

Cosa vogliamo essere in grado di fare?

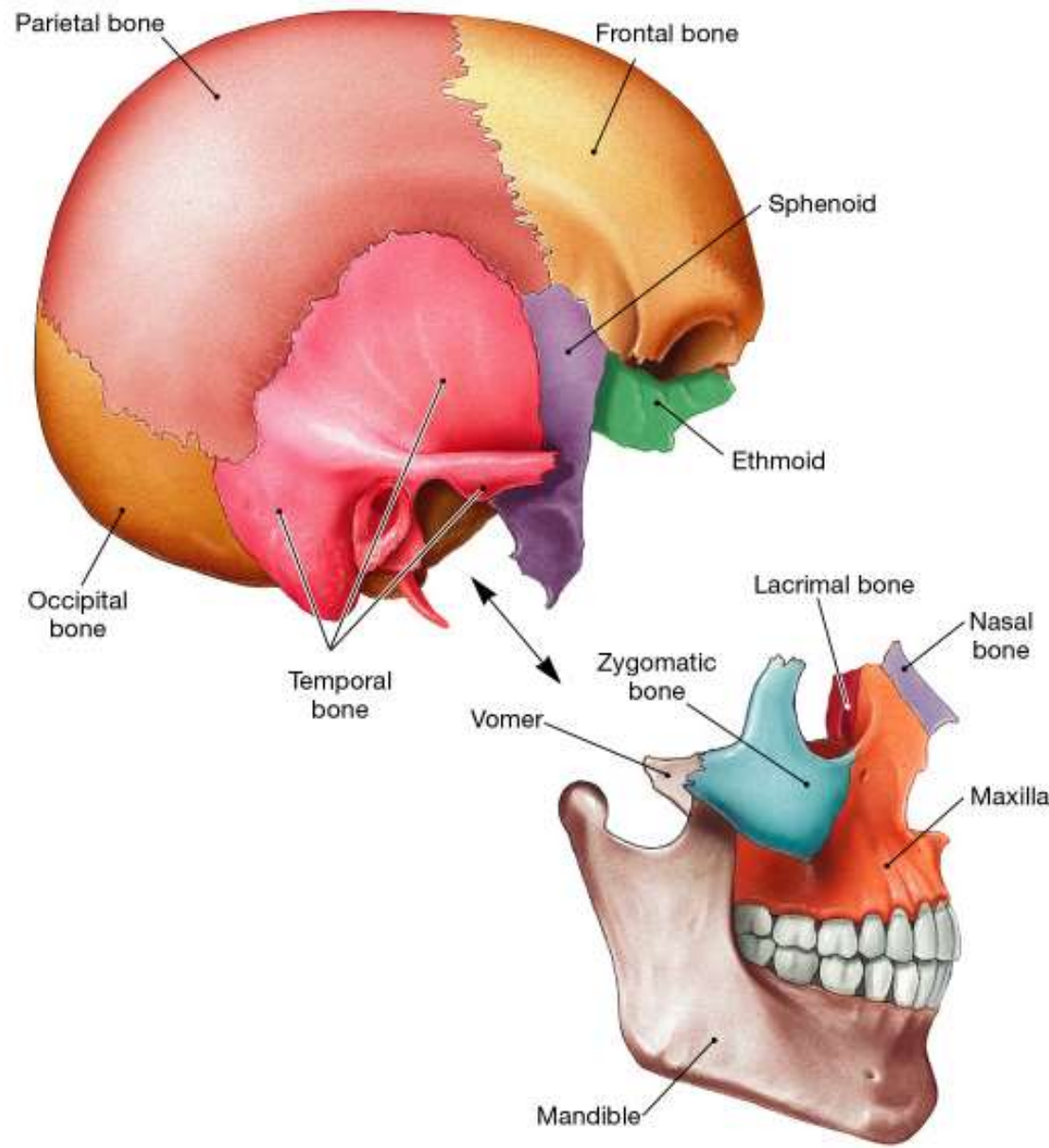
- 1) identificare la posizione delle principali ossa del cranio
- 2) conoscere le principali caratteristiche di frontale, parietale, occipitale, temporale, sfenoide, etmoide
- 3) identificare e collocare i seni paranasali
- 4) Conoscere le cavità nasali ed orbitarie
- 5) descrivere mandibola e mm masticatori

Cranio

- Il cranio può essere ripartito in un neurocranio ed uno splancnocranio

Neuro- e splancnocranio

SKULL	
CRANIUM	8
Occipital bone	1
Parietal bones	2
Frontal bone	1
Temporal bones	2
Sphenoid	1
Ethmoid	1
FACE	14
Maxillae	2
Palatine bones	2
Nasal bones	2
Inferior nasal conchae	2
Zygomatic bones	2
Lacrimal bones	2
Vomer	1
Mandible	1



Cranio

- Neurocranio
 - 8 ossa
 - Delimita una cavità
 - Protegge l'ENCEFALO
- Splancnocranio
 - Presenta l'ingresso delle vie respiratorie ed alimentari
 - Cavità orbitarie, nasali, buccale

Suture

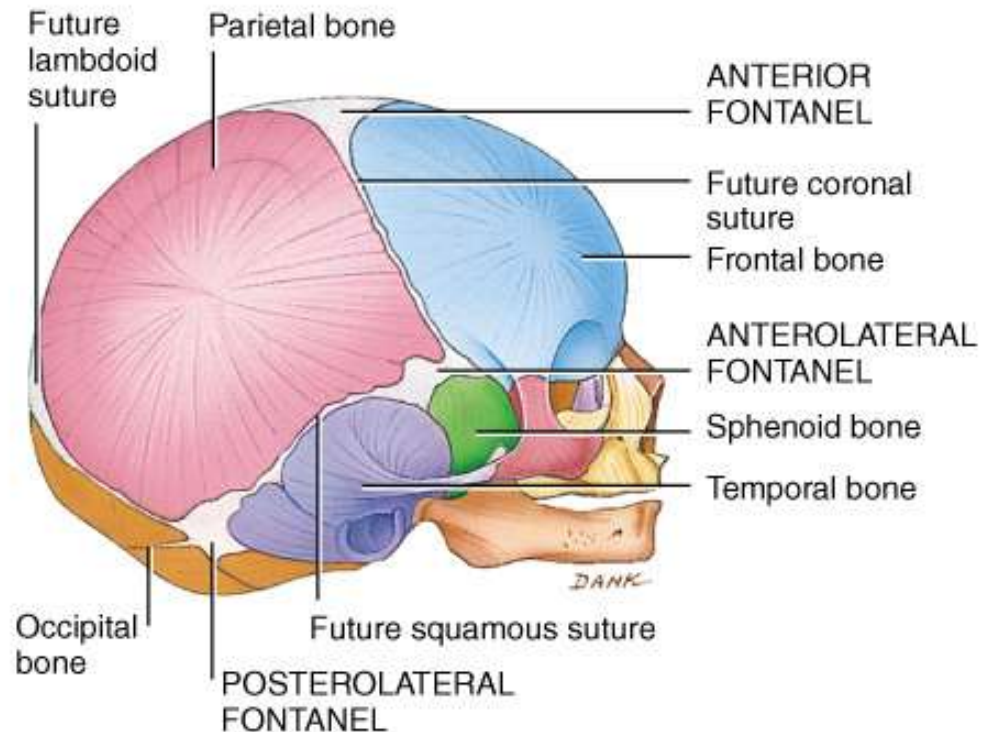
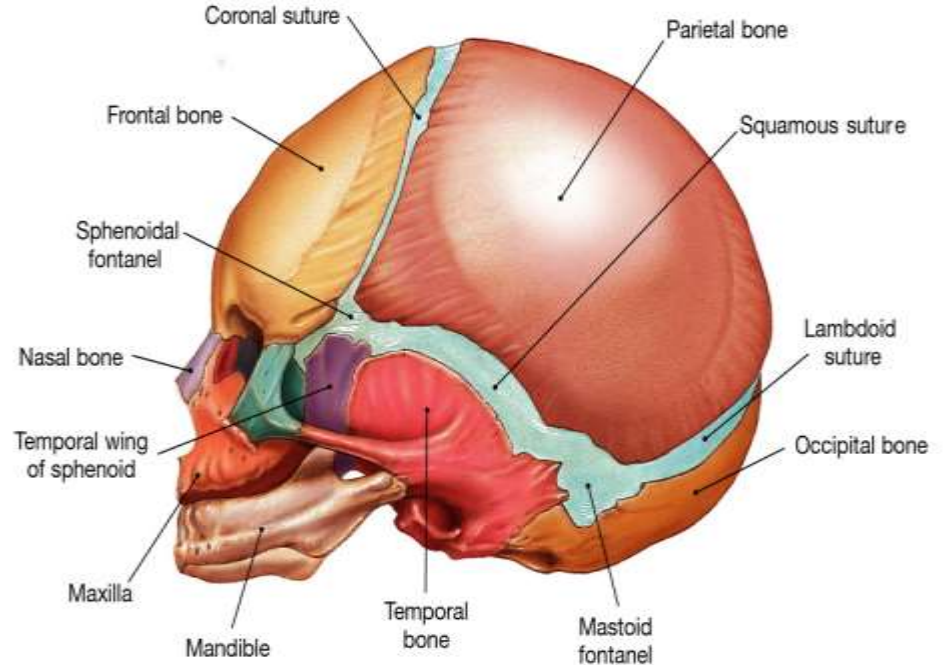
- Articolazioni fisse, uniscono le ossa del cranio
- 5 suture
 - Coronale
 - Sagittale
 - Lambdoidea
 - Squamosa
 - Frontonasale



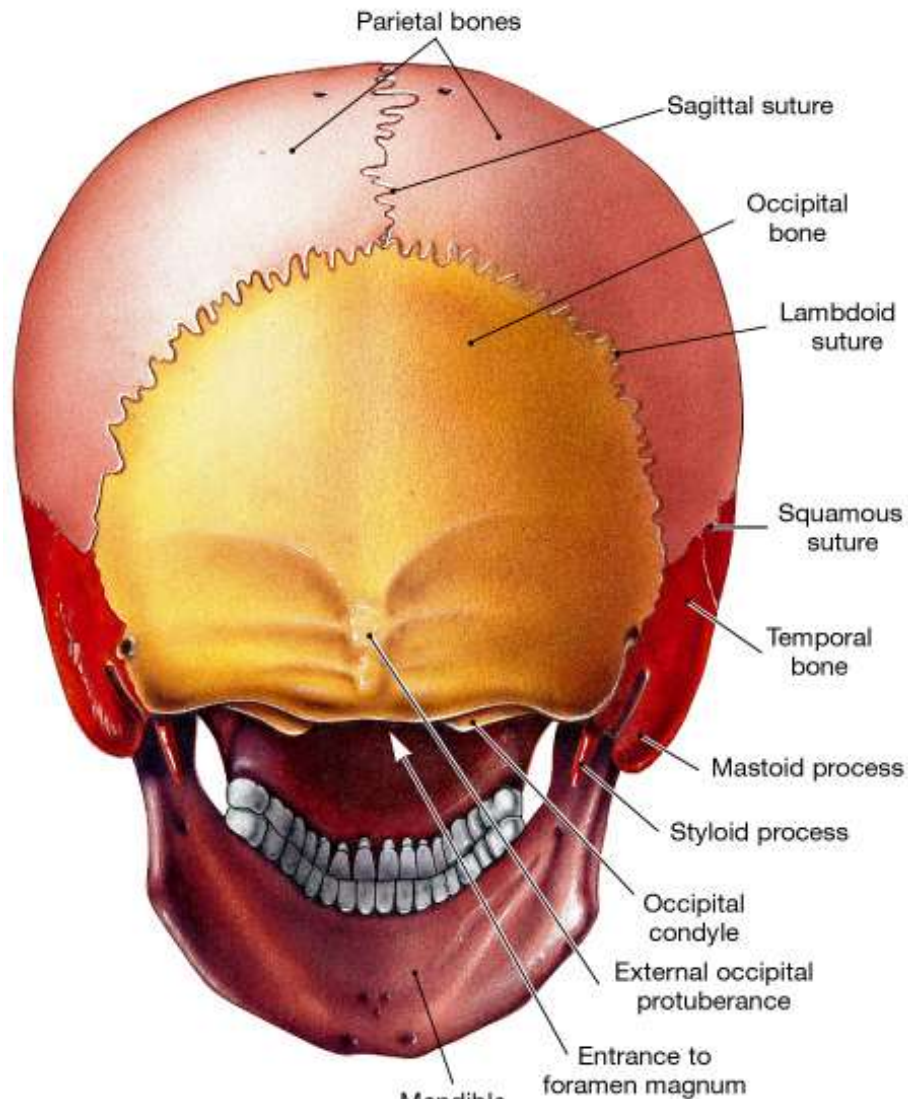
suture

Fontanelle

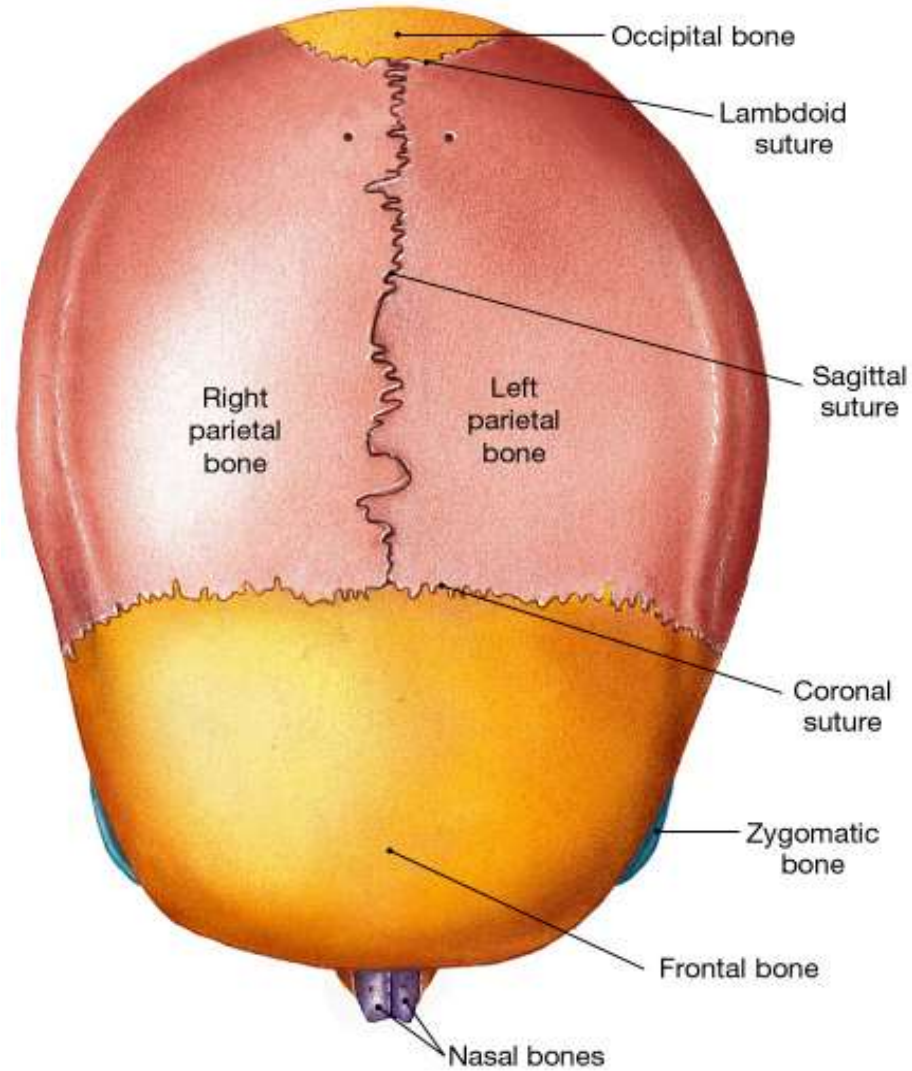
- Spazi chiusi da connettivo fibroso denso
- Articolano alcune ossa del neurocranio
- Favoriscono il passaggio del feto nel canale del parto
- aiutano la rapida crescita dell'encefalo durante la vita neonatale



