



The Mandible and Norma Basalis

DR. AHMED SALMAN

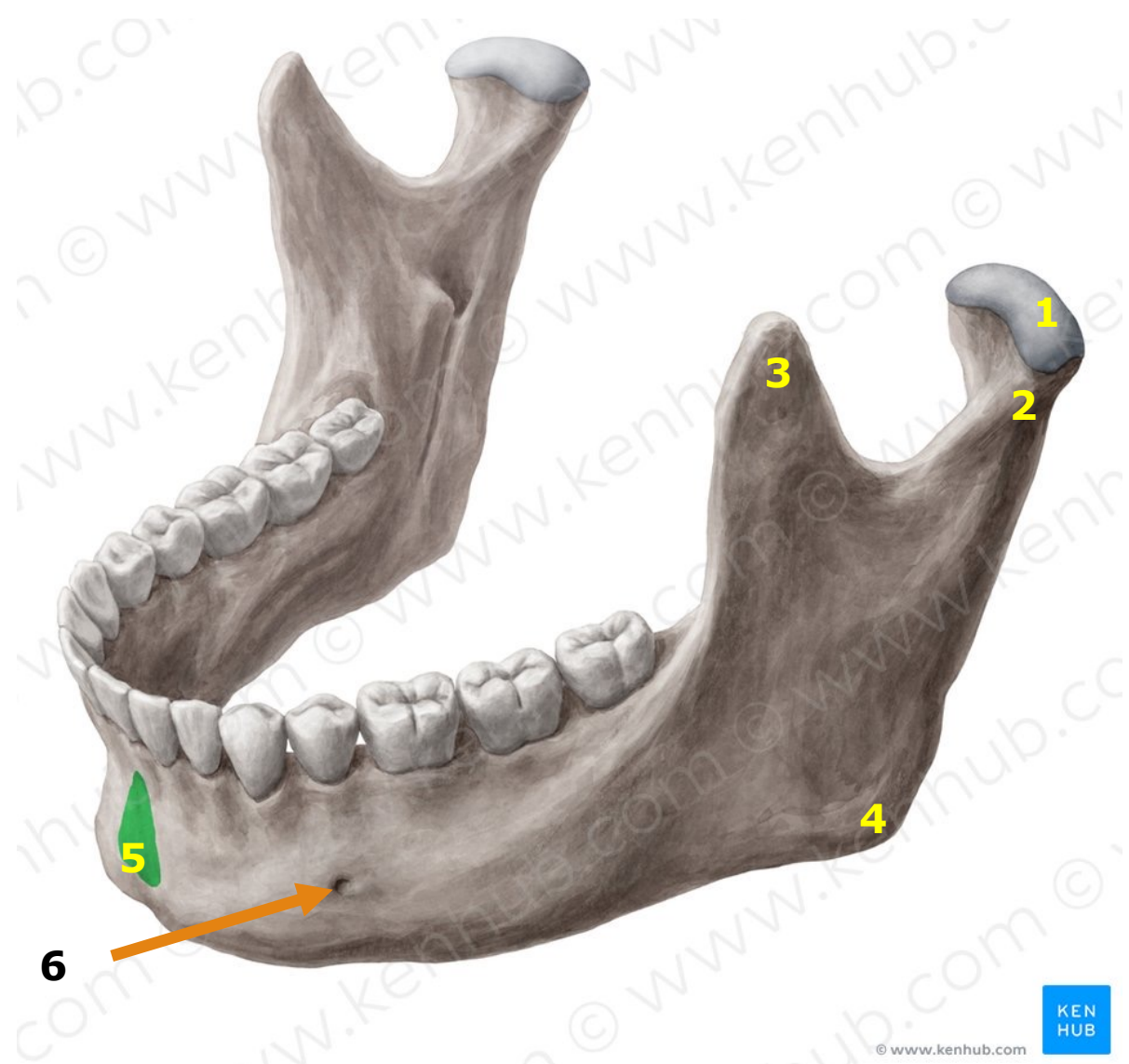
Associate professor of anatomy & embryology

The Mandible

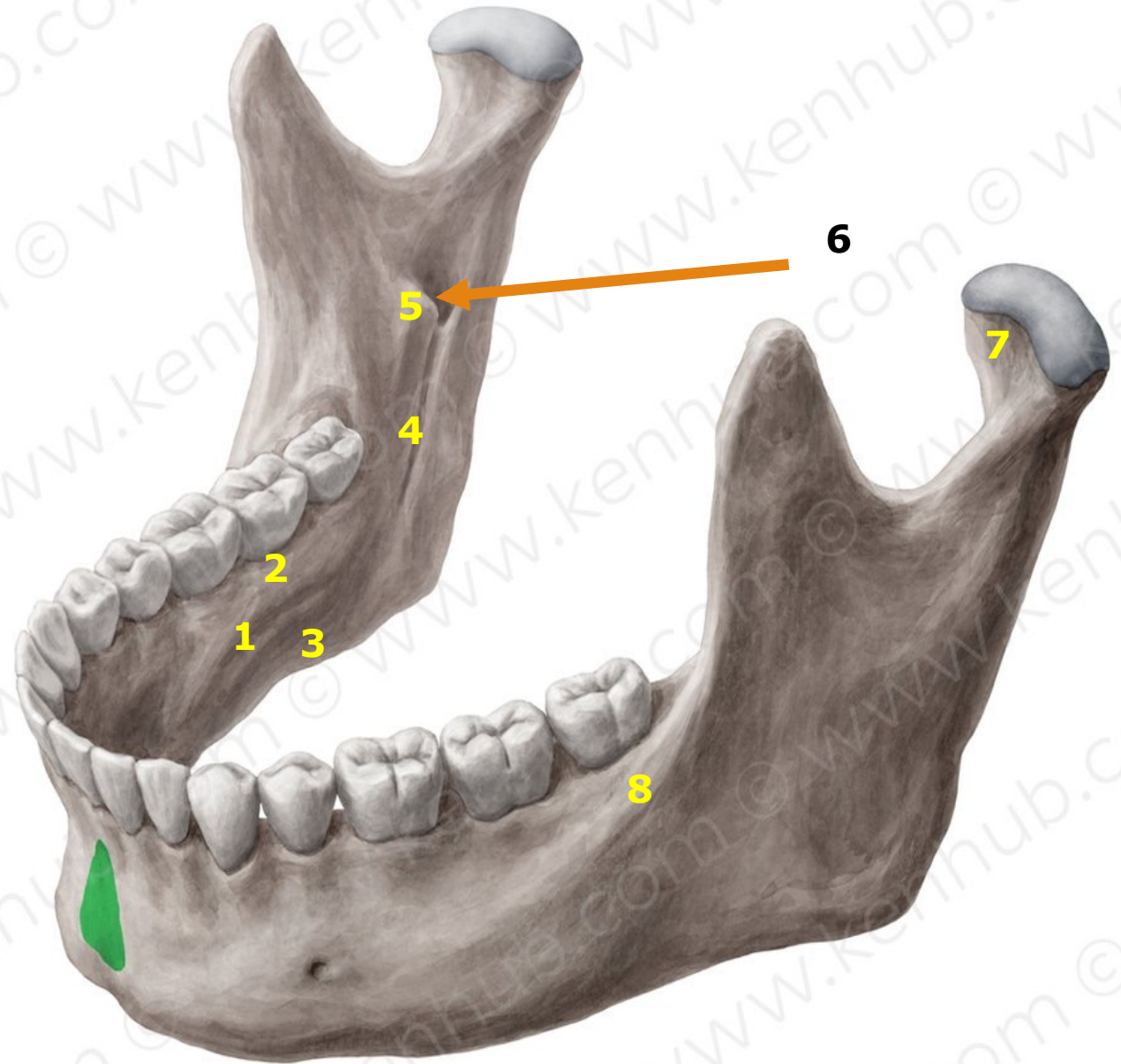


The mandible is composed of ramus and body

1. Head
2. Neck (Head and neck compose condylar process)
3. Coronoid process
4. Angle
5. Mental protuberance
6. Mental foramen



