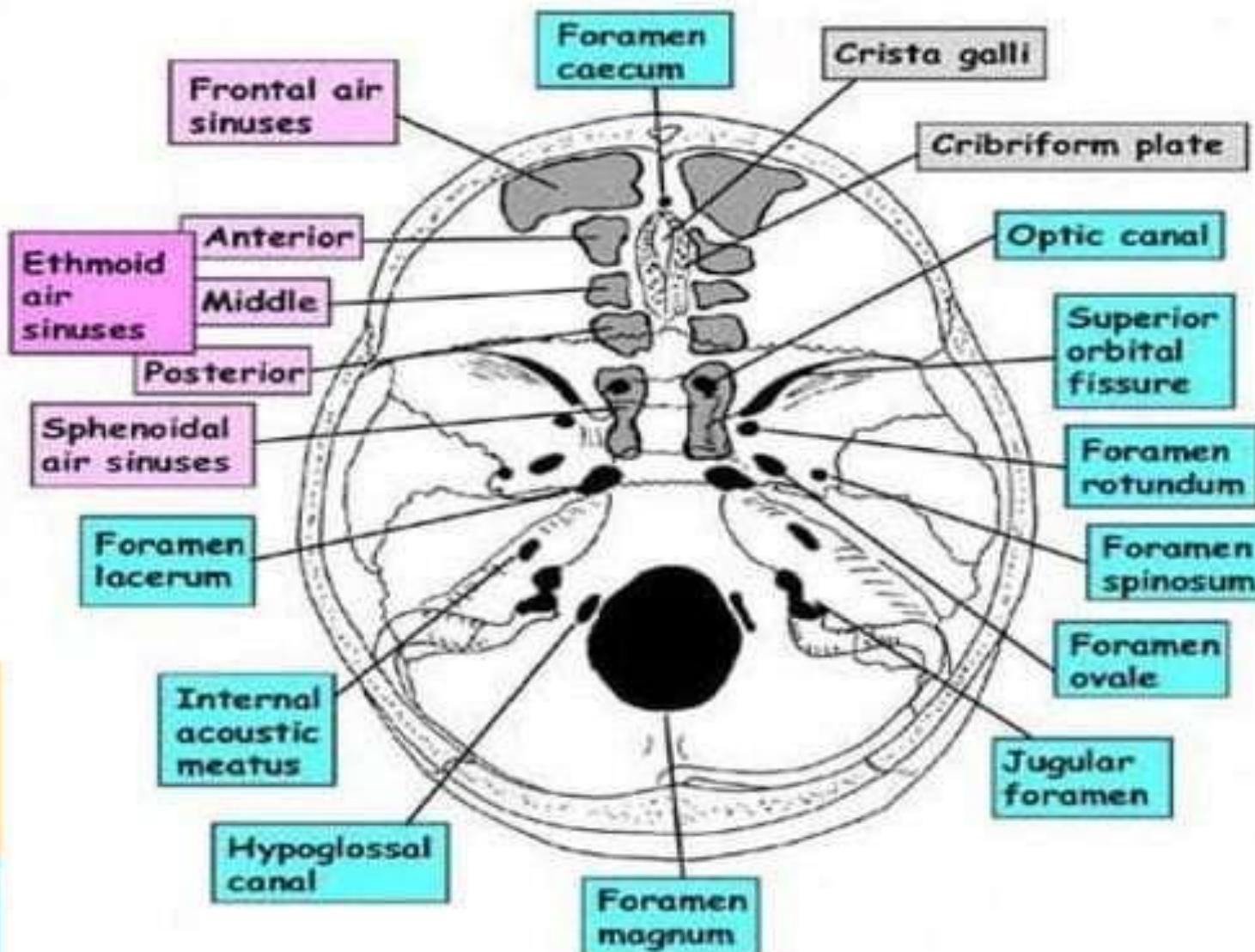
.Sup.      \_\_\_\_ frontal bone

.Antero. Lat.    \_\_\_\_ frontal bone

Post.      \_\_\_\_ lesser wing of sphenoid

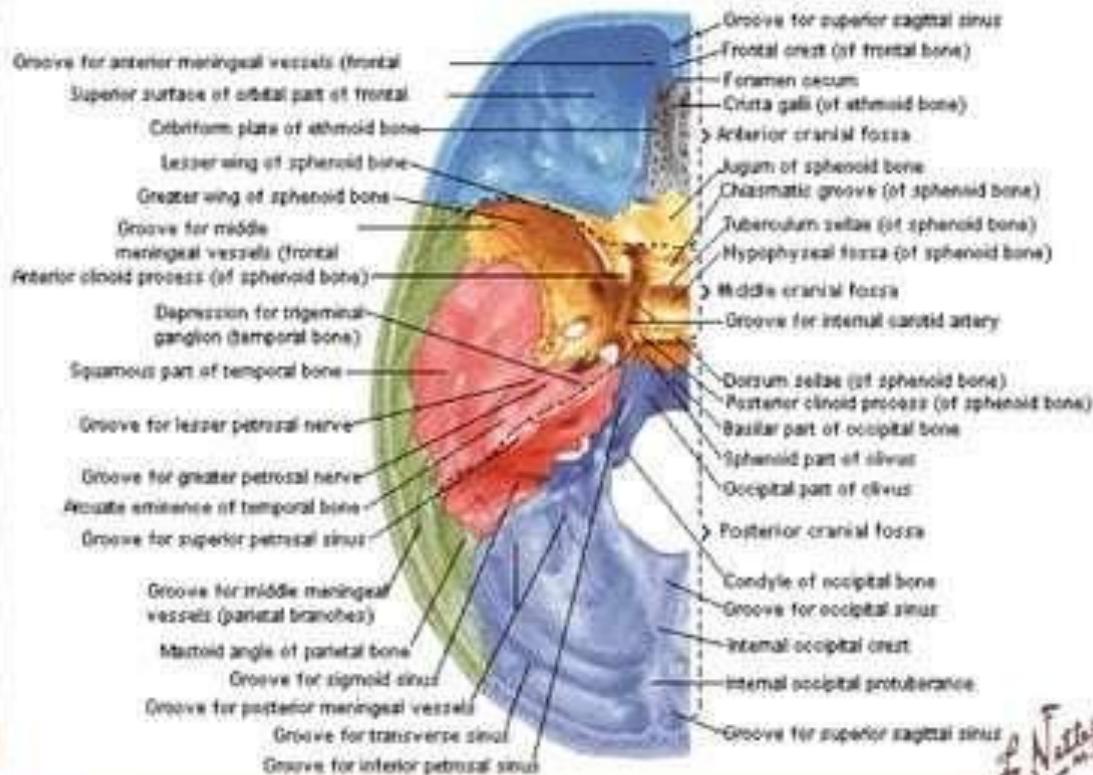
Inf.      \_\_\_\_ orbital plate of frontal

## INTERNAL VIEW OF BASE OF SKULL TO SHOW SINUSES AND FORAMINA



## Bones of Cranial Base

### Superior View



## FORAMINA IN ANT. CRANIAL FOSSA

E.caecum: in front of crista galli , in the median plane at fronto-<sup>-1</sup> ethmoidal suture . Transmitting emissary veins from . upper nose to the sup.sagittal sinus , but it's usually blind

Olfactory F.: in the cribriform plate of ethmoid , 15-20 in number on each side, for passage of olfactory n. from upper 1/3 of nose to olfactory bulb - 2

.:Ant. and Post. Ethmoid F- 3

**Ant.:** in the suture joining lateral margins of cribriform plate of ethmoid , and orbital plate of frontal , behind crista galli