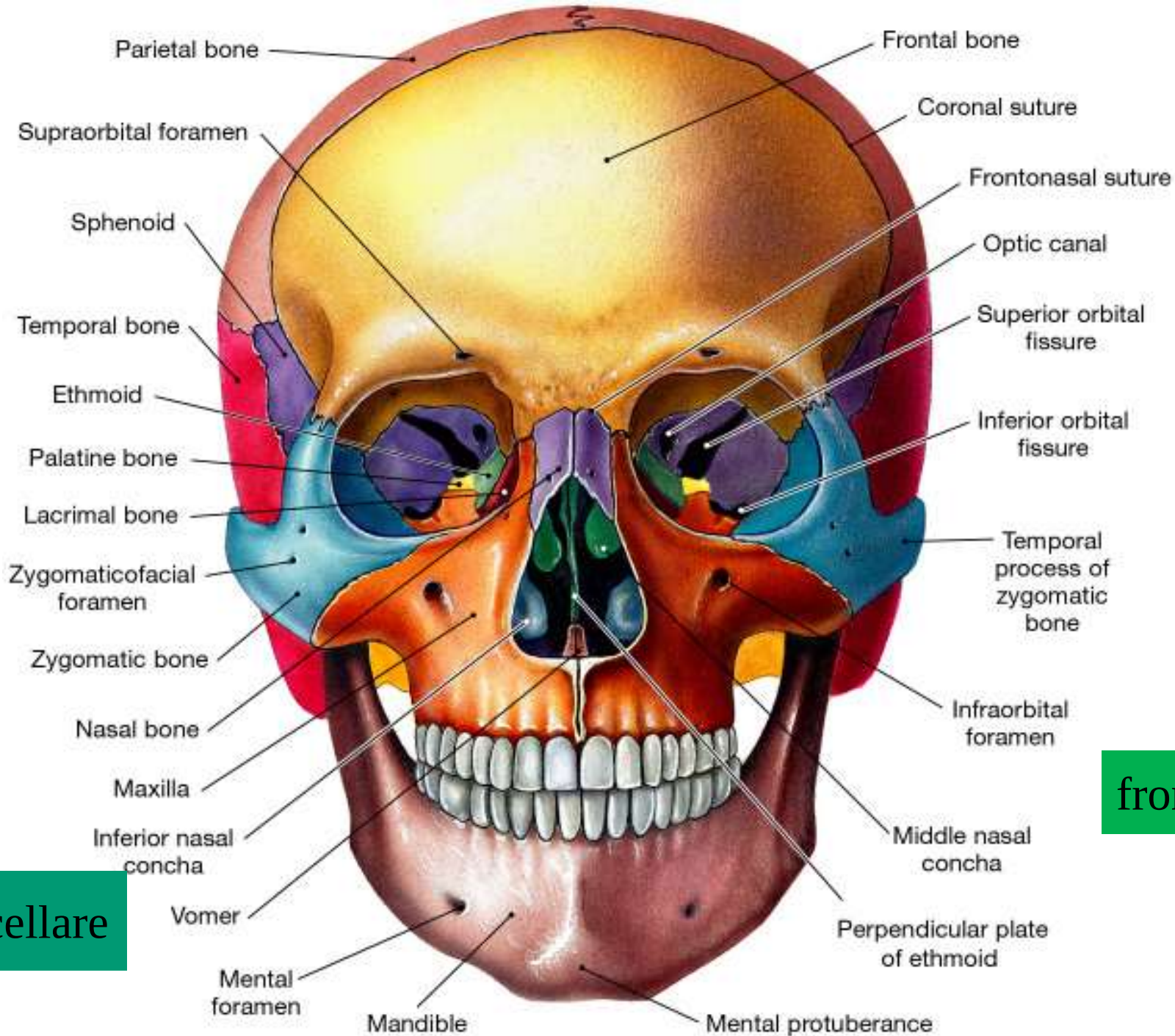
Cranio (visione posteriore/superiore)



(a) Posterior view



(b) Superior view



frontale

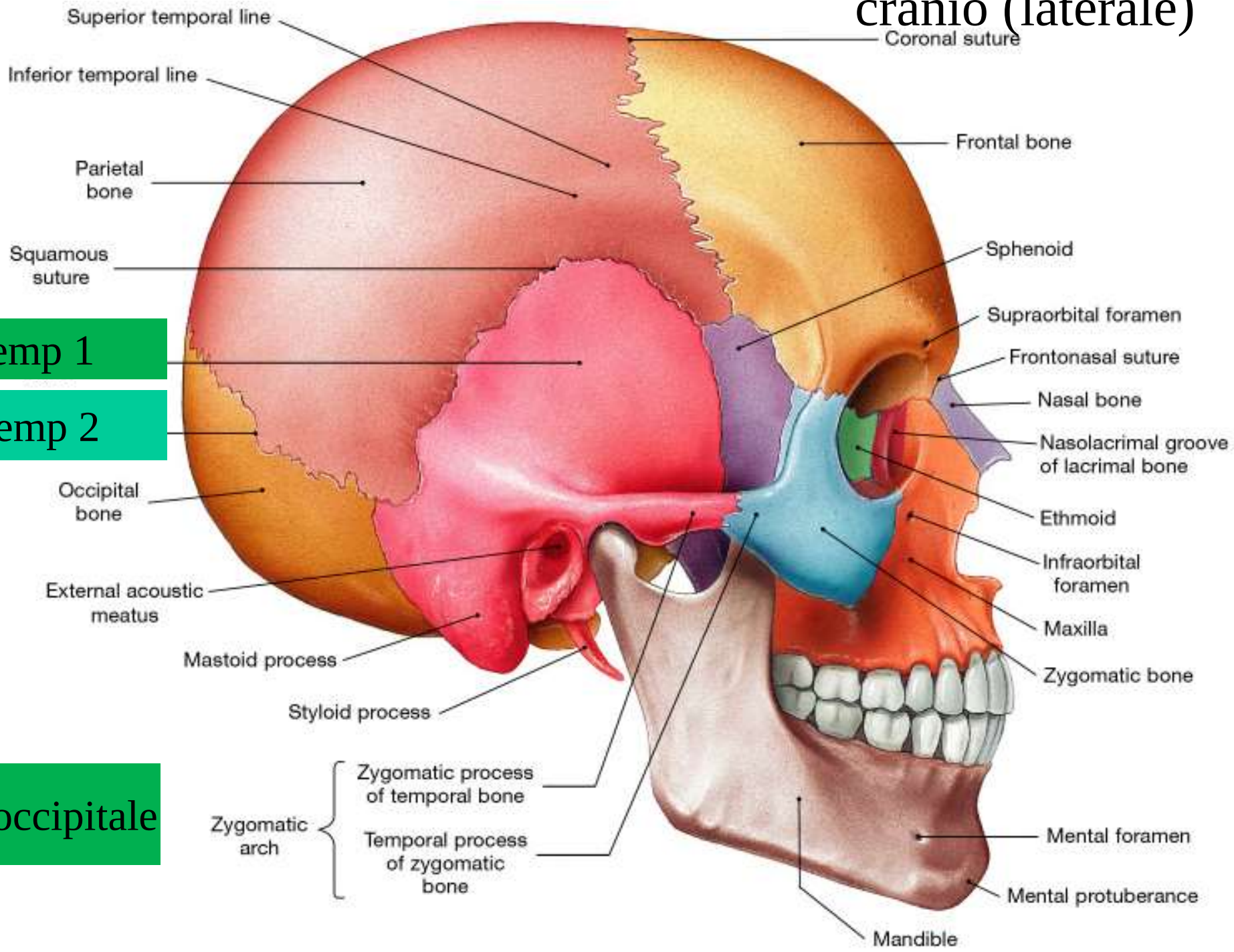
mascellare

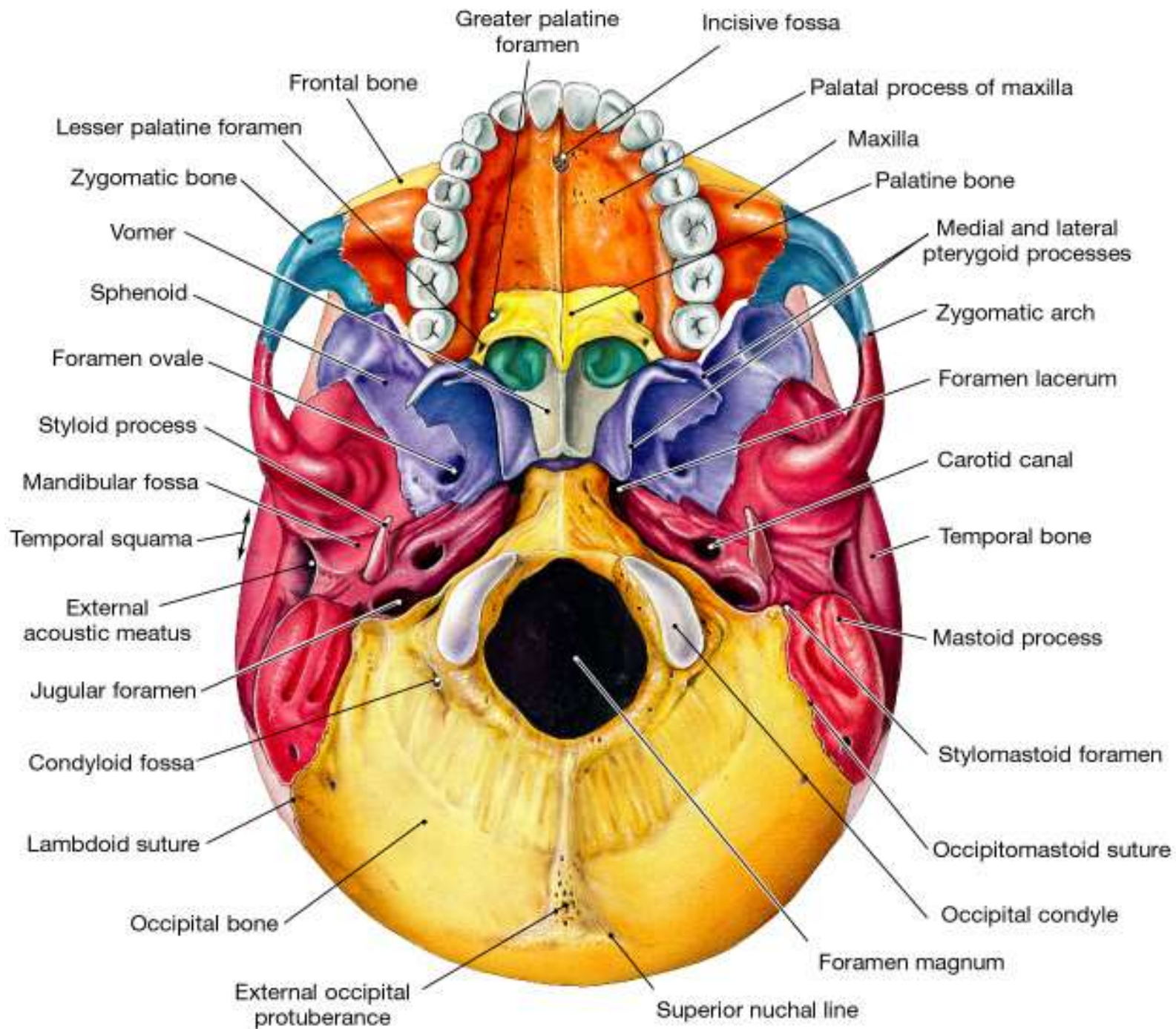
cranio (laterale)

Temp 1

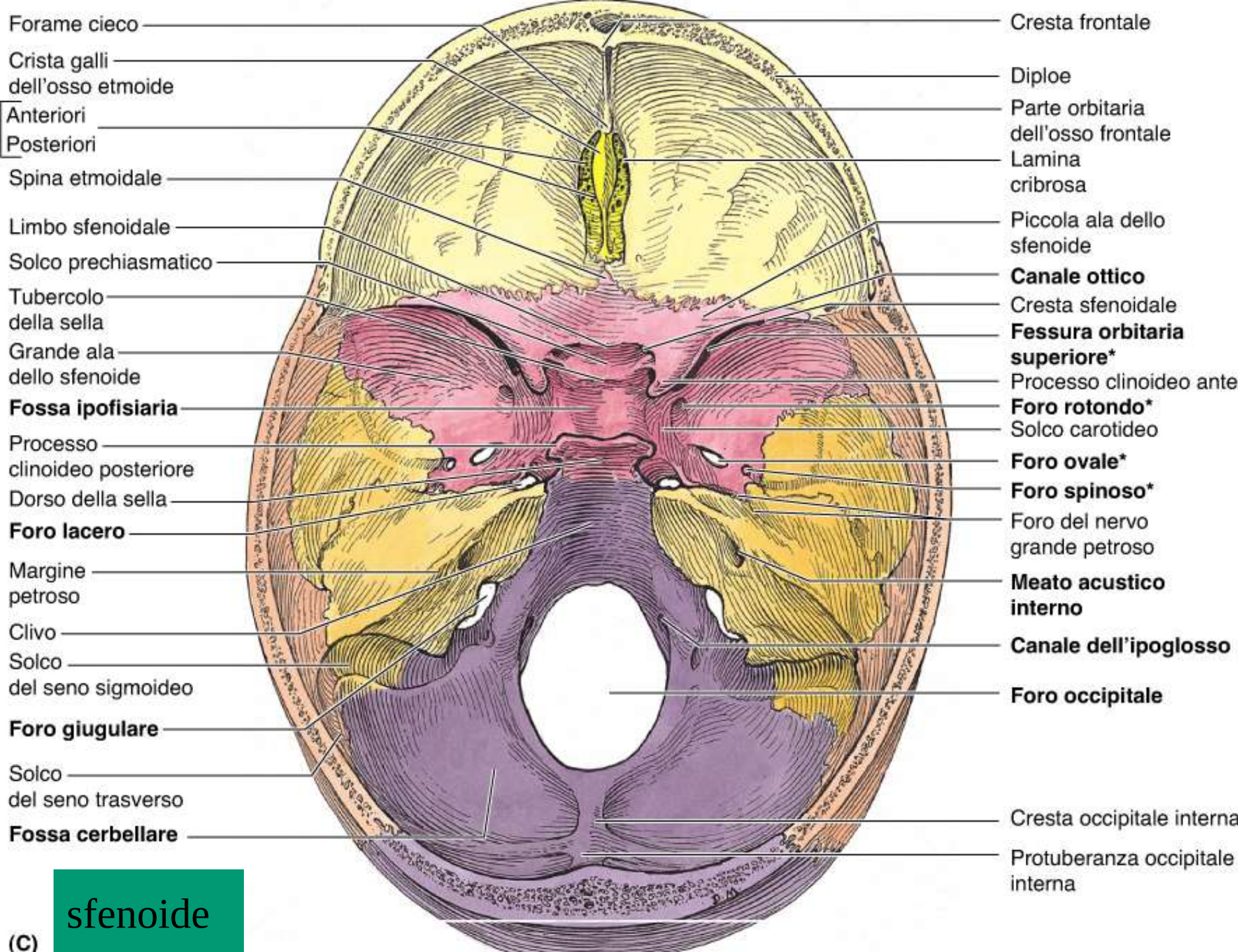
Temp 2

occipitale



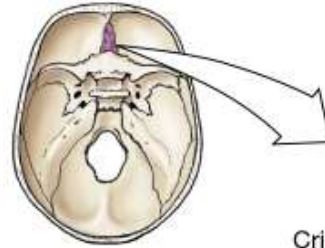


(e) Inferior view, mandible removed



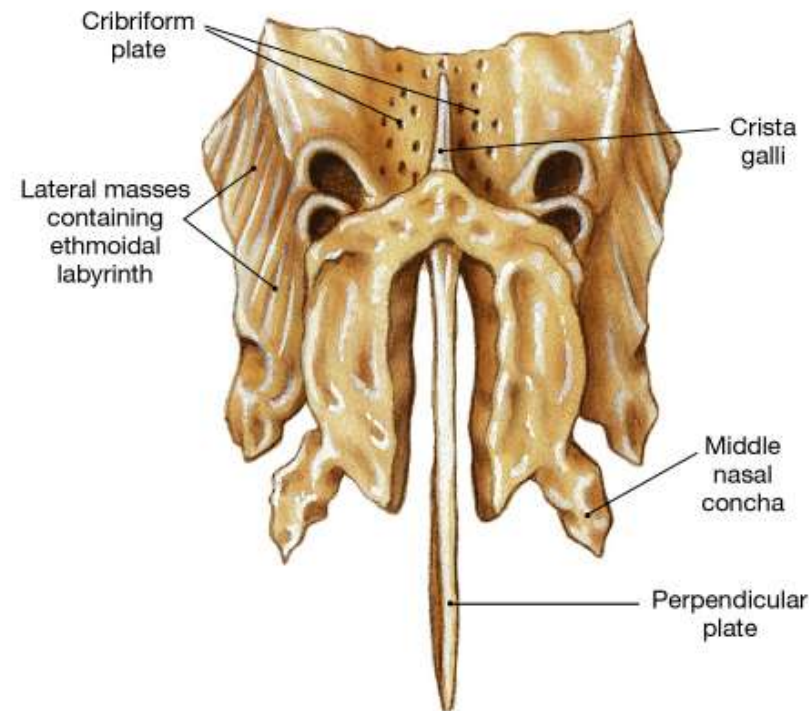
sfenoide

Ossa del neurocranio



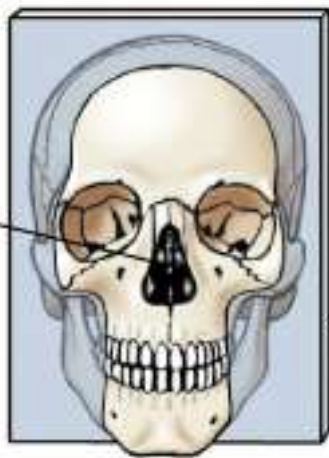
- Etmoide

- Formato da una lamina orrizzontale, una verticale e due masse laterali
- Forma parte delle cavità orbitarie
- Form parte delle cavità nasali
- Lamina orrizzontale è cribrosa, e dà passaggio ai filuzzi del nervo olfattivo