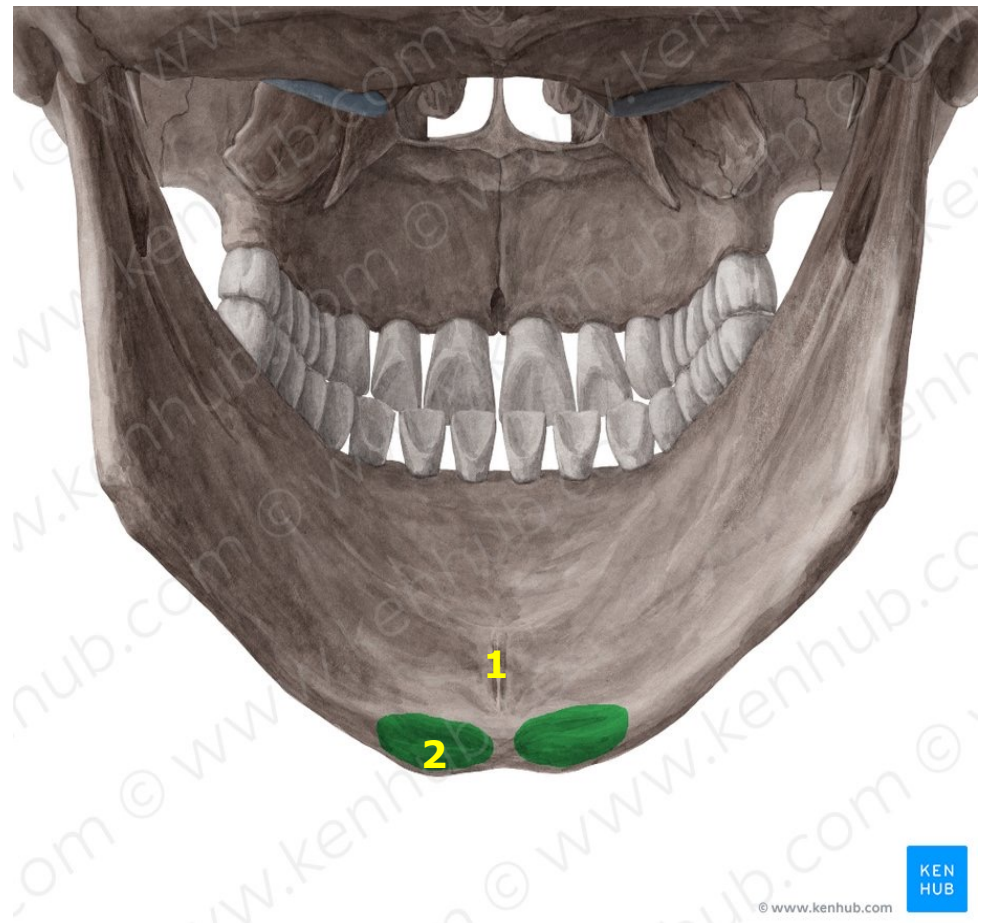
1. Mylohyoid line
2. Sublingual fossa
3. Submandibular fossa
4. Mylohyoid groove
5. Lingula
6. Mandibular foramen
7. Pterygoid fossa
8. Oblique line