**Post.:** in the posterolateral of cribriform plate of ethmoid where it's articulates with jugum of sphenoid

Both ant. and post. ethmoid f. , transmit \*\*\*

## CLINICAL NOTES

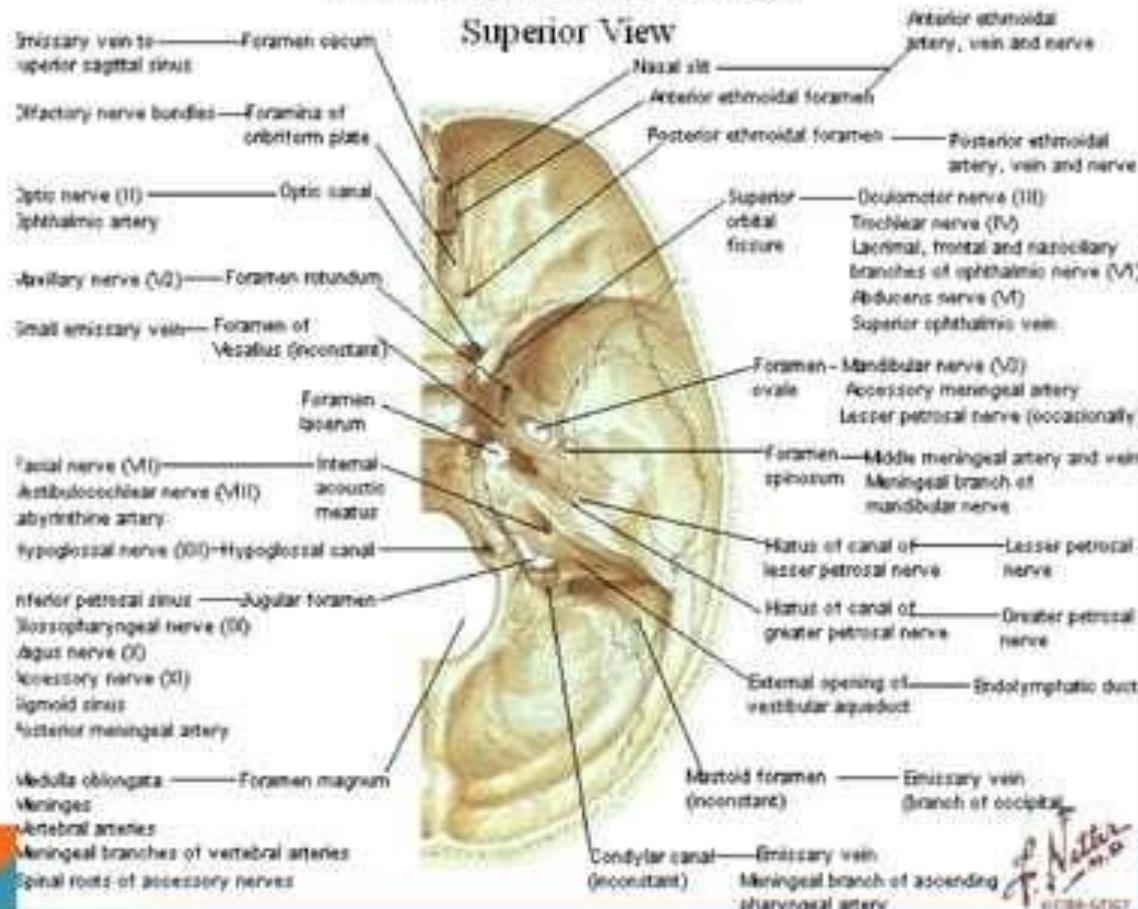
### :Fractures of anterior cranial fossa:

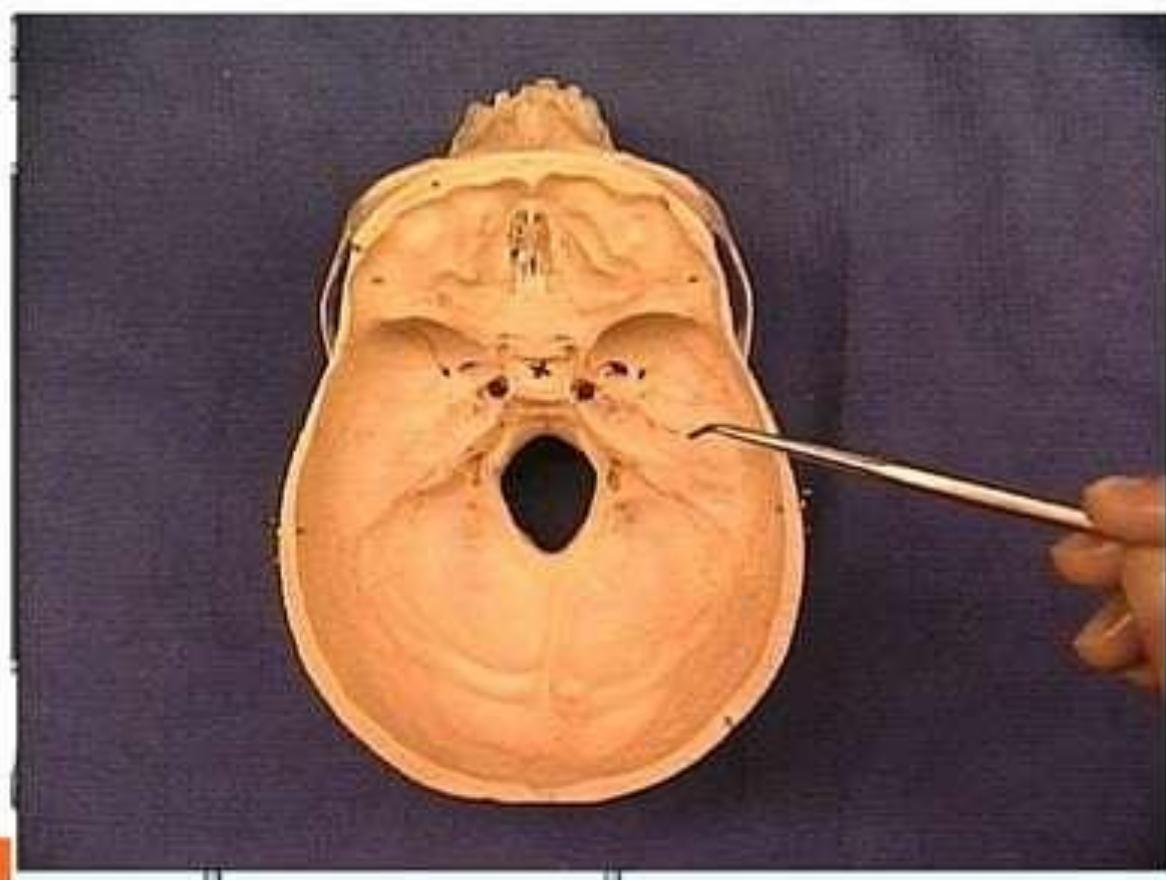
Involve cribriform plate lead to epistaxis      accompany by discharge\*  
. of C.S.F and      loss of smell