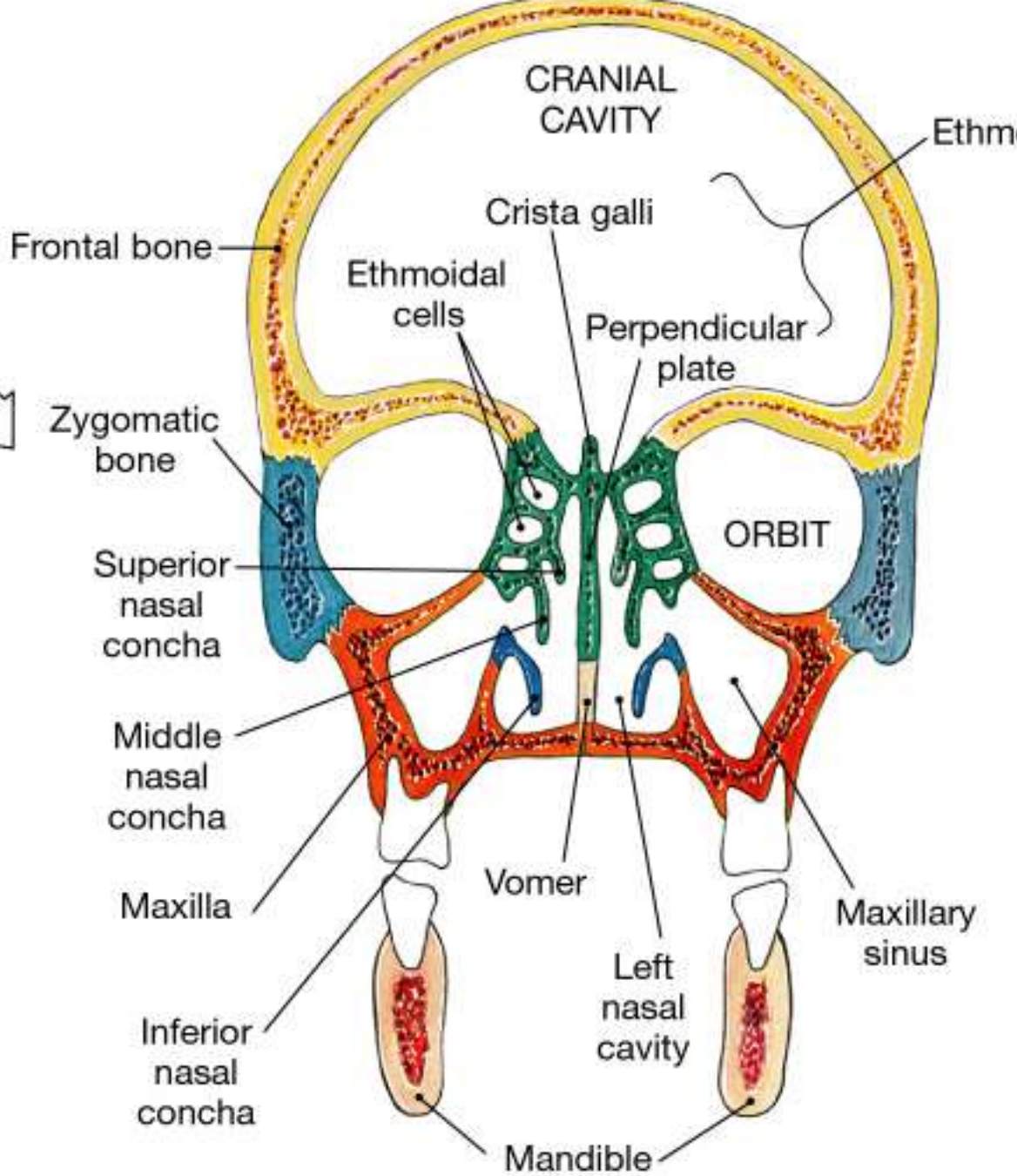
(b) Anterior view

Nasal
septum



Sezione frontale

sfenoide



(d) Frontal section

- **CAVITA' NASALI:**

- 1) Narice esterna.
- 2) Vestibolo: rivestito di cute con vibrisse.
- 3) Apertura piriforme
- 4) Fosse nasali:

Pavimento ⇒ palato osseo (mascellare e palatino) e palato molle;

Parete mediale ⇒ setto nasale (cartilagineo e osseo – lamina verticale dell'etmoide e vomere);

Parete laterale ⇒ mascellare etmoide e palatino, con tre cornetti ossei per lato ⇒ turbolenza;

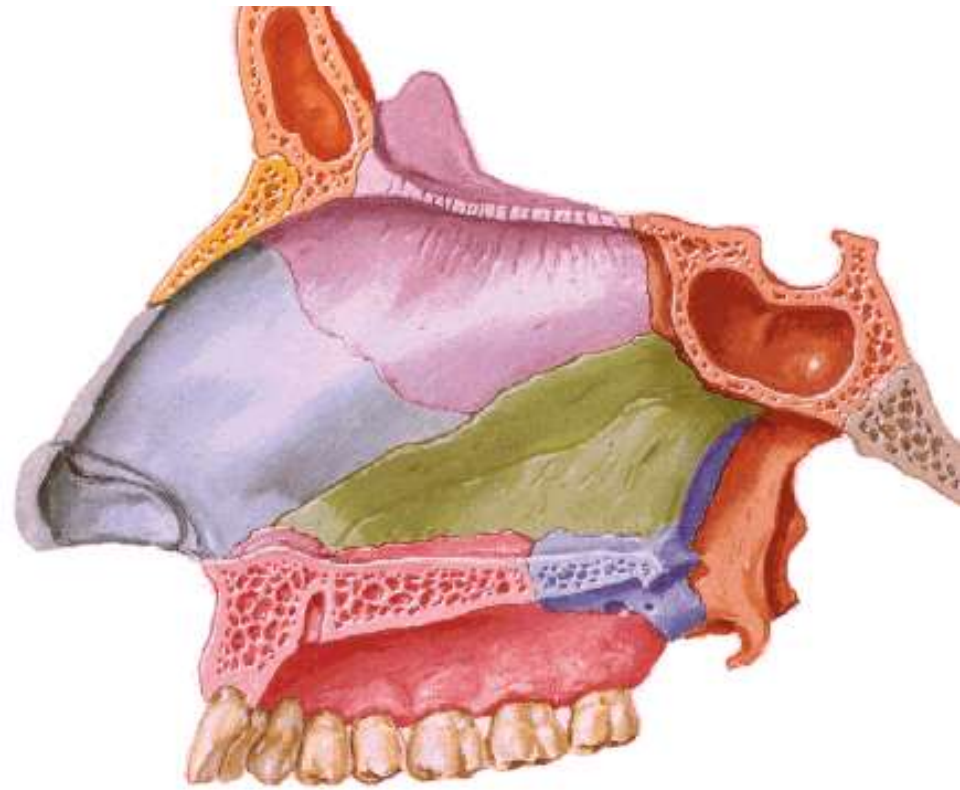
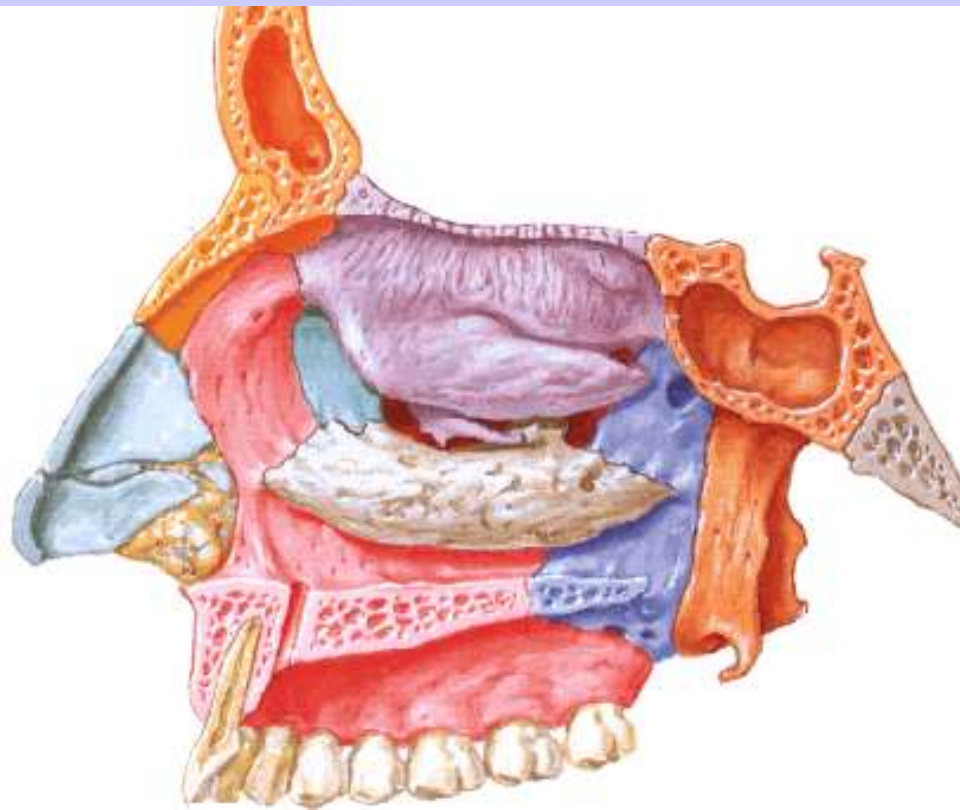
Tetto ⇒ ossa nasali, frontale, **lamina cribrosa etmoide**, sfenoide

- 5) Coane, limite posteriore delle cavità nasali, si aprono nella faringe

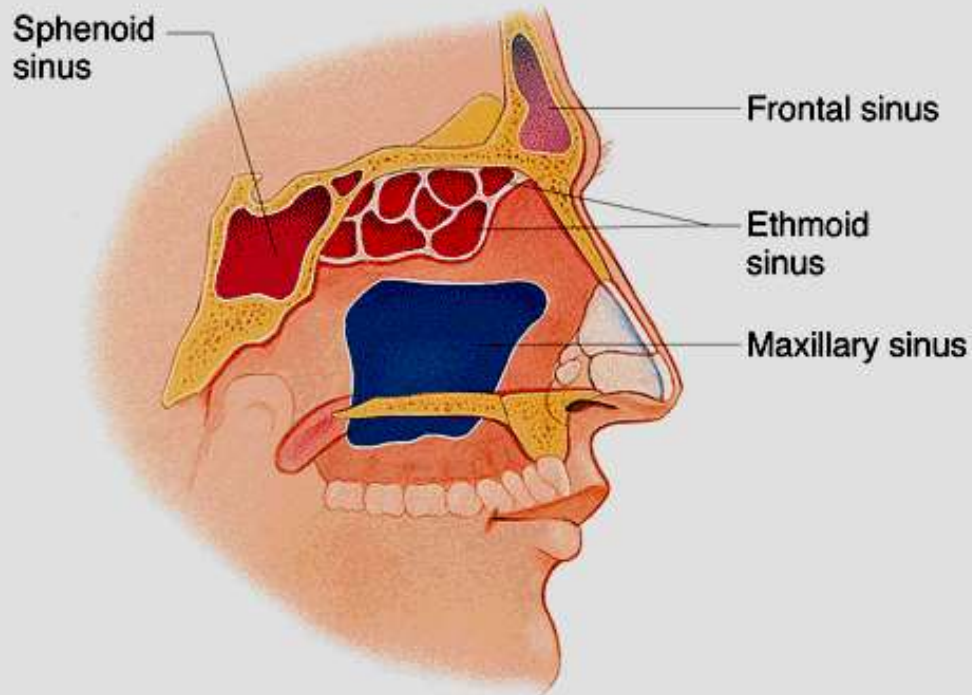
Cavitò nasali osso

Cavitò nasali mucosa

LIVEcavitànasali

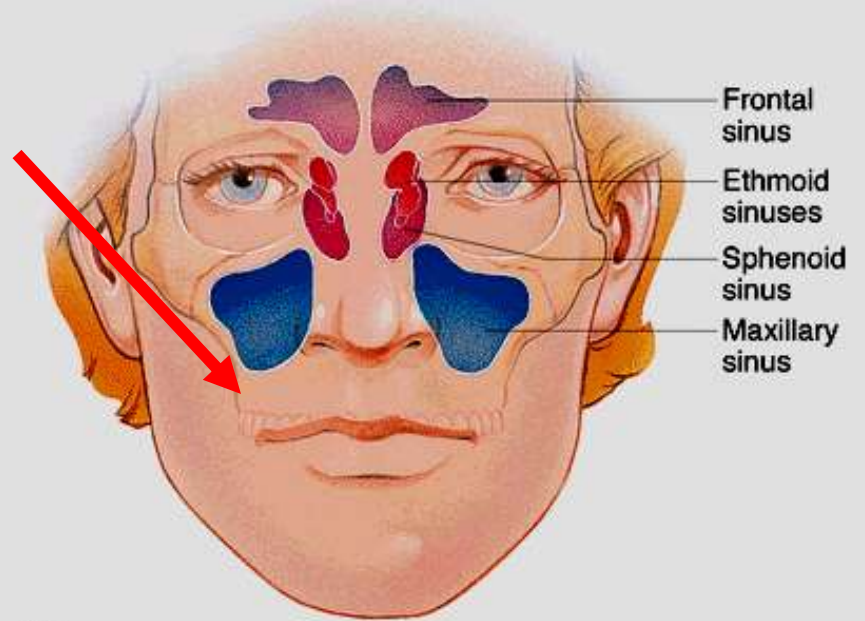


Seni Paranasali



(b)

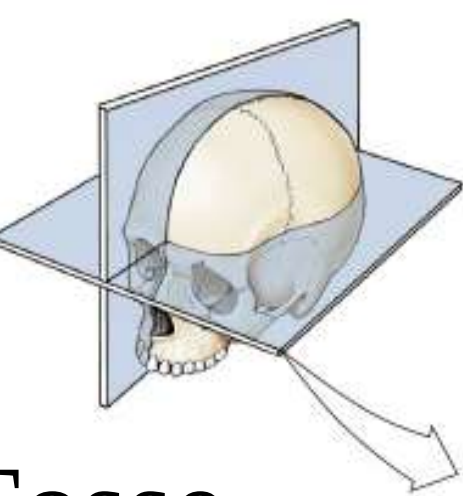
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(a)

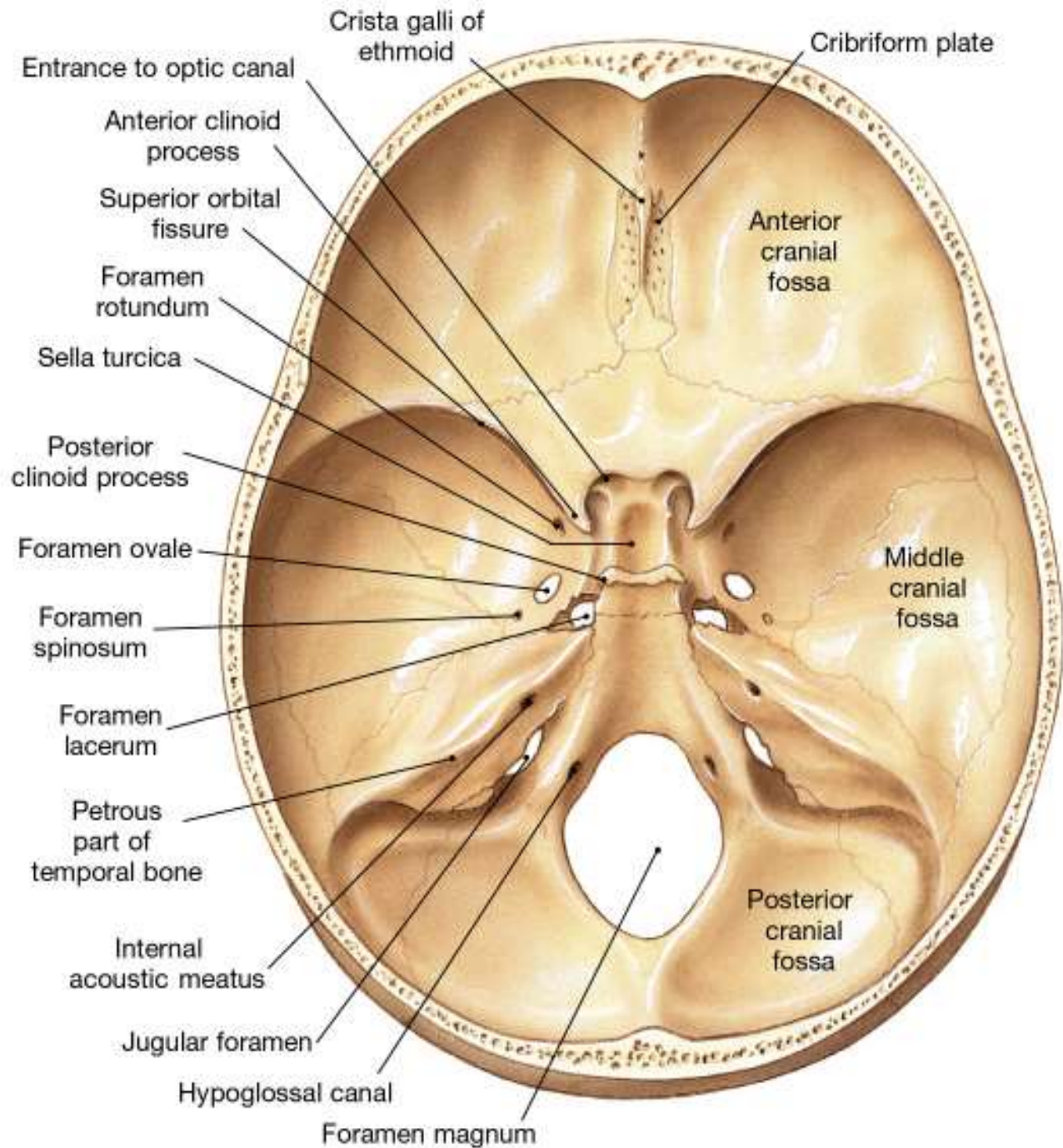
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Seni paranasali

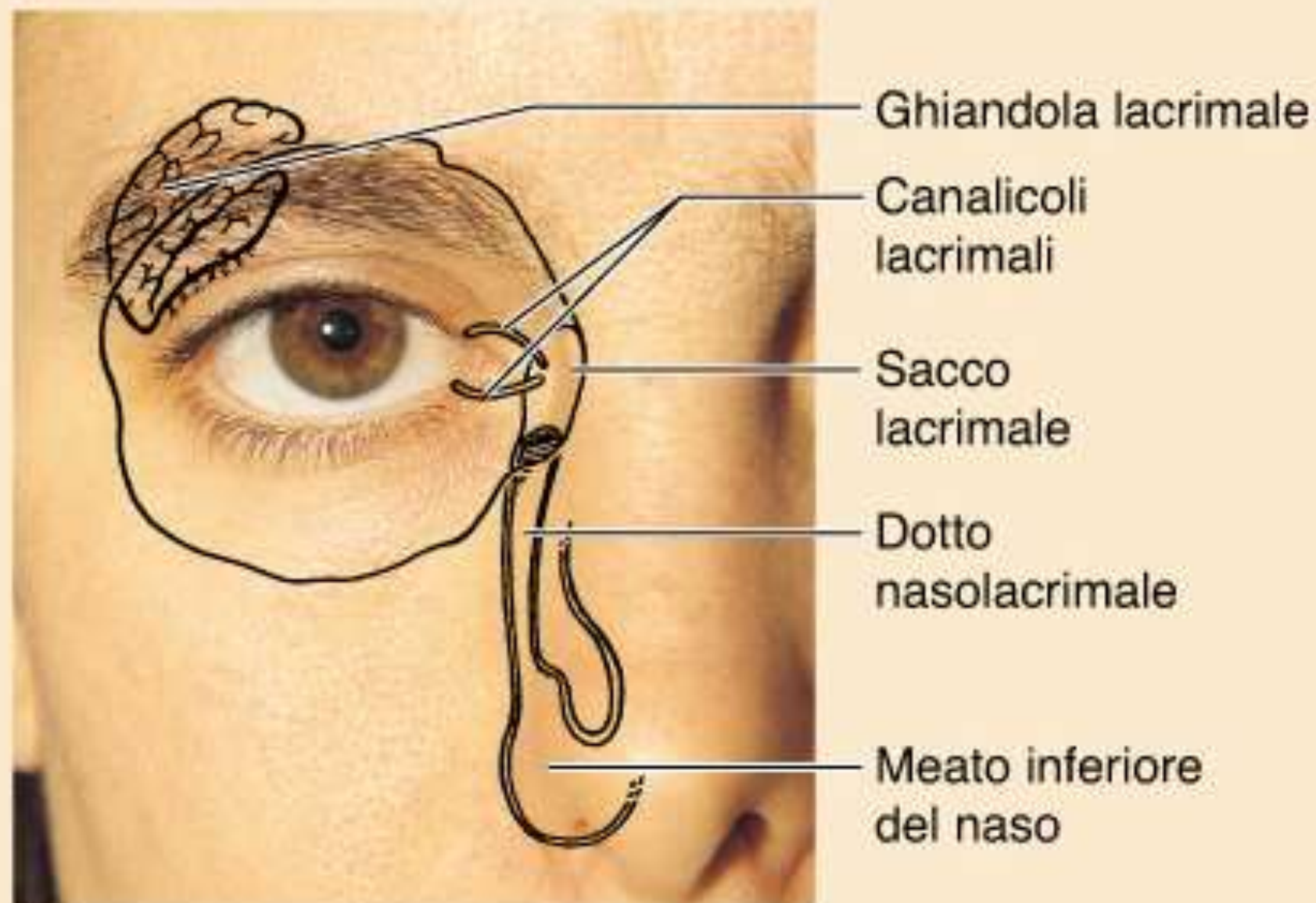


Fosse Craniche

Fosse Craniche



(b) Horizontal sections, superior view

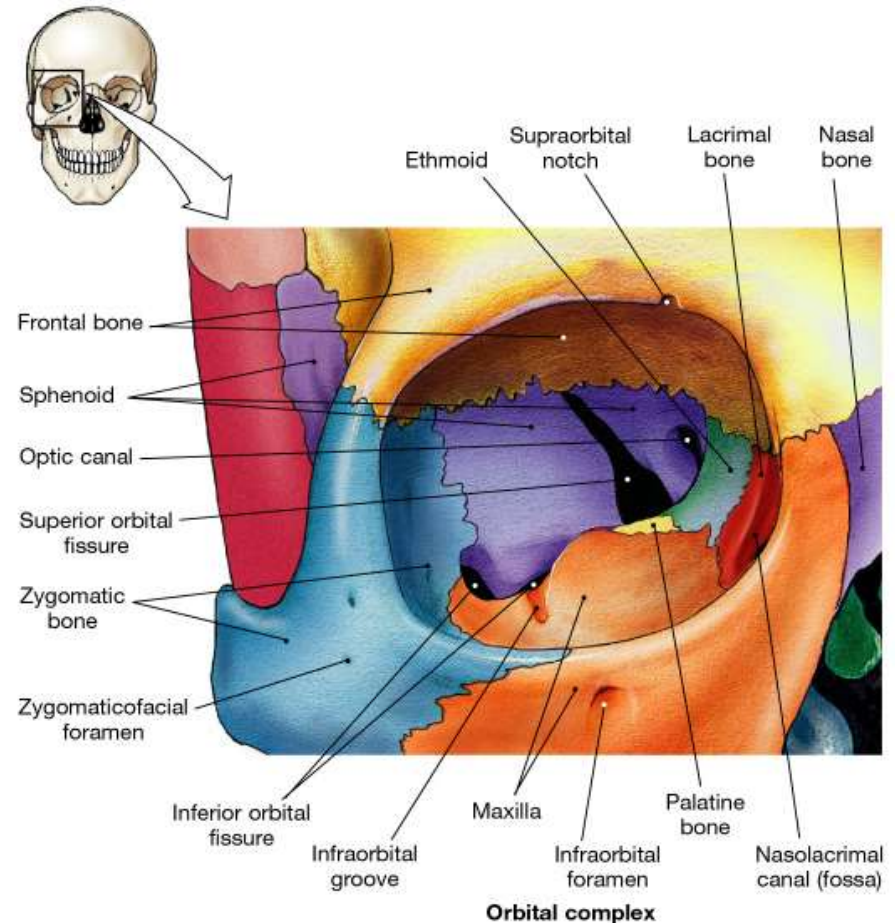


Cavità orbitaria

- Contiene il bulbo oculare, I muscoli oculari, vasi e nervi, ghiandola e sacco lacrimali

- Sette ossa

- Frontale
- Lacrimale
- Palatino
- Zigomatico
- Etmoide
- Sfenoide
- Mascellare

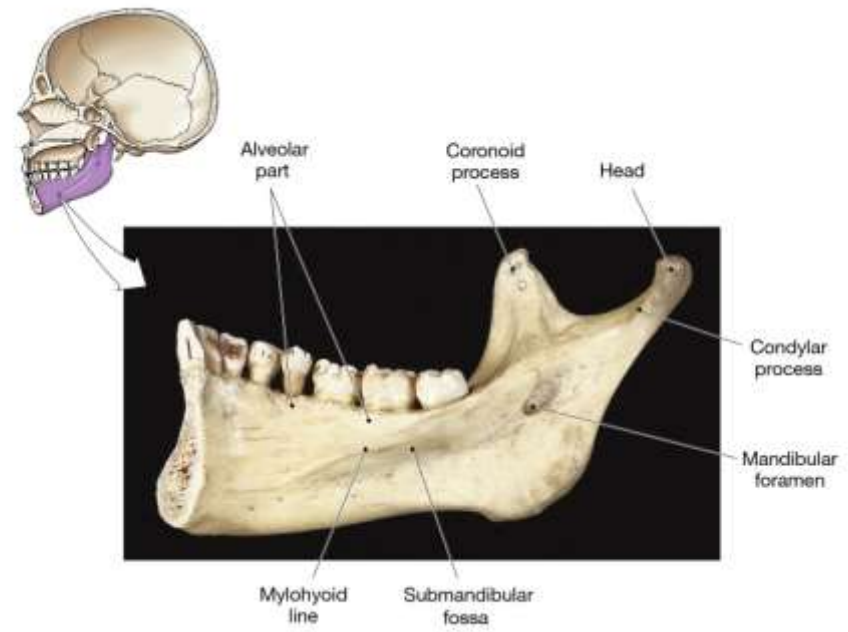
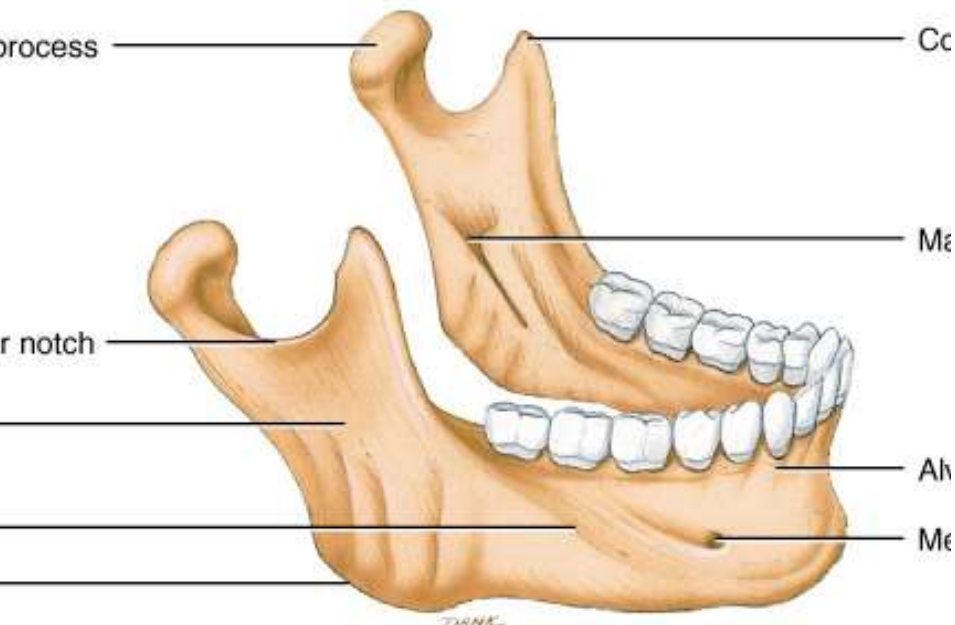
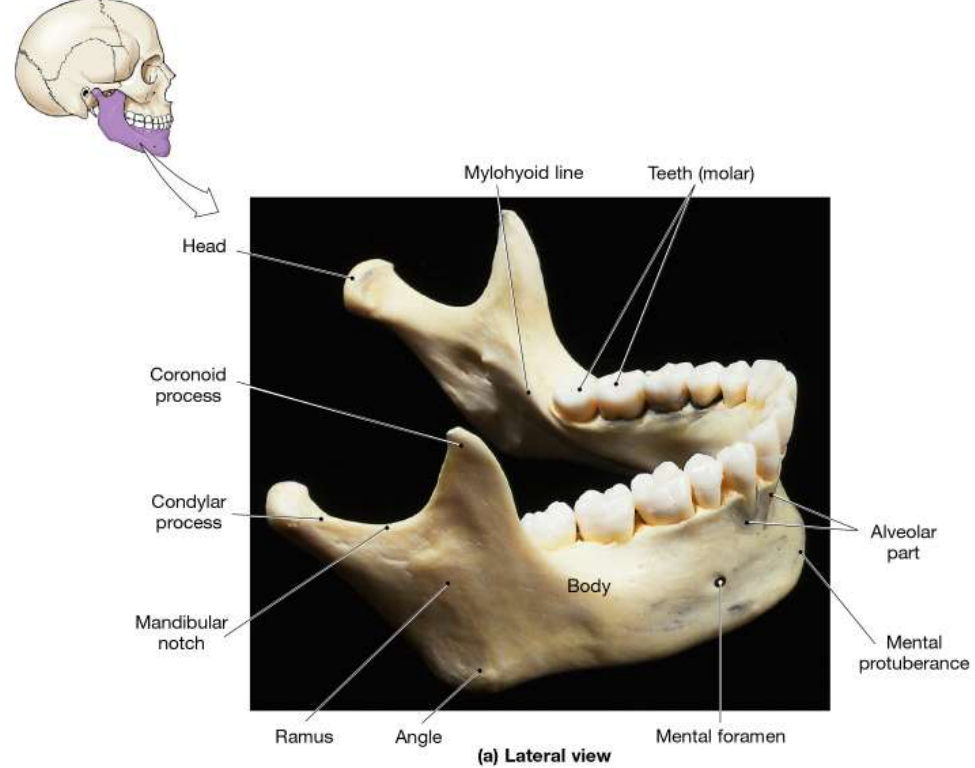


Ossa dello splancnocranio

- **Mandibola**
- Si articola con l'osso temporale
- Corpo, angolo e ramo
- Processi coronoidei e condiloidei
- Processi alveolari inferiori
- Fori mentali (esterni) e mandibolari (interno)
- Spina di Spix

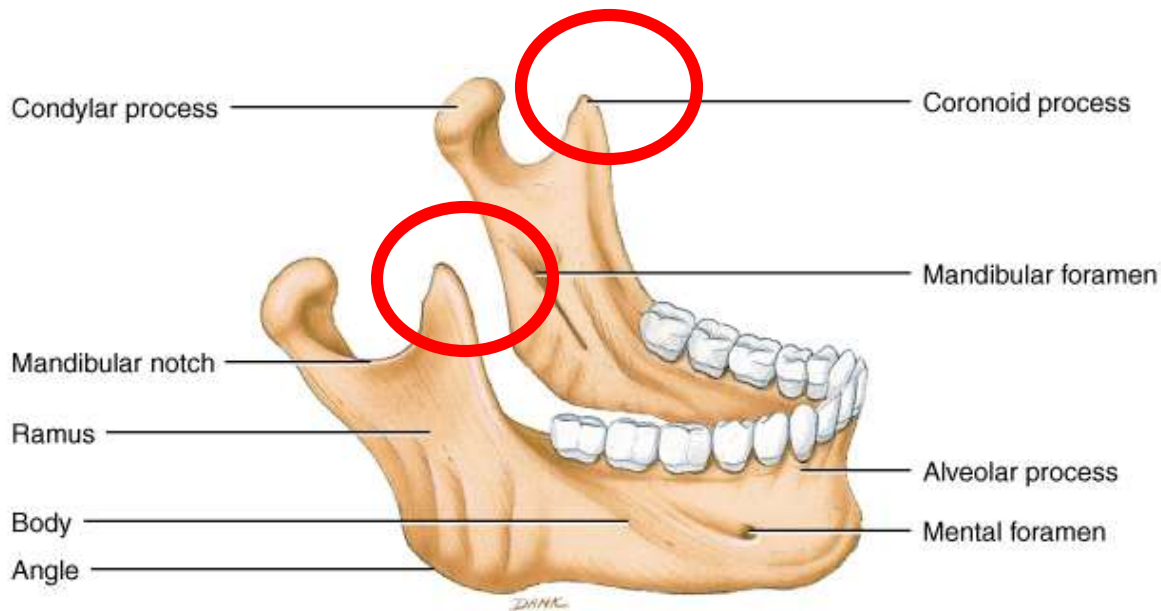
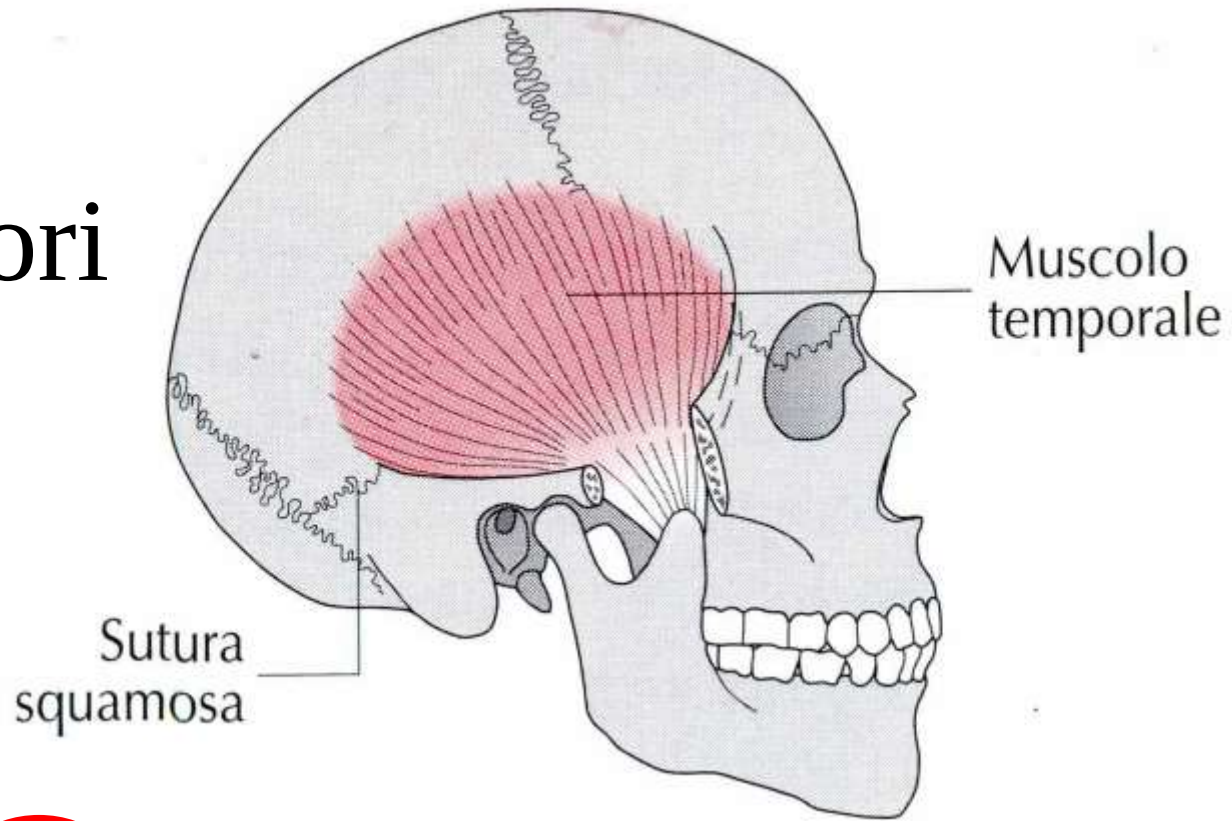
Mandibola

mandibola



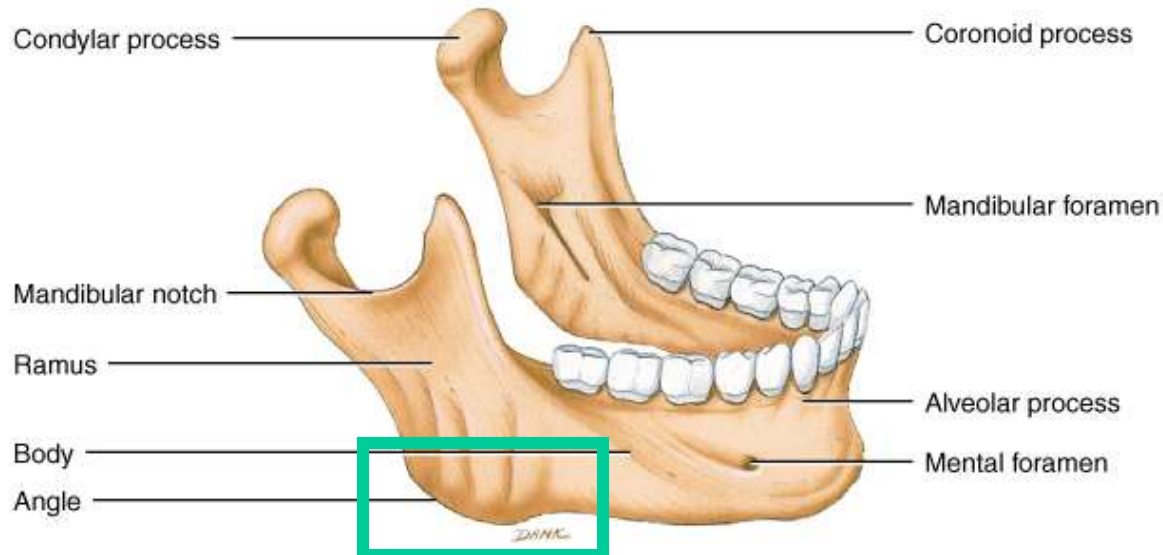
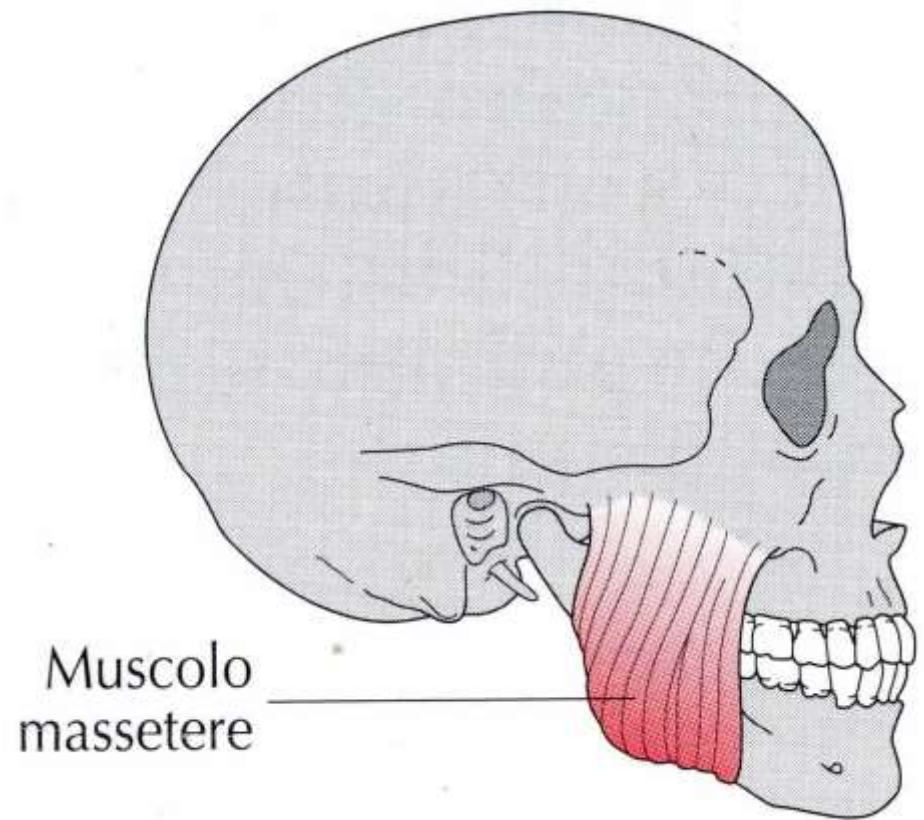
Mm masticatori

- M temporale



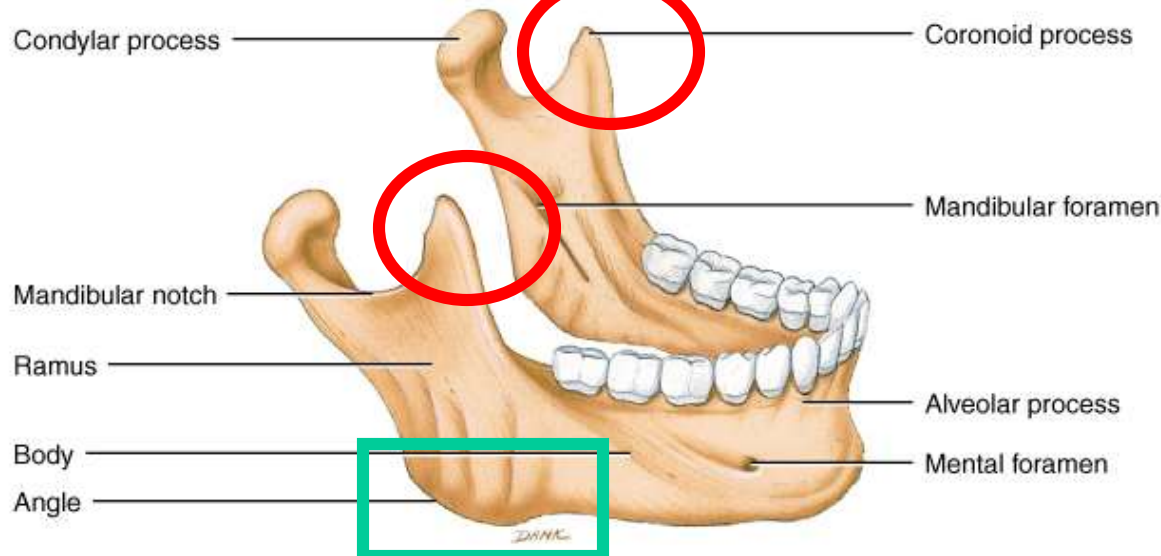
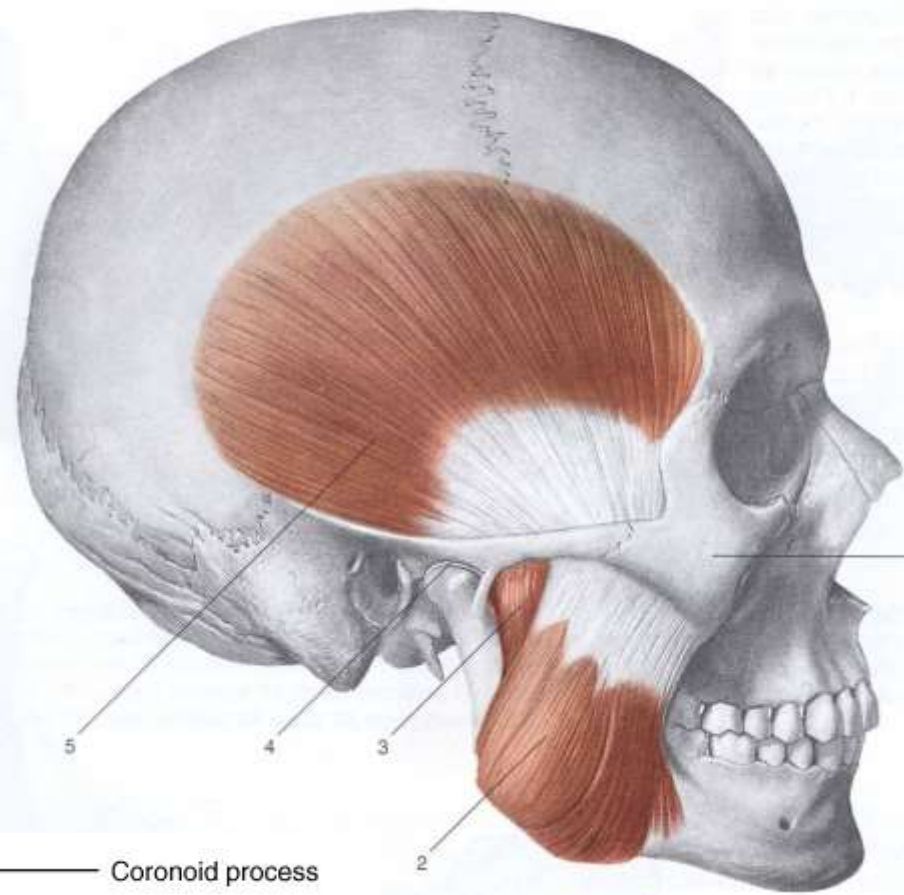
Mm masticatori

- M massetere

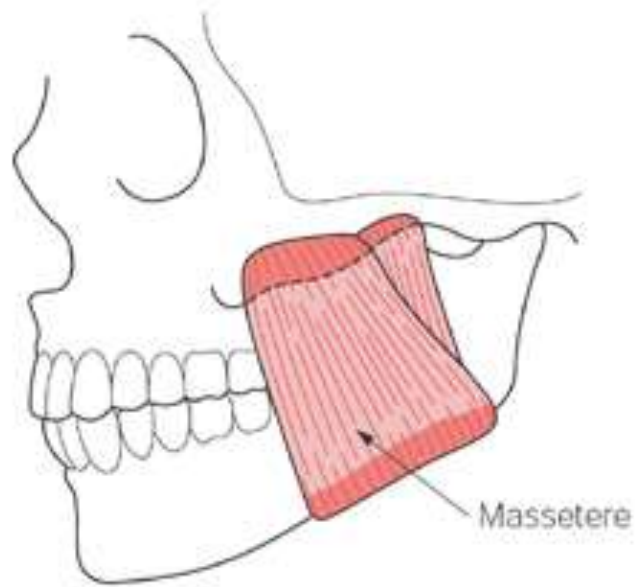


Mm masticatori

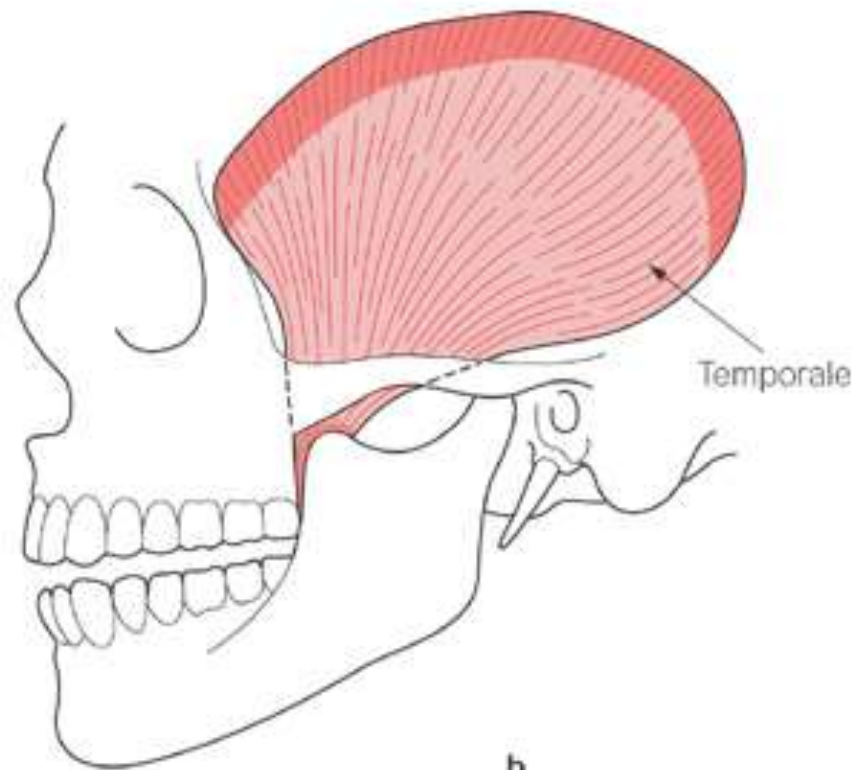
- M temporale
- M massetere
- M pterigoideo esterno
- M pterigoideo interno



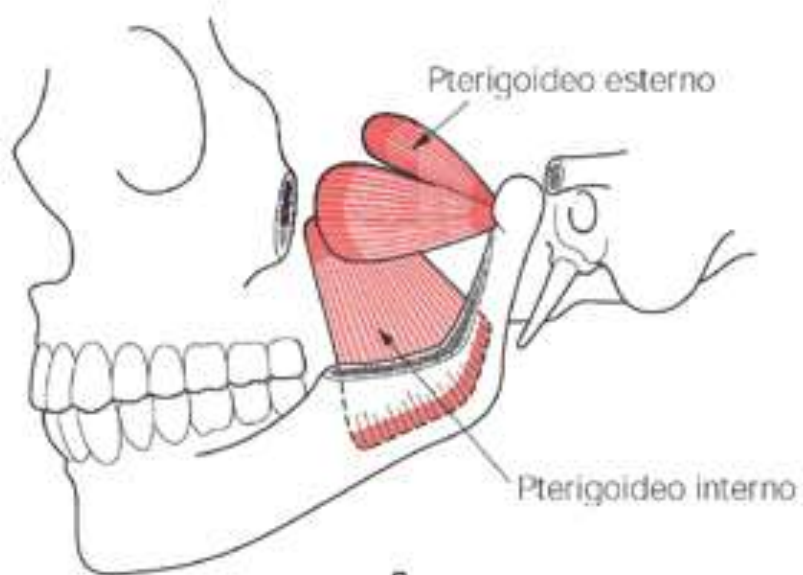
Mm masticatori



a



b



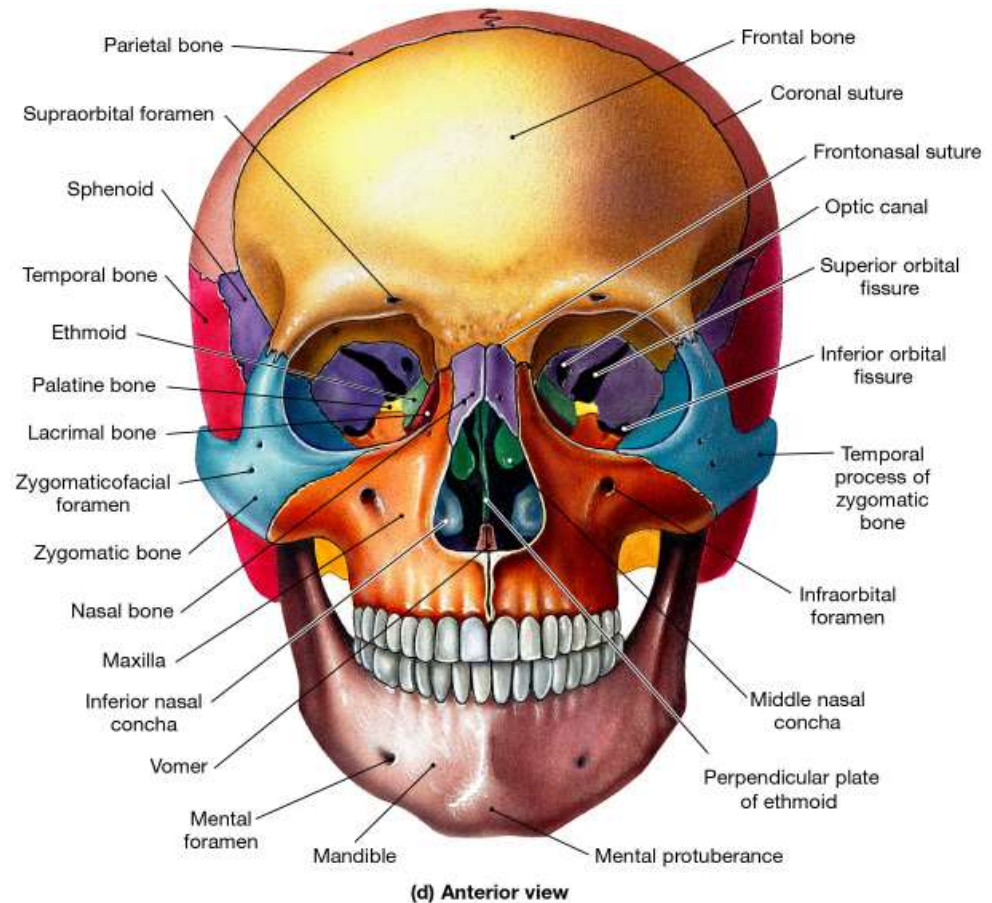
c

FINE CRANIO

Ossa dello splancnocranio

- **Ossa nasali**

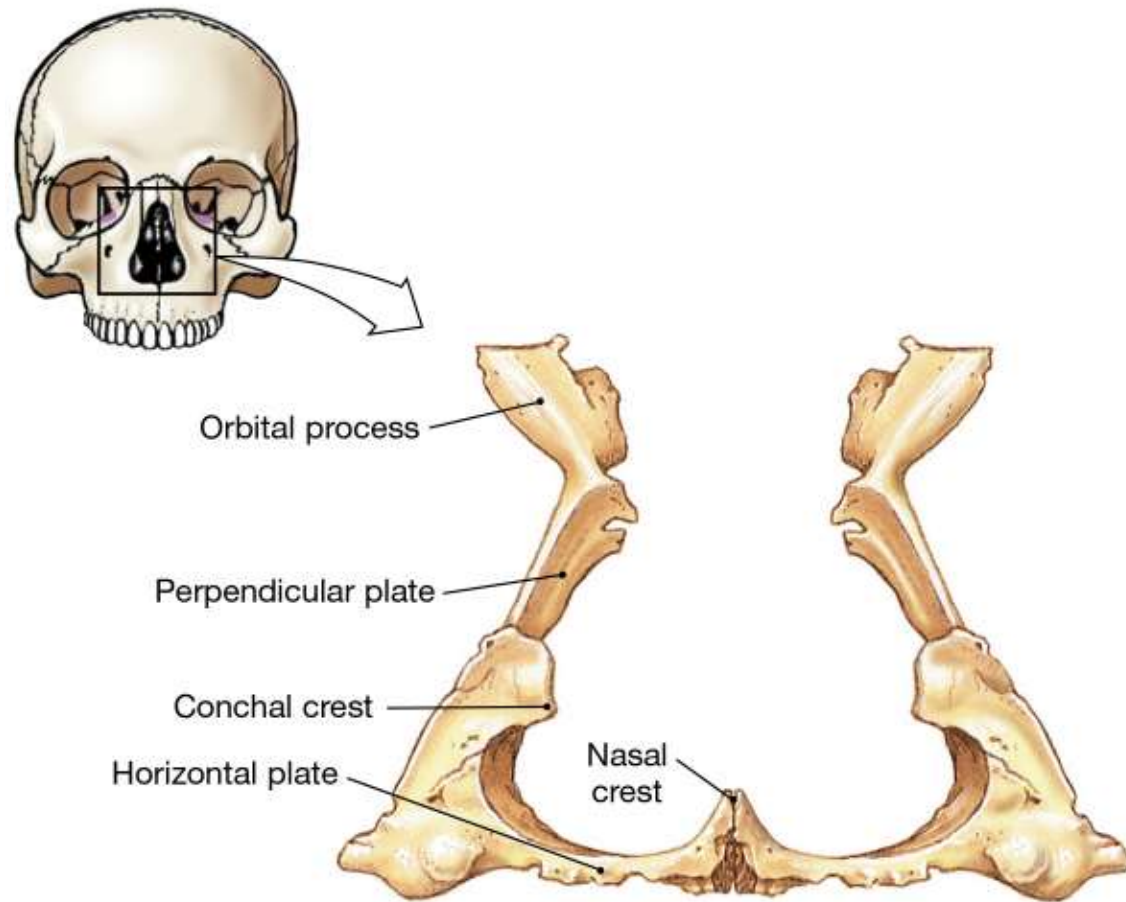
- pari
- Si articolano col frontale e mascellare
- Apertura piriforme



Ossa dello splancnocranio

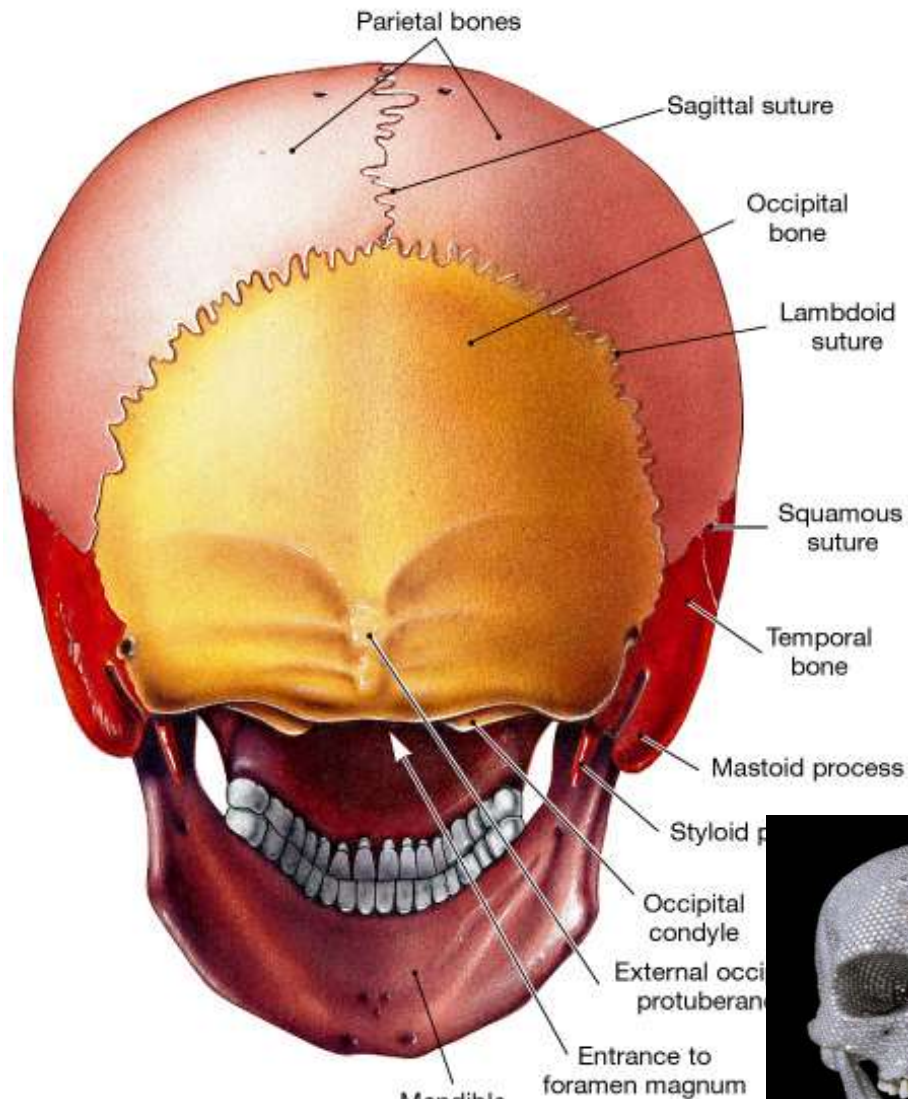
- **Osso Palatino** (pari)

- Piccolo, a forma di L
- Forma la parte posteriore del palato osseo
- Contribuisce al pavimento delle cavità orbitarie

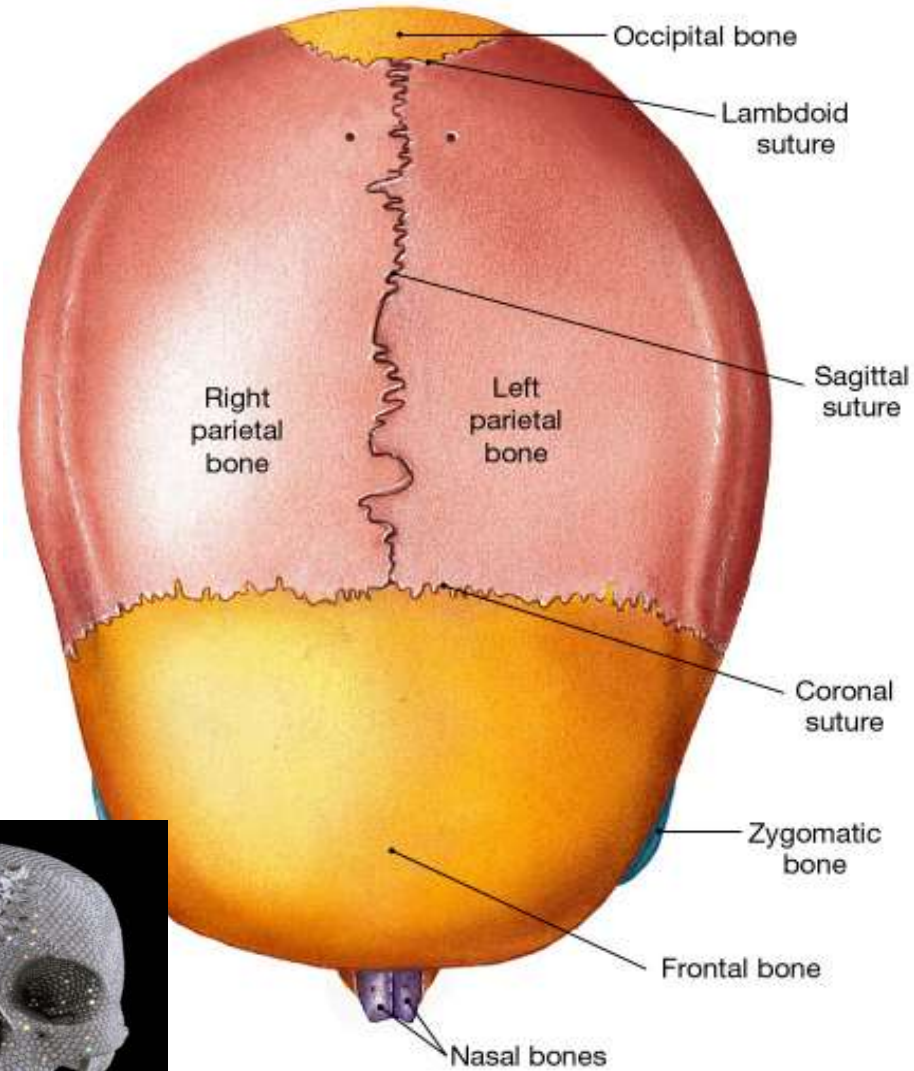


(a) Palatine bones, anterior view

Cranio (visione posteriore/superiore)