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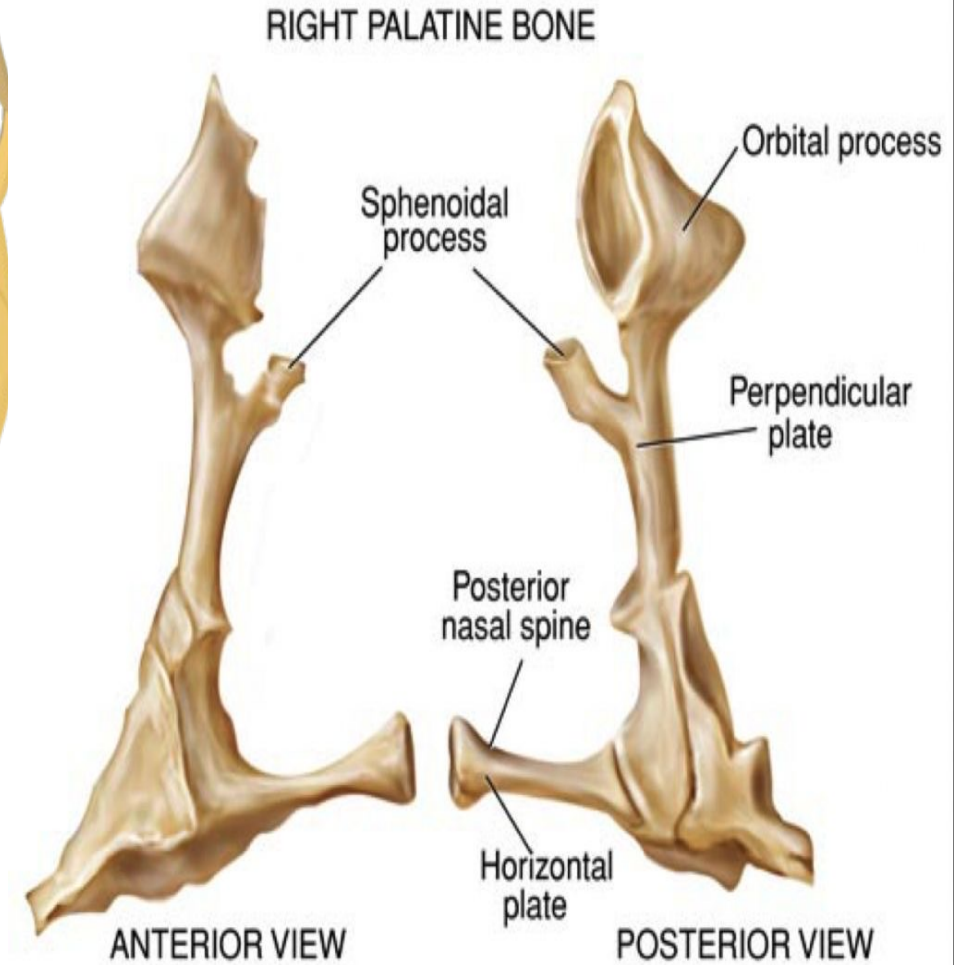
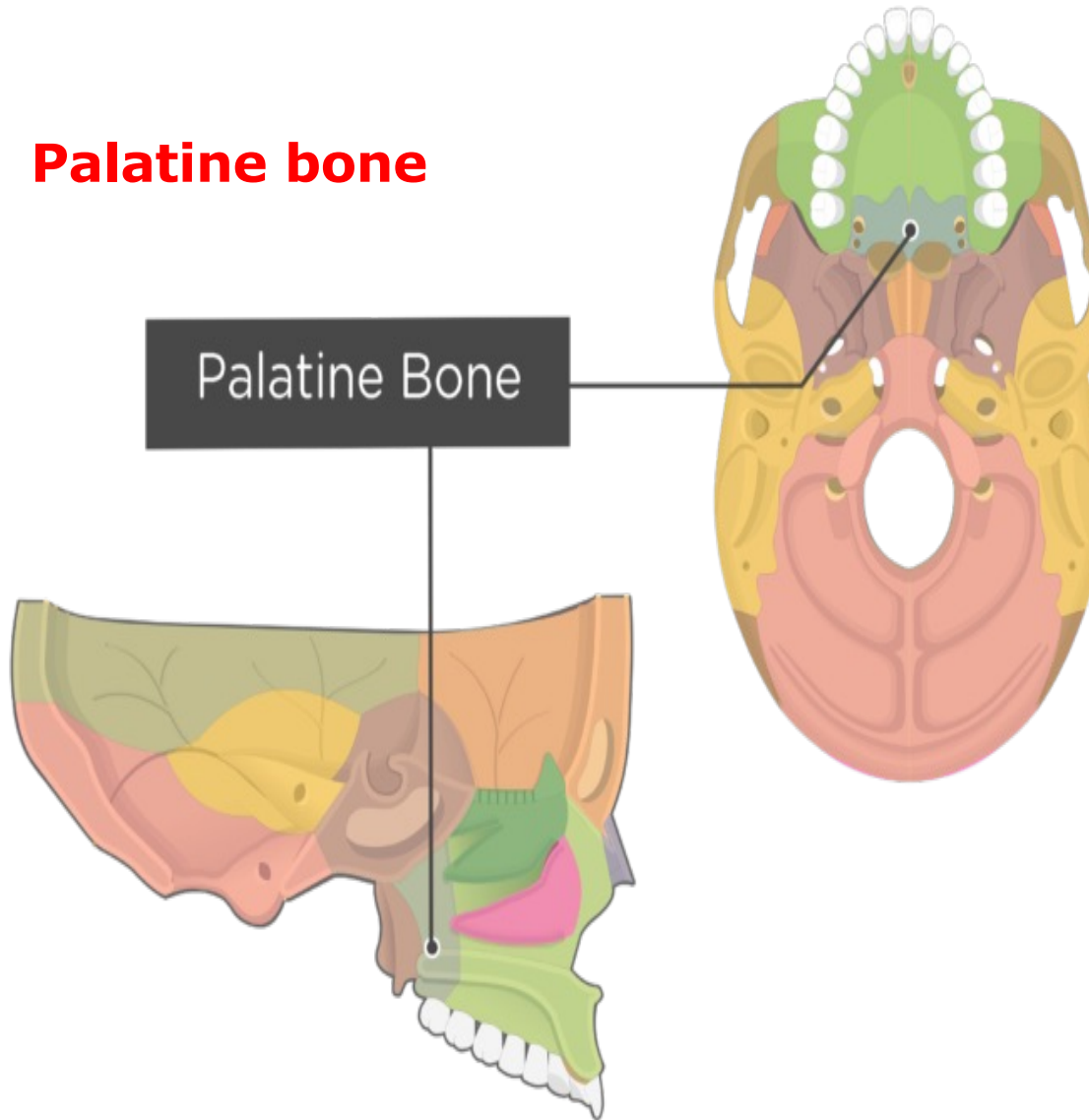
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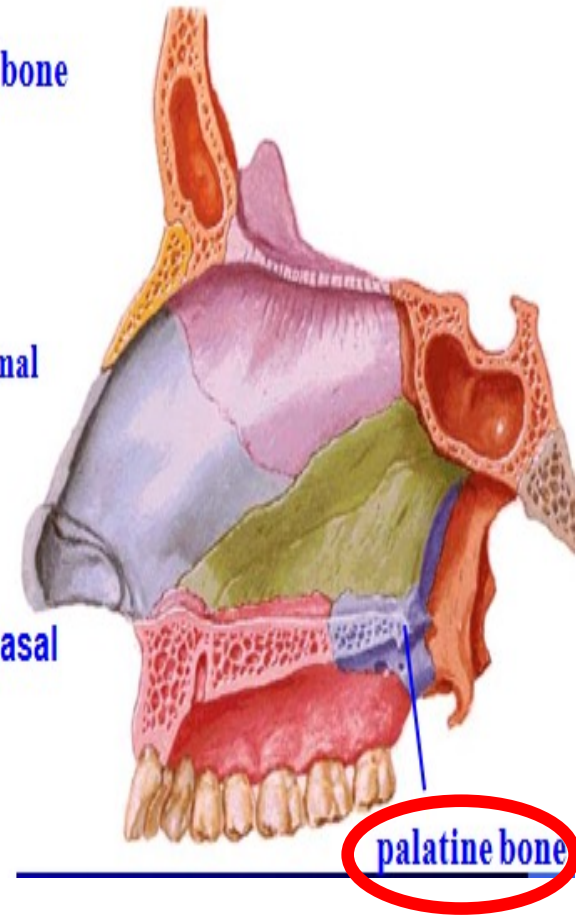
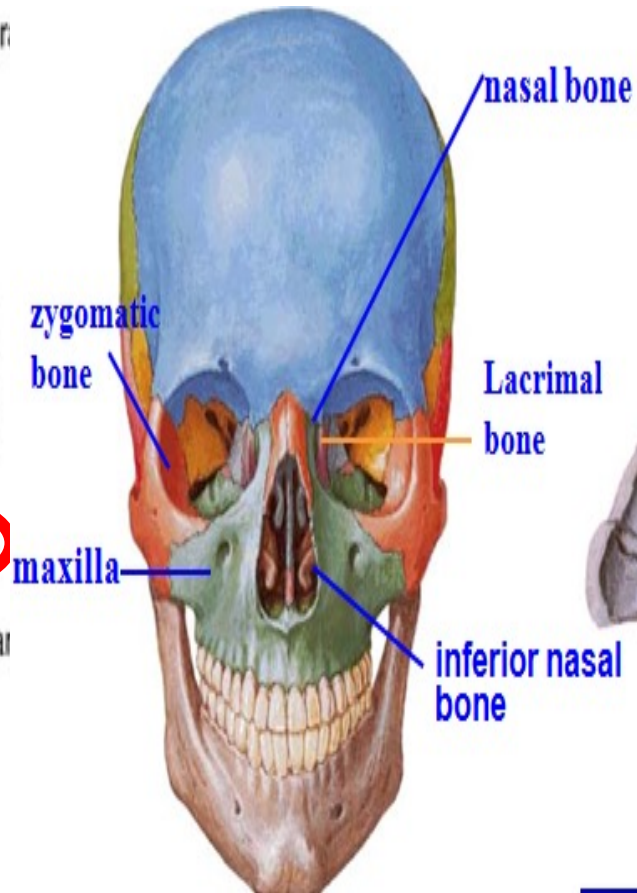
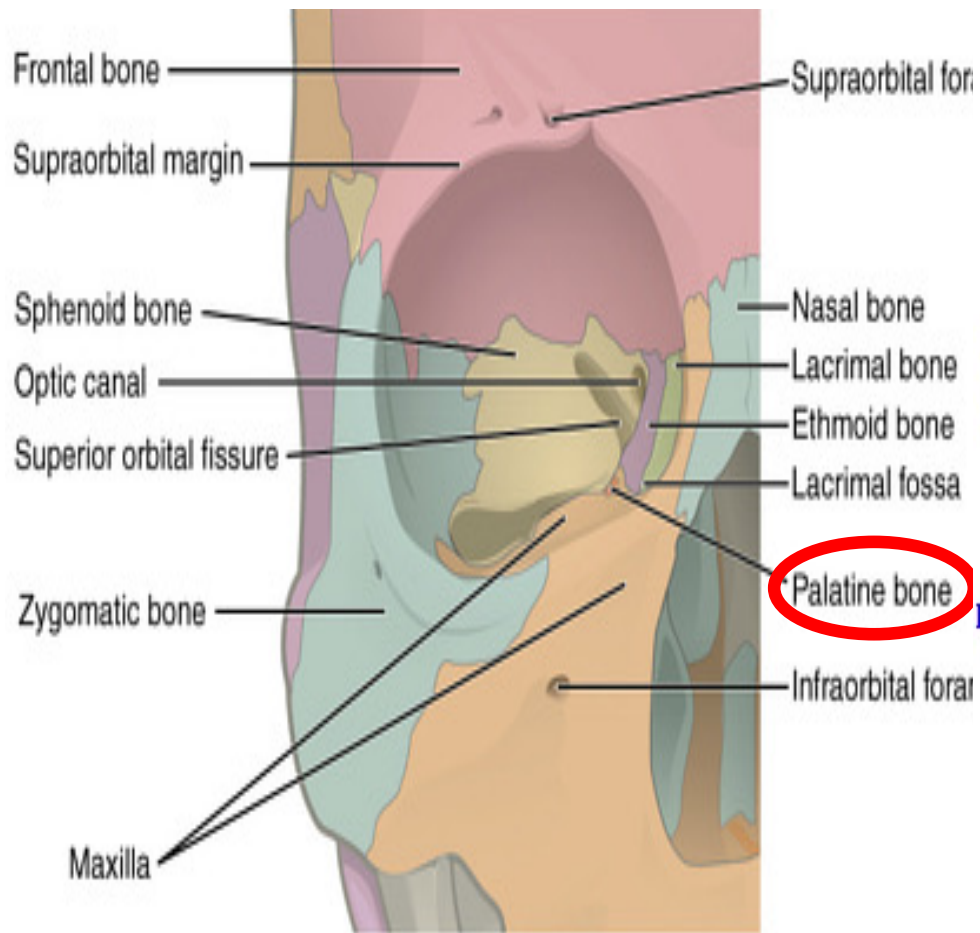
1. Superior and inferior genial tubercles
2. Digastric fossa



Norma Basalis Externa

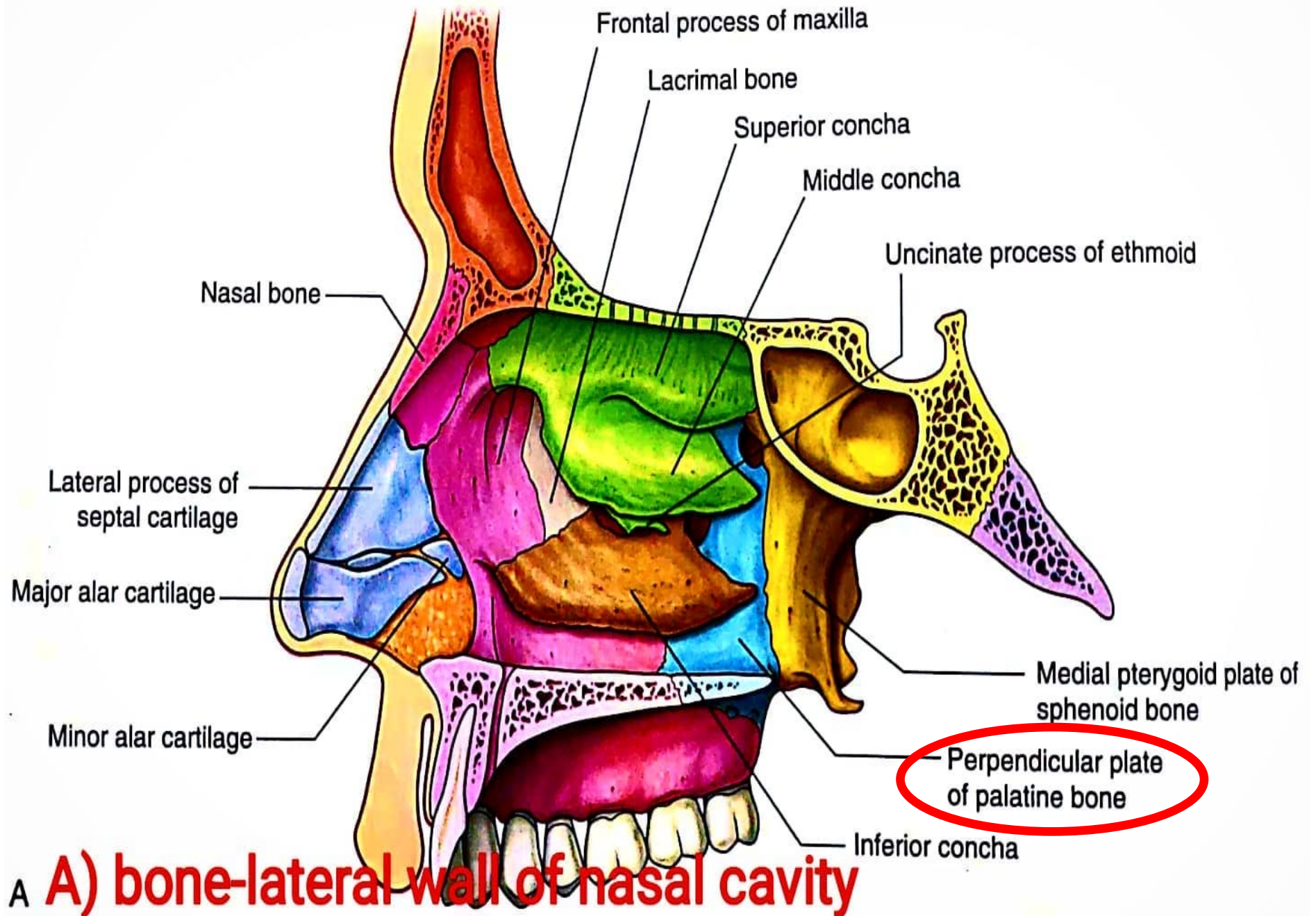
Palatine bone



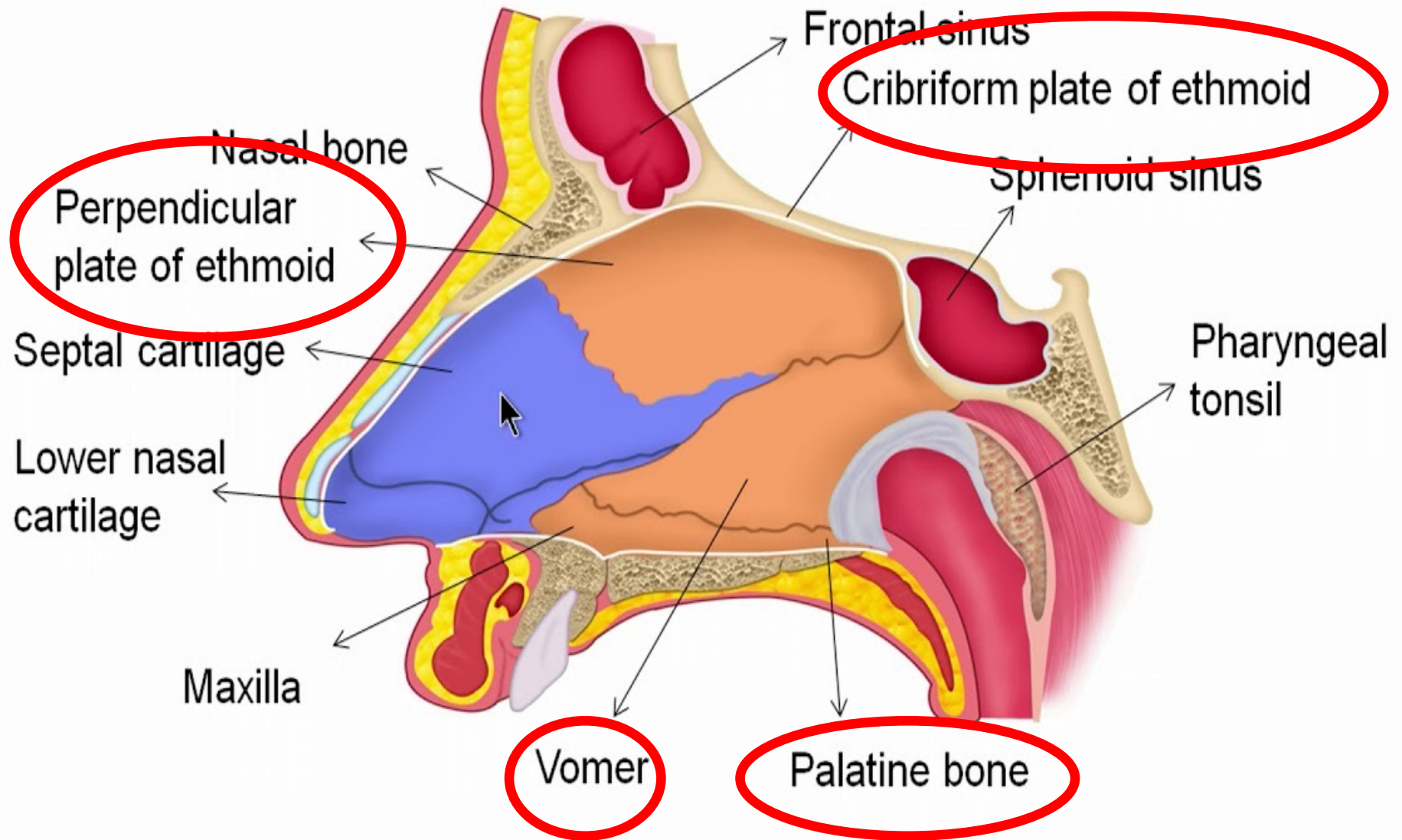


<https://sketchfab.com/3d-models/palatine-bone-49d6576db33f4f56b9b365e0aa8aed5a>

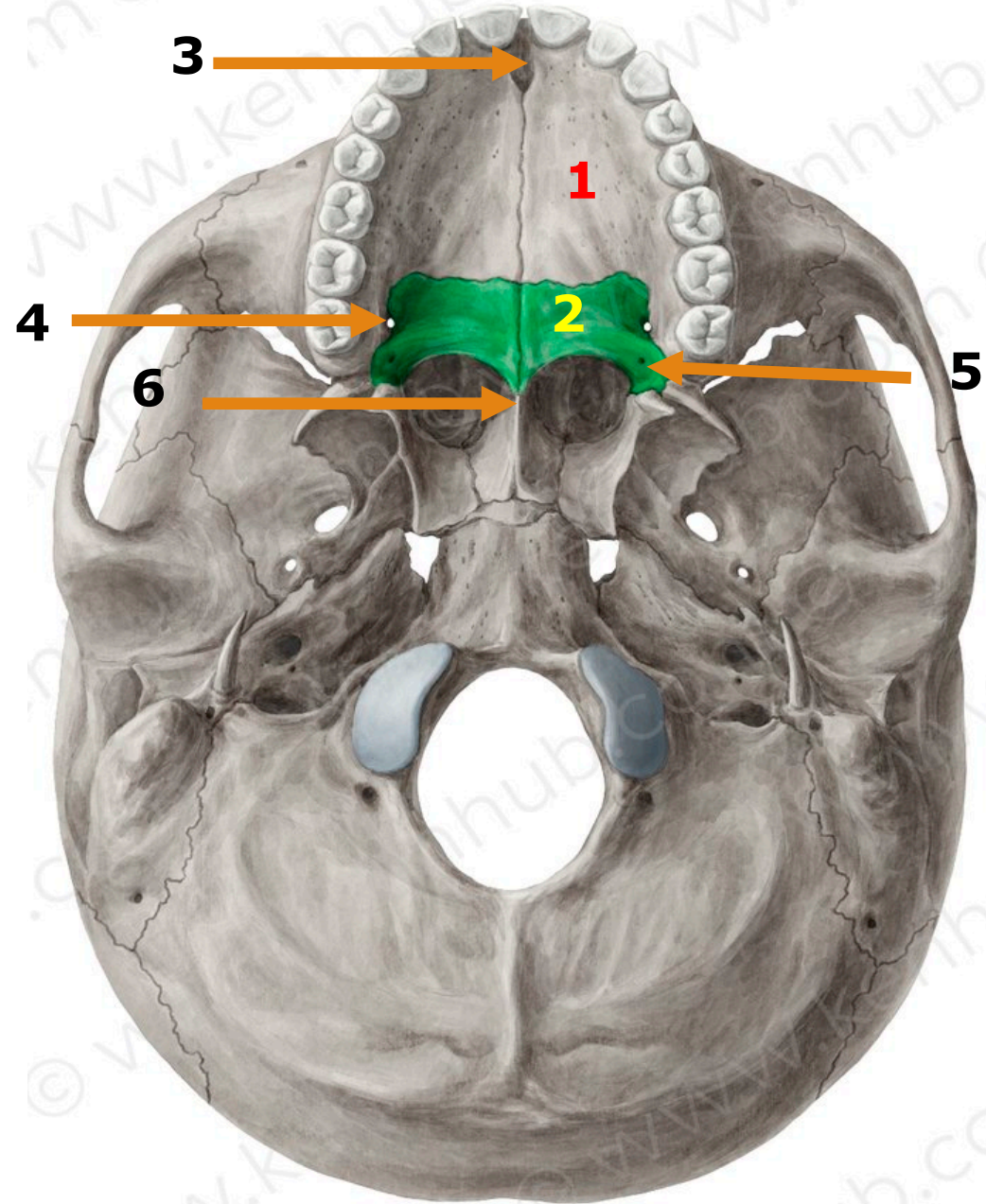




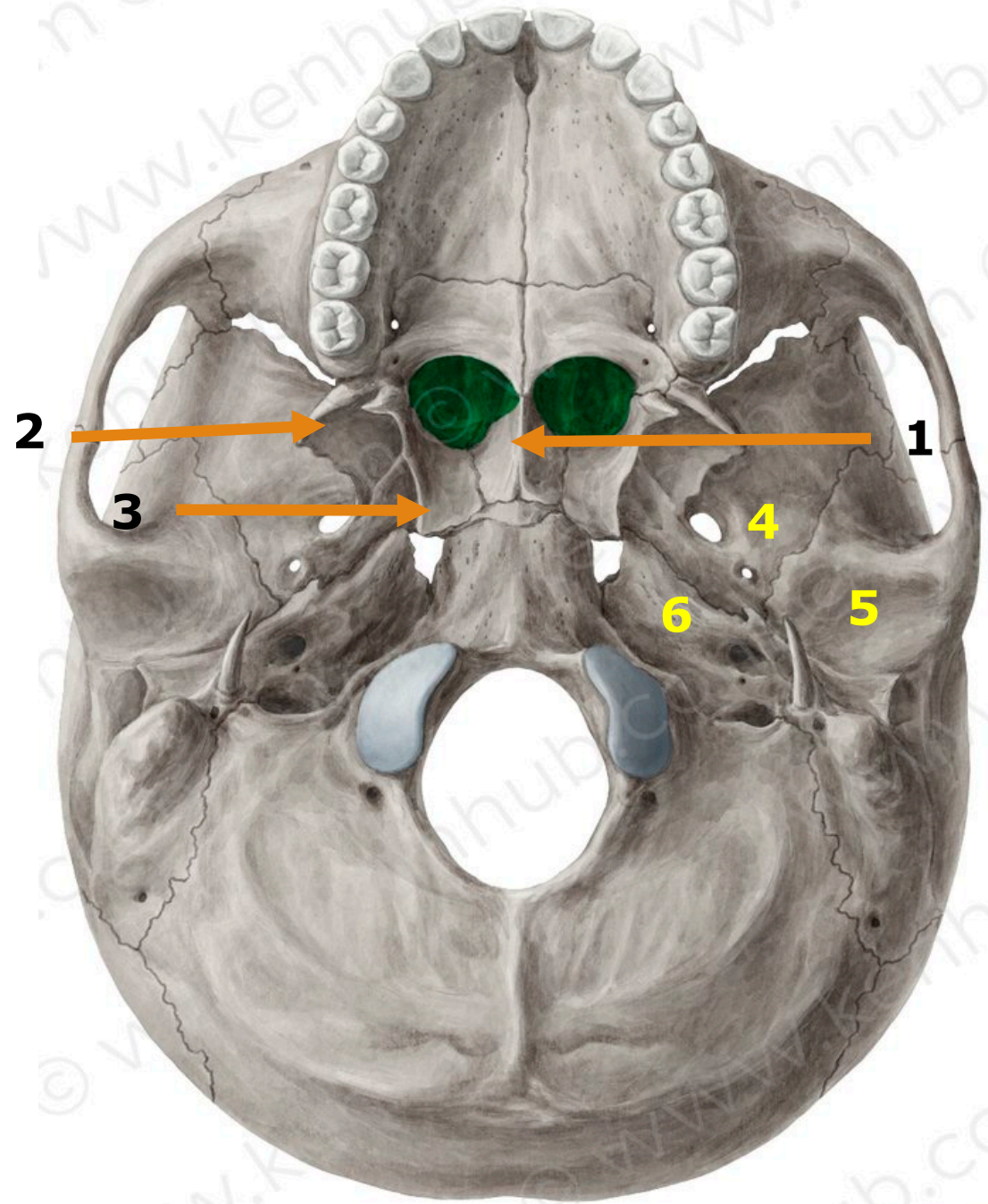
Nasal septum (composition)



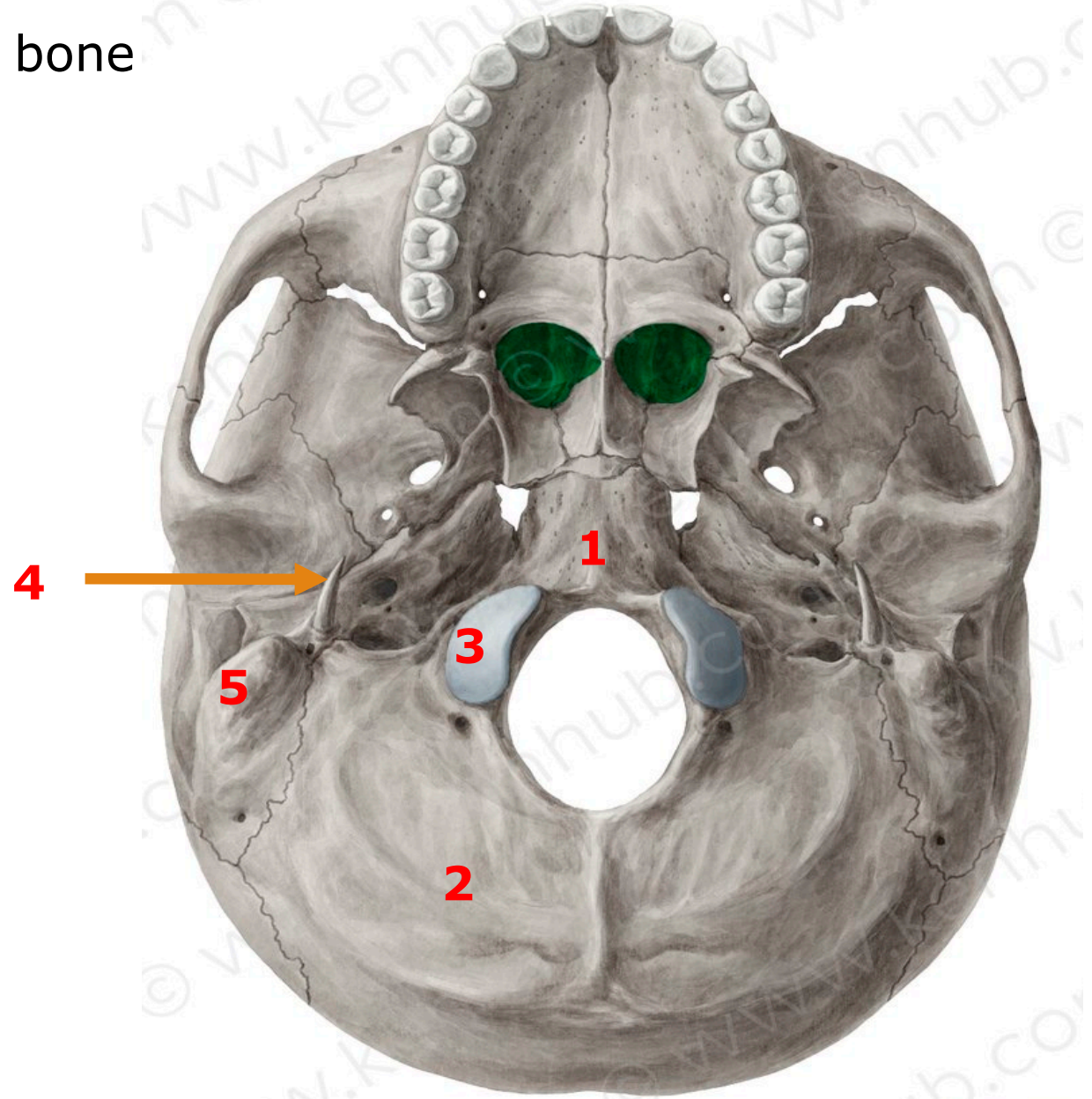
1. Palatine processes of maxilla
2. Horizontal plates of the palatine bones
3. Incisive fossa
4. Greater palatine foramina
5. Lesser palatine foramina
6. Posterior nasal spine



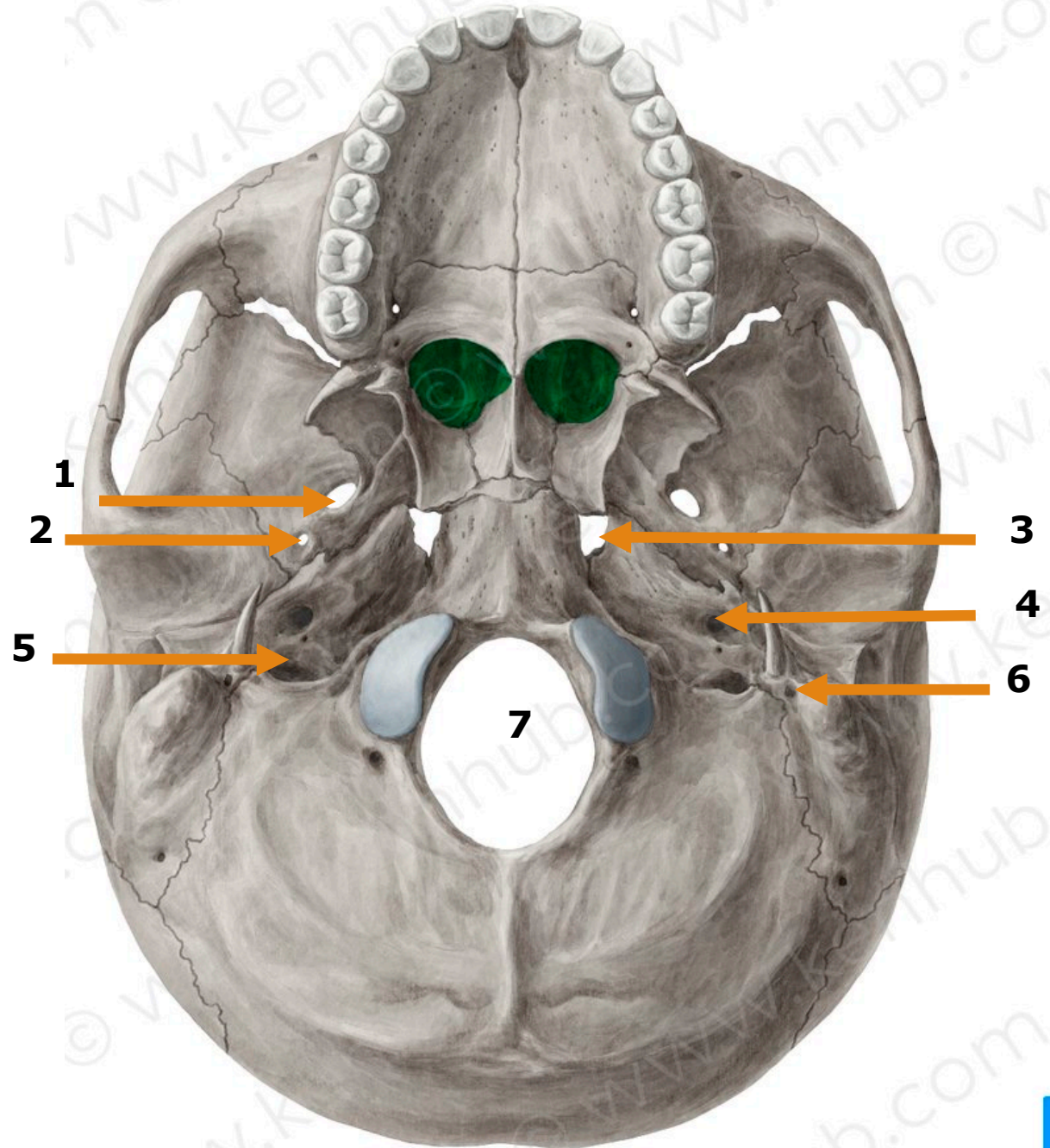
1. Vomer
2. Lateral pterygoid plate
3. Medial pterygoid plate
4. Infratemporal surface of the greater wing of sphenoid
5. Mandibular fossa
6. Petrous part of the temporal bone



1. Basilar part of occipital bone
2. Squamous part of occipital bone
3. Occipital condyle
4. Styloid process
5. Mastoid process

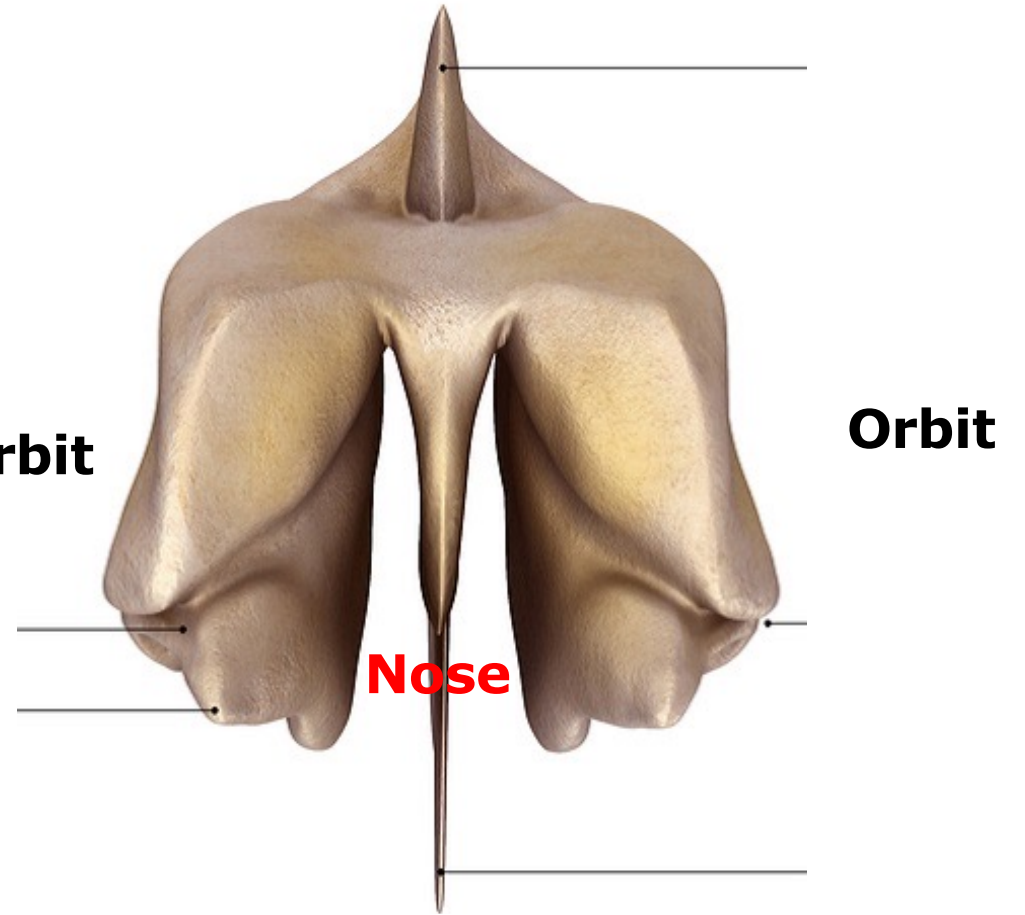
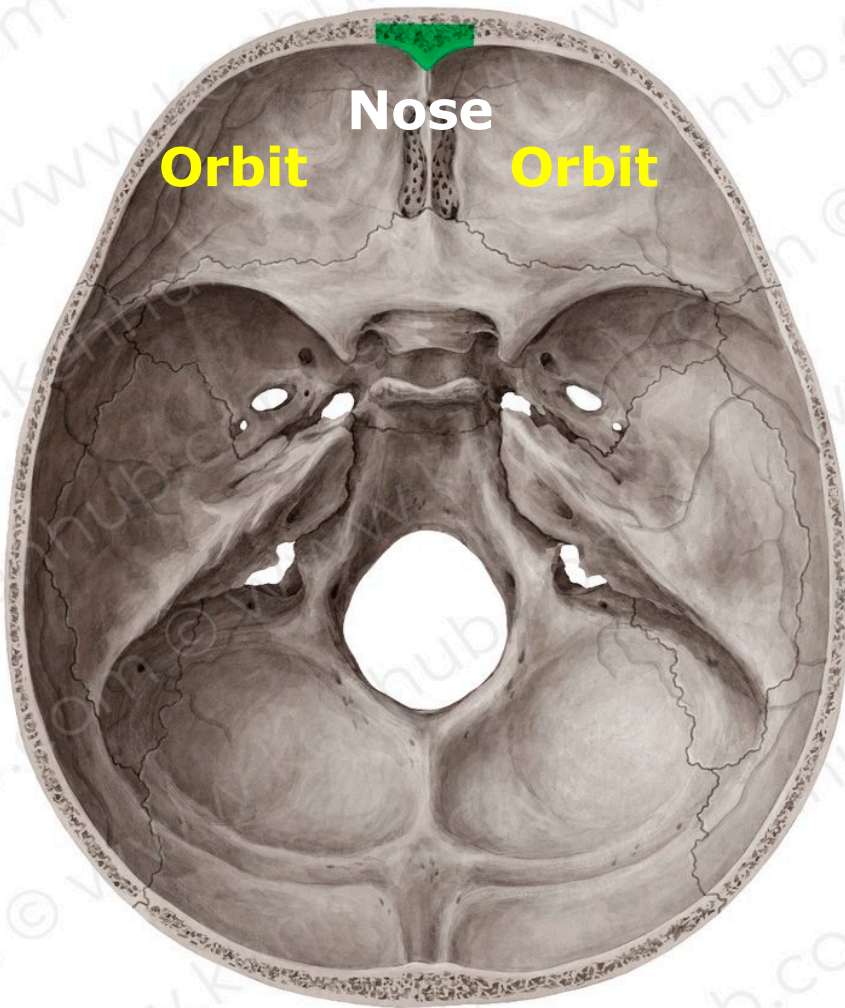


1. Foramen ovale
2. Foramen spinosum
3. Foramen lacerum
4. Carotid canal
5. Jugular Foramen
6. Stylomastoid foramen
7. Foramen magnum



Norma Basalis Interna

Ethmoid bone



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Crista galli

Sphenoid bone

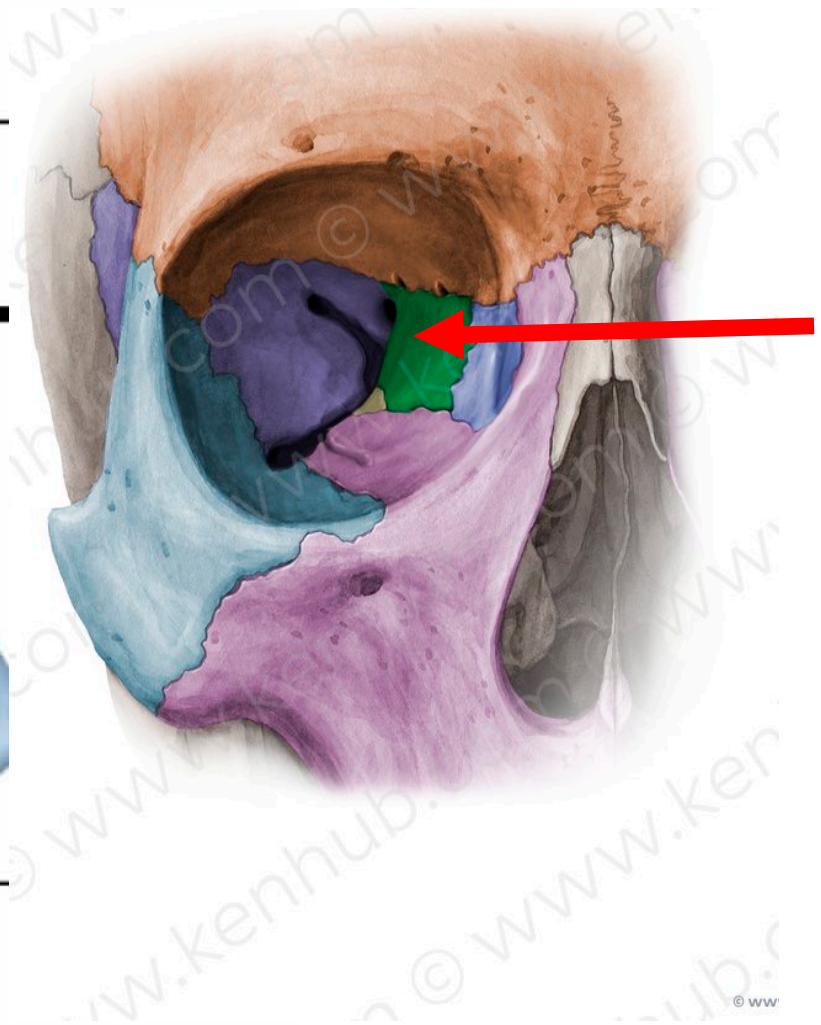