Fracture involve orbital plate of frontal      bone lead to\*\*  
subconjunctival which my      lead or produce exophthalmus or  
.frontal    sinus my involved

## Foramina of Cranial Base

### Superior View





## FORAMINA IN MIDDLE CRANIAL FOSSA

Optical canal: in the sphenoid between the body and two roots of lesser wing. Transmit- optic n. and ophthalmic artery inferolateral to the n

Sup. Orbital fissure: in the sphenoid , between body and two wings. Transmit- oculomotor , trochlear , abducent nerves

. lacrimal ,frontal,nasociliary nerves,superior of ophthalmic vein

**F. Rotundum:** In the greater wing of sphenoid infero lateral to medial -3  
.end of sup. Orbital fissure .transmits max. division of V nerve

**F. Ovale:** In the greater wing of sphenoid ,postero- lateral to f. rotundum ,-4  
.opens in the base of skull at the root of L. pterygoid plate

Transmits- mand. n. , lesser petrosal n. , accessory meningeal art. and  
.emissary veins from cavernous sinus to pterygoid plexus

Carotid canal: Internal carotid artery enter and reach the side of body of ~~-7~~ sphenoid, then enter cavernous sinus to reach the region of anterior clinoid process

## CLINICAL NOTES

.Fractures in middle cranial fossa is common site of fractures of skull  
Because of its position and weakened by numerous foramen and  
canals, so frequently tegman tympani if fracture and tympanic  
.membrane is torn,so blood and C.S.F are discharged from ear