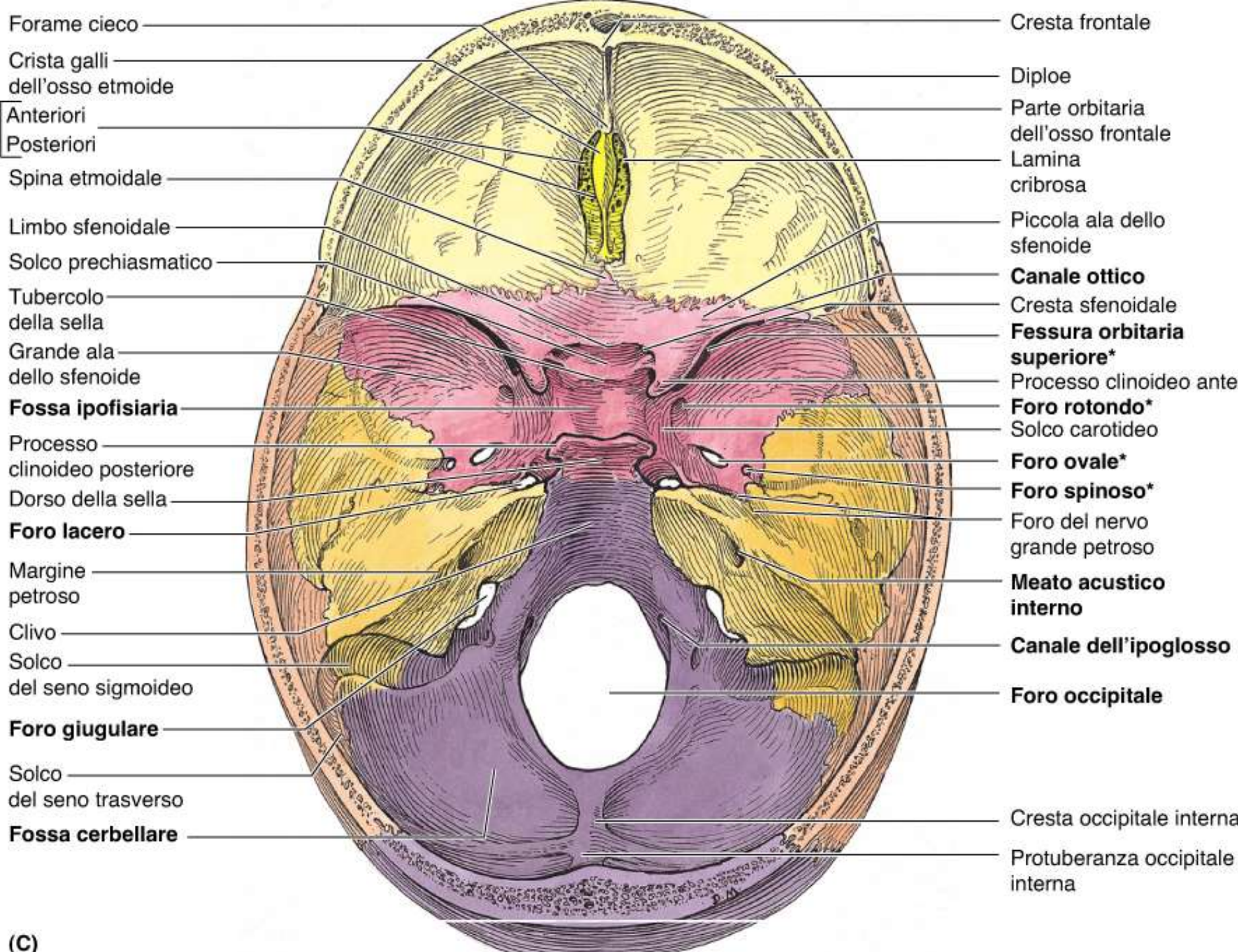


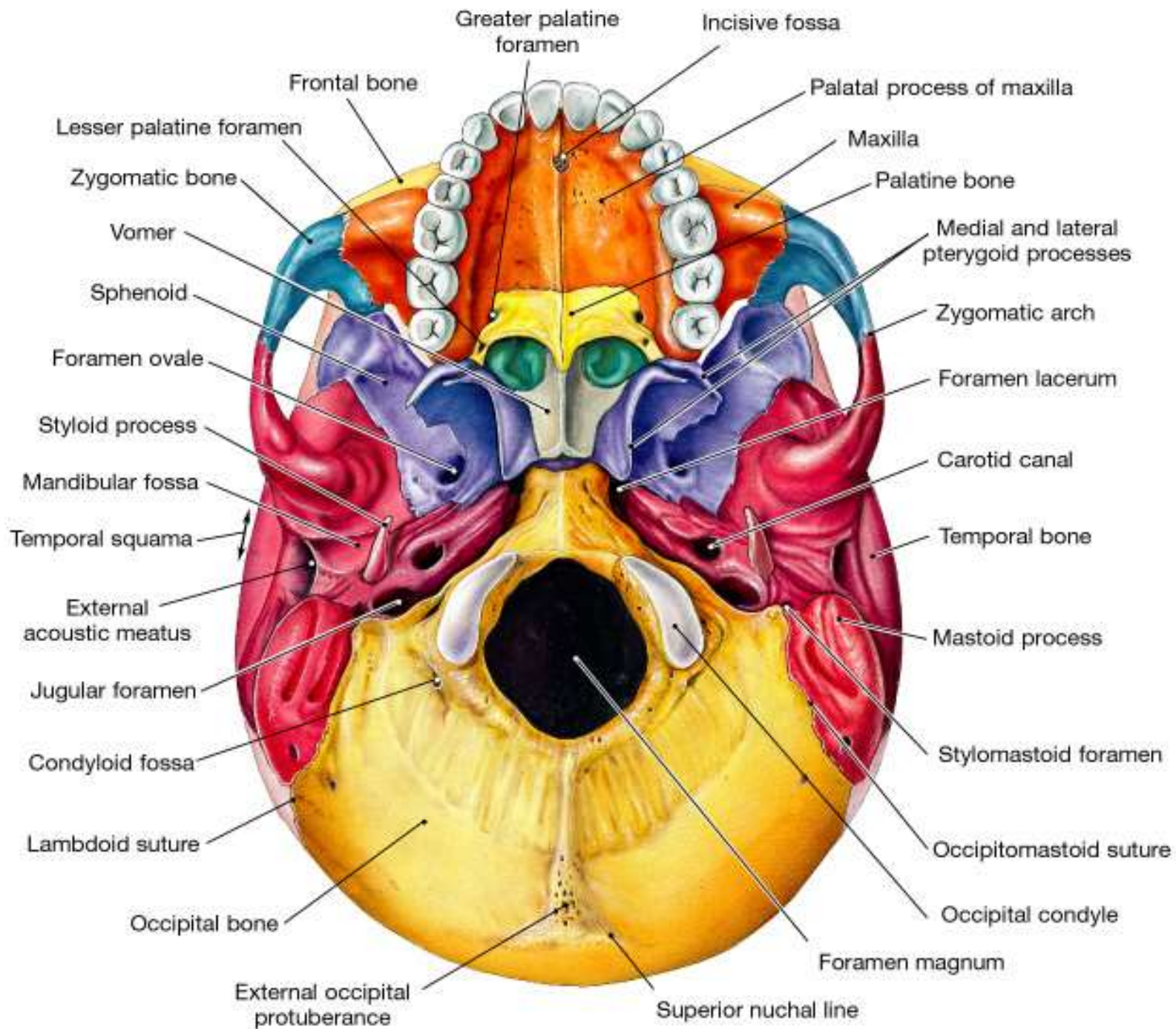
(a) Posterior view



(b) Superior view

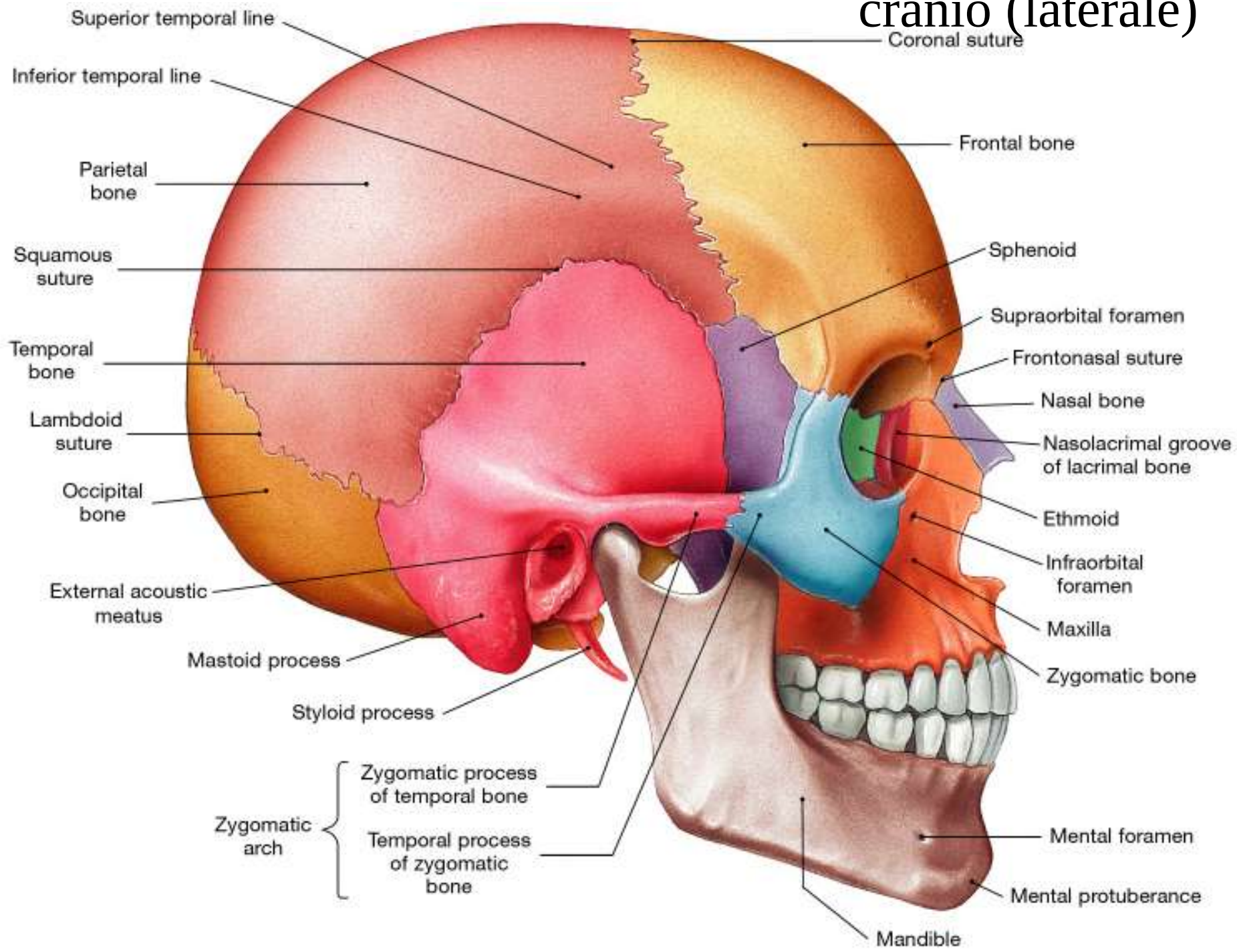




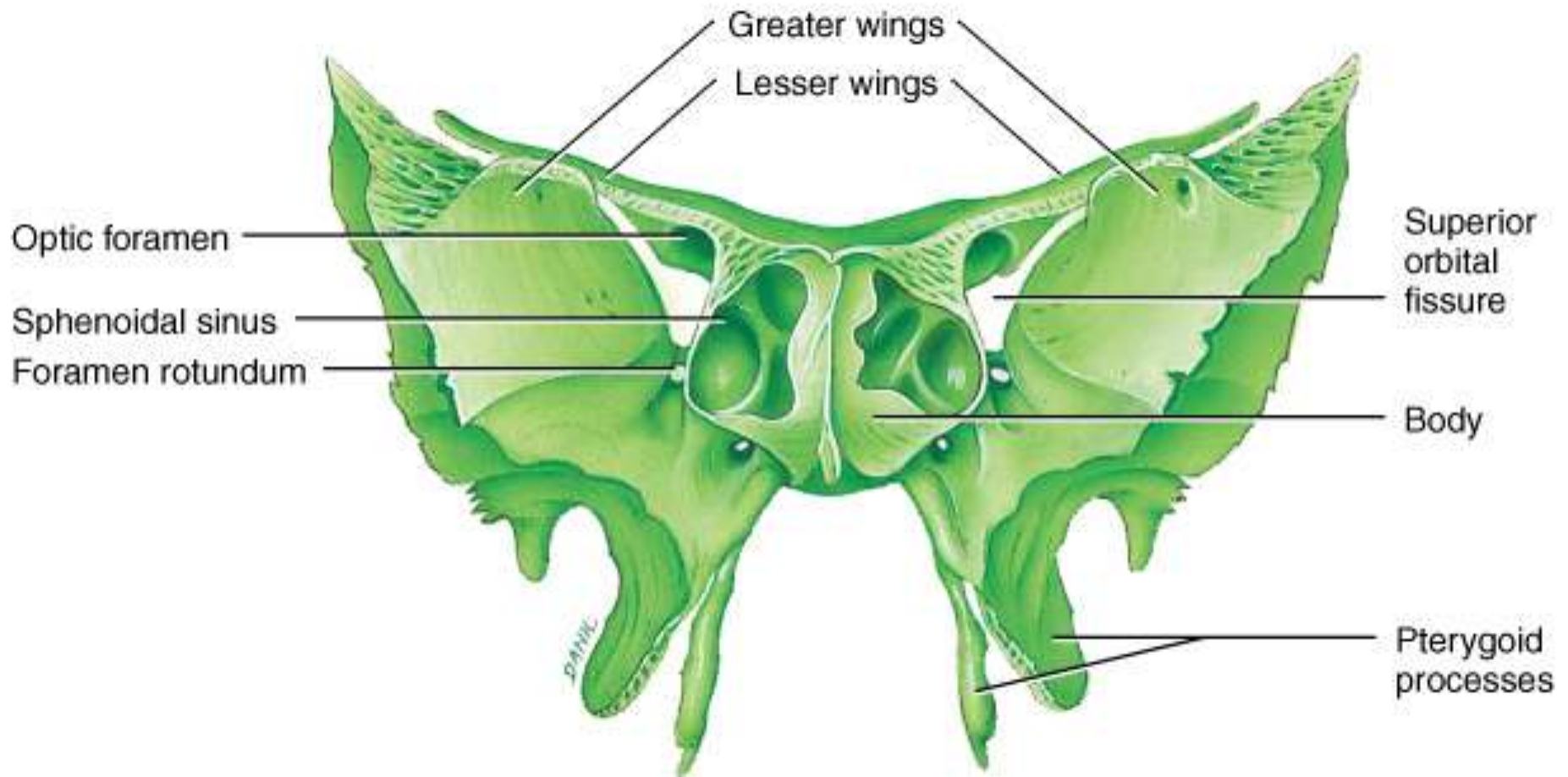


(e) Inferior view, mandible removed

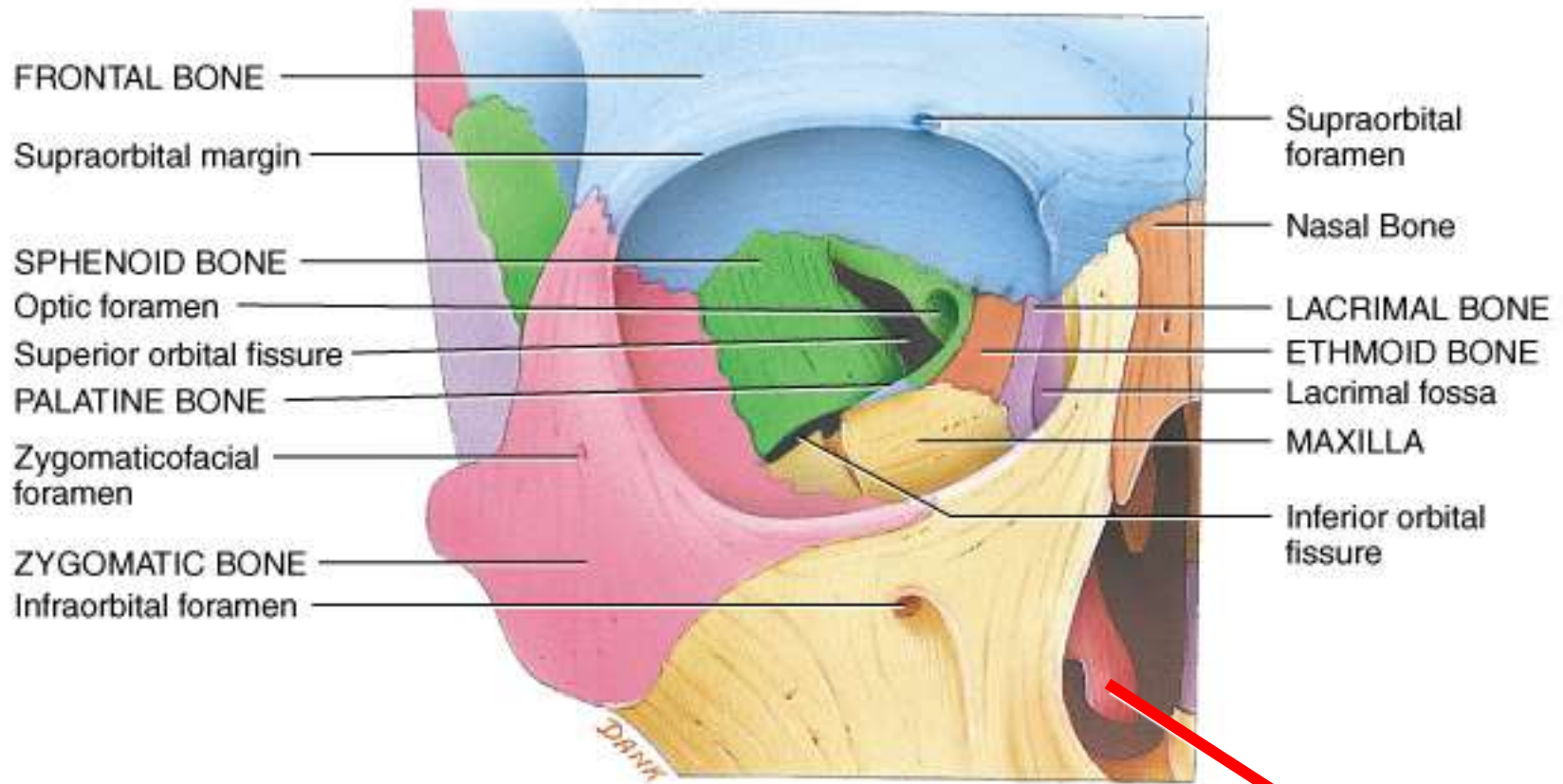
cranio (laterale)



Sfenoide in visione anteriore



Ossa dello splancnocranio



Conca nasale inferiore

- Conca nasale inferiore o turbinato
- Gli altri 2 turbinati fanno parte dell'etmoide, questo è un osso indipendente