## **:C- POST. CRANIAL FOSSA**

Ant. \_\_\_\_ post part of petrous of temporal

Lat. \_\_\_\_ parietal and mastoid process of temporal

Post. \_\_\_\_ occipital

Inf. \_\_\_\_ foramen magnum

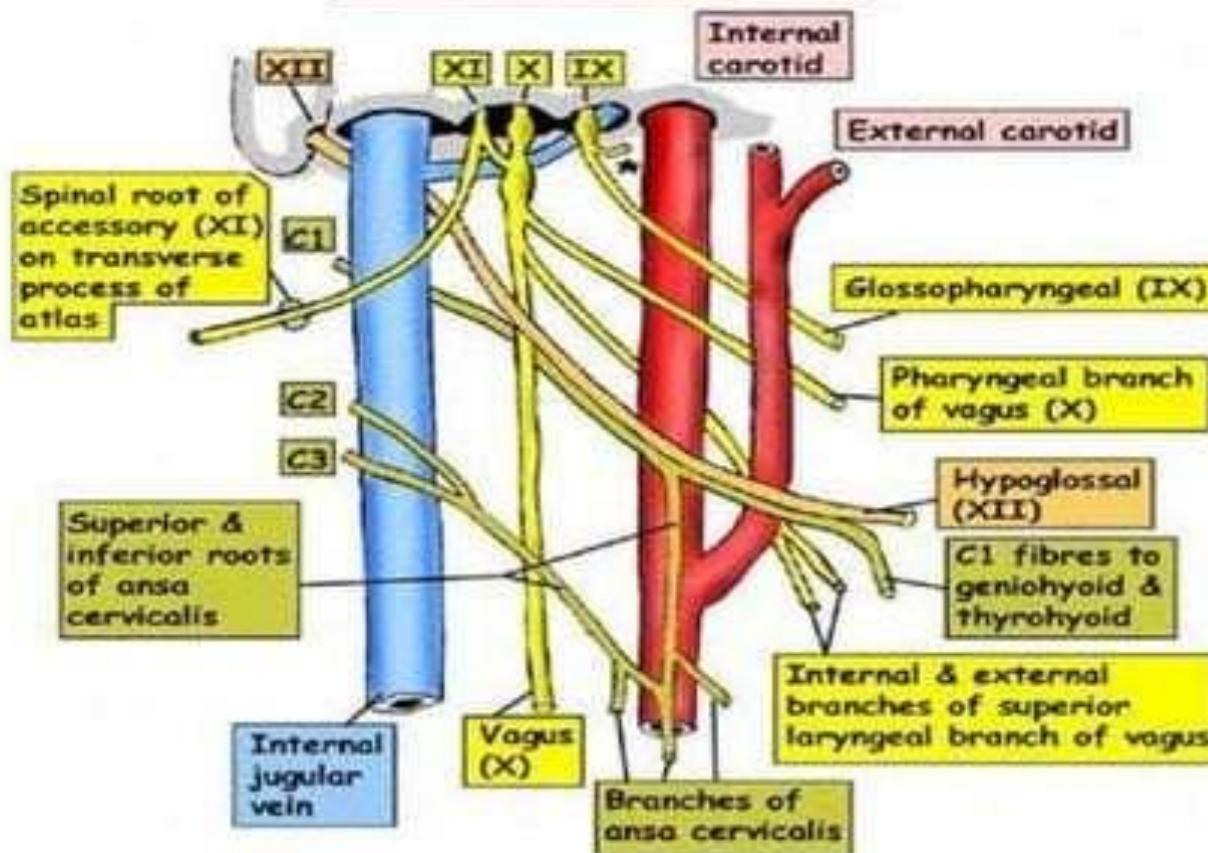
largest and deepest cranial fossa and lodges the hindbrain  
). (cerebellum, pons, medulla oblongata)

\*\*

## FORAMINA IN POST. CRANIAL FOSSA

- Int. acoustic meatus:** in post sur. of petrous temporal -1  
Transmit- Facial , vestibulocochlear nerves , labyrinthine artery
- Jugular F.:** between jugular f. and occipital b -2  
Transmits- 9,10,11th , inf petrosal sinus , IJV , meningeal branch of occipital artery

## JUGULAR FORAMEN EXPLODED VIEW



- The vagus lies most medial in the foramen
- Glossopharyngeal nerve & inferior petrosal sinus exit from the anterior compartment of the foramen
- Vagus & accessory nerves exit from the middle compartment
- The sigmoid sinus exits from the posterior compartment, is soon joined by the inferior petrosal sinus to become the internal jugular vein

\* = Tympanic branch of IX (Jacobson's nerve)

Hypoglossal canal: in occipital b. above ant. part of condyle . transmits hypoglossal n. and it's meningeal branch and also emissary veins from basilar plexus of veins to IJV

-3

Condylar canal: from the lower part of sigmoid groove in lateral of occipital b. to condylar fossa on ext. sur. of occipital b. behind the condyle . transmits emissary veins (from sigmoid sinus to occipital veins and meningeal branch of occipital artery

-4

Mastoid F.: in petrous temporal near post. margin of lower part of sigmoid - 5  
.groove , passing backwards to open behind mastoid process

Transmits - emissary veins ( from sigmoid sinus to occipital veins) , also  
. meningeal branch of occipital artery

## **:CRANIAL NERVES**

**Olfactory n. \_\_\_\_ smell sense- 1**

**Optic n. \_\_\_\_ sight- 2**

**Oculomotor \_\_\_\_ muscles of eye ball- 3**

**.Trochlear n- 4**

**.Trigeminal n- 5**

**.Abducent n- 6**

**.Facial n- 7**

**.Auditory n- 8**

**.Glossopharyngeal n- 9**

**.Vagus n- 10**

**.Accessory n- 11**

**.Hypoglossal n- 12**