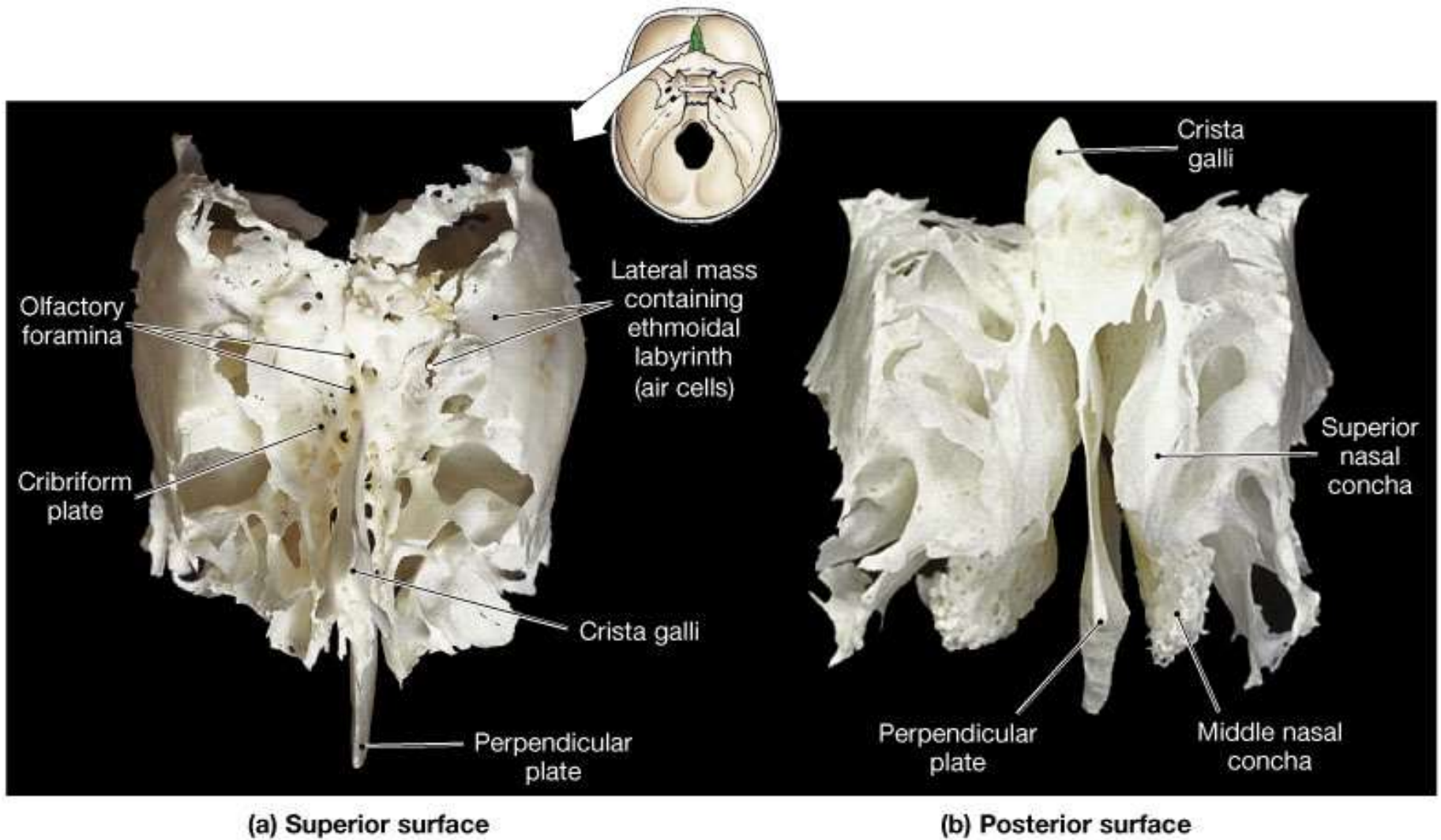
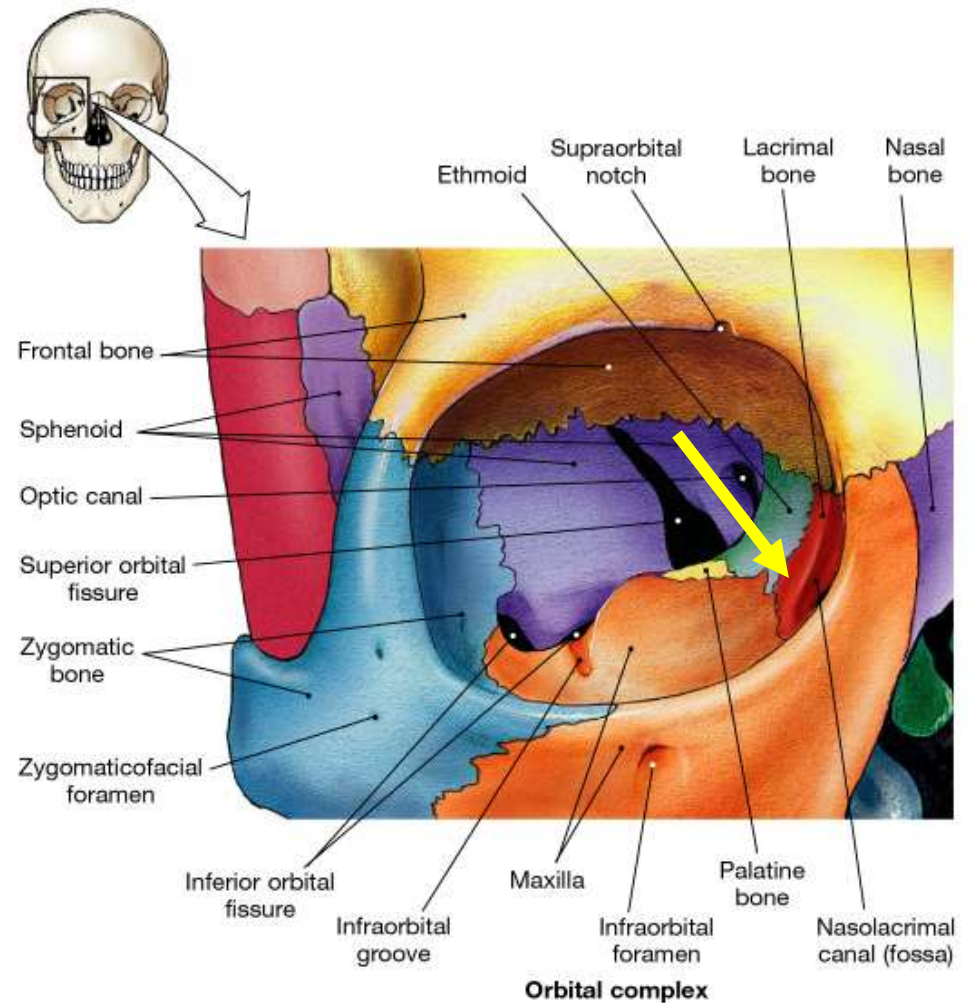


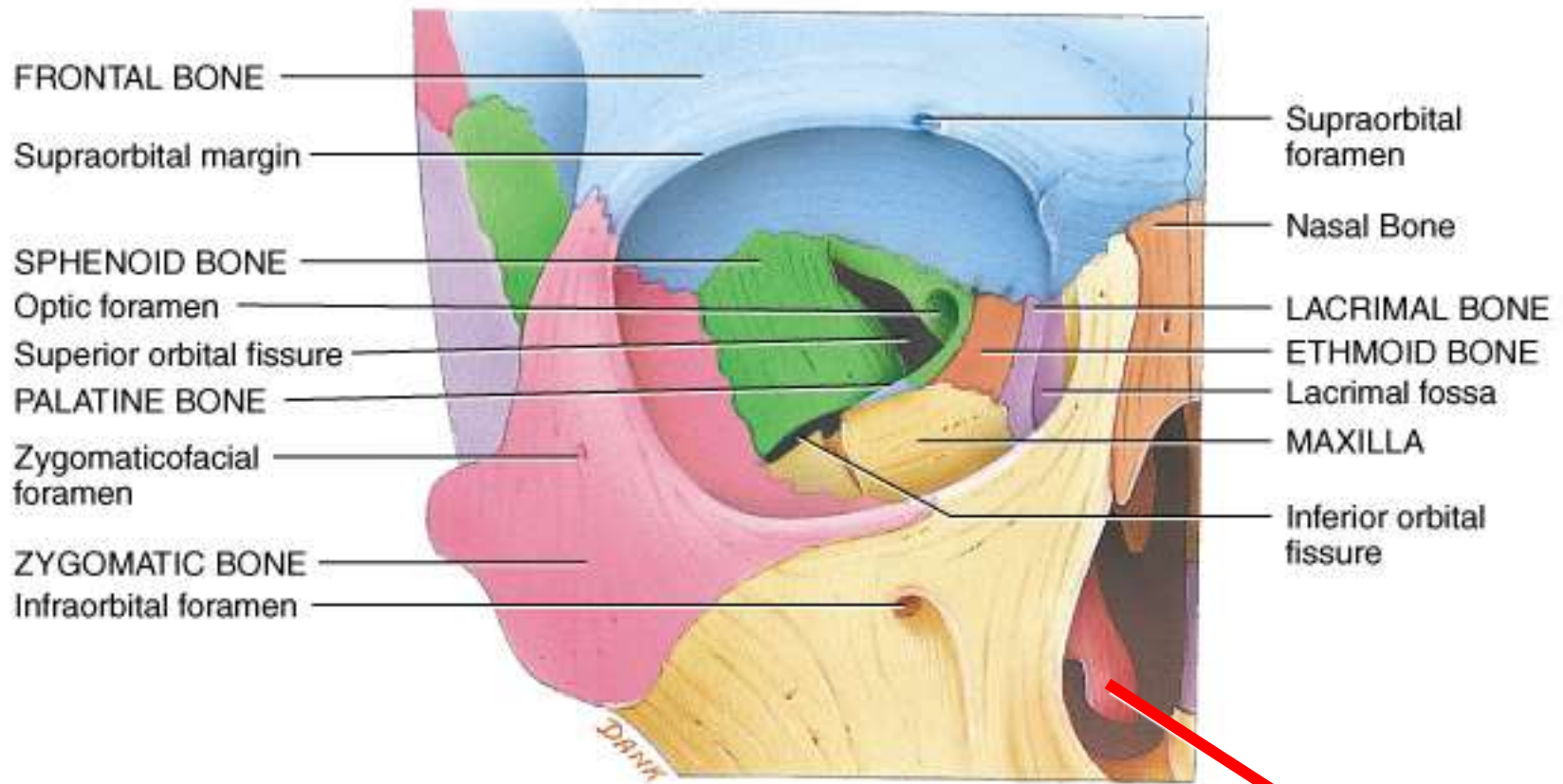
Figure 7.9

Ossa dello splancnocranio

- Ossa lacrimali
 - Parte mediale delle cavità orbitarie
 - Fossa lacrimale con sacco lacrimale, attraverso il condotto nasolacrimale le lacrime arrivano alla cavità nasale



Ossa dello splancnocranio



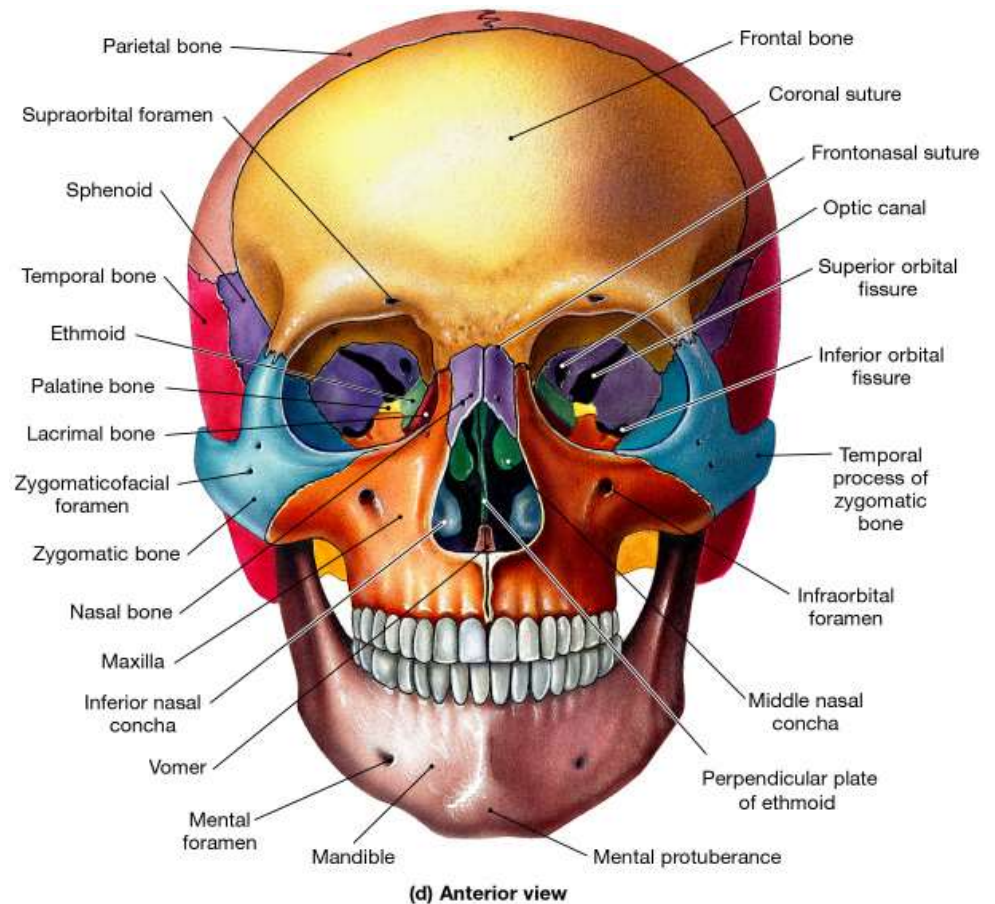
Conca nasale inferiore

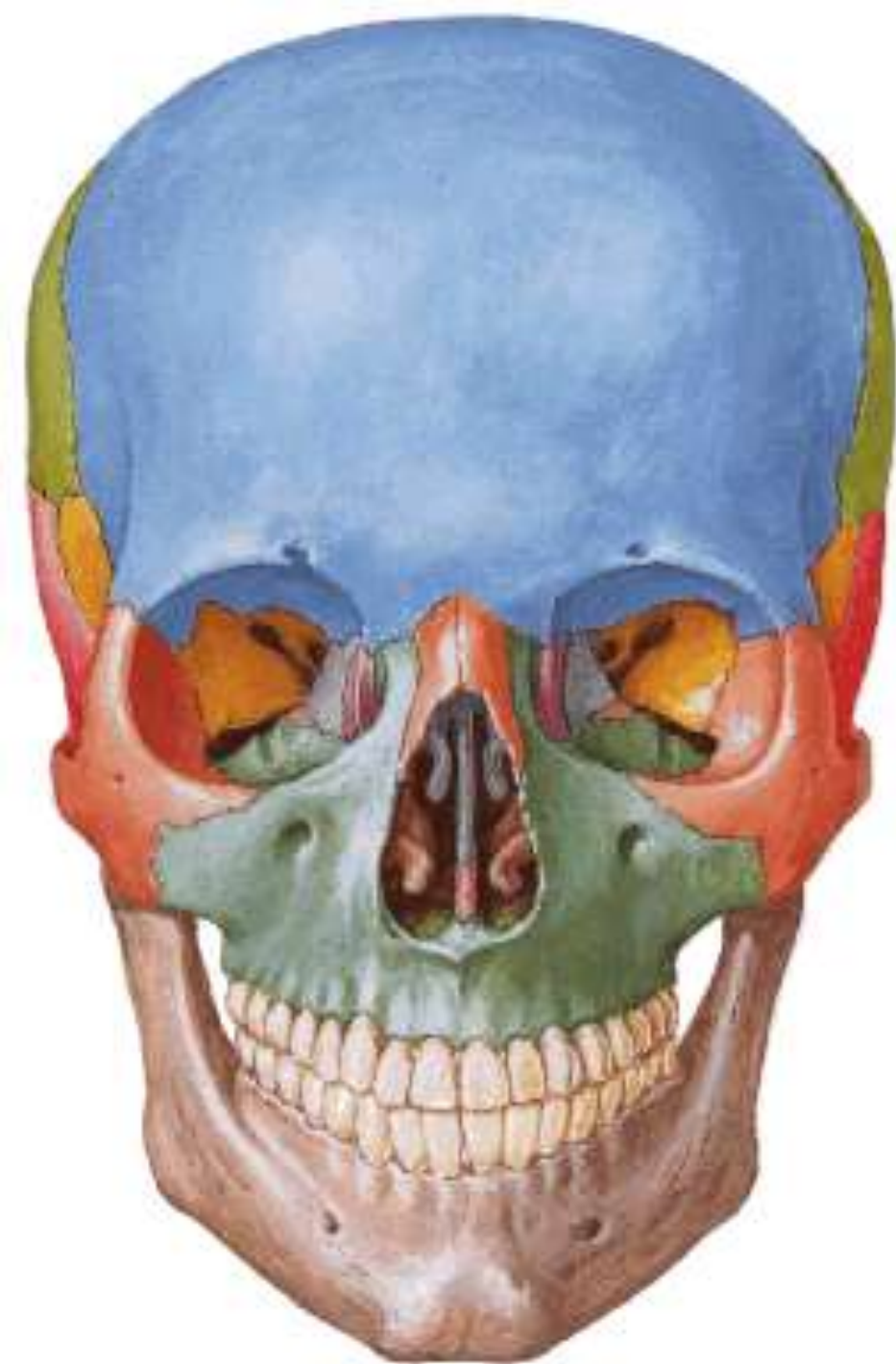
- Conca nasale inferiore o turbinato
- Gli altri 2 turbinati fanno parte dell'etmoide, questo è un osso indipendente

Ossa dello splancnocranio

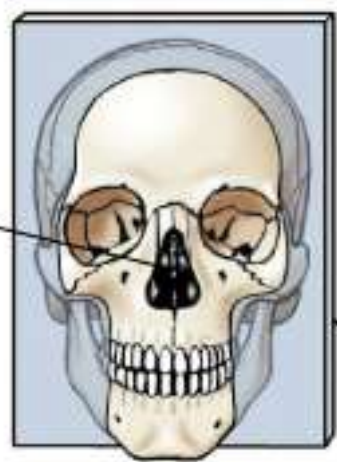
- **Vomere**

- Forma la parte inferiore del setto nasale
- Si articola con mascellare, palatini e sfenoide





Nasal
septum



Frontal bone

Zygomatic
bone

Superior
nasal
concha

Middle
nasal
concha

Maxilla

Inferior
nasal
concha

CRANIAL
CAVITY

Crista galli

Ethmoidal
cells

Perpendicular
plate

ORBIT

Vomer

Left
nasal
cavity

Mandible

Maxillary
sinus

Ethm

(d) Frontal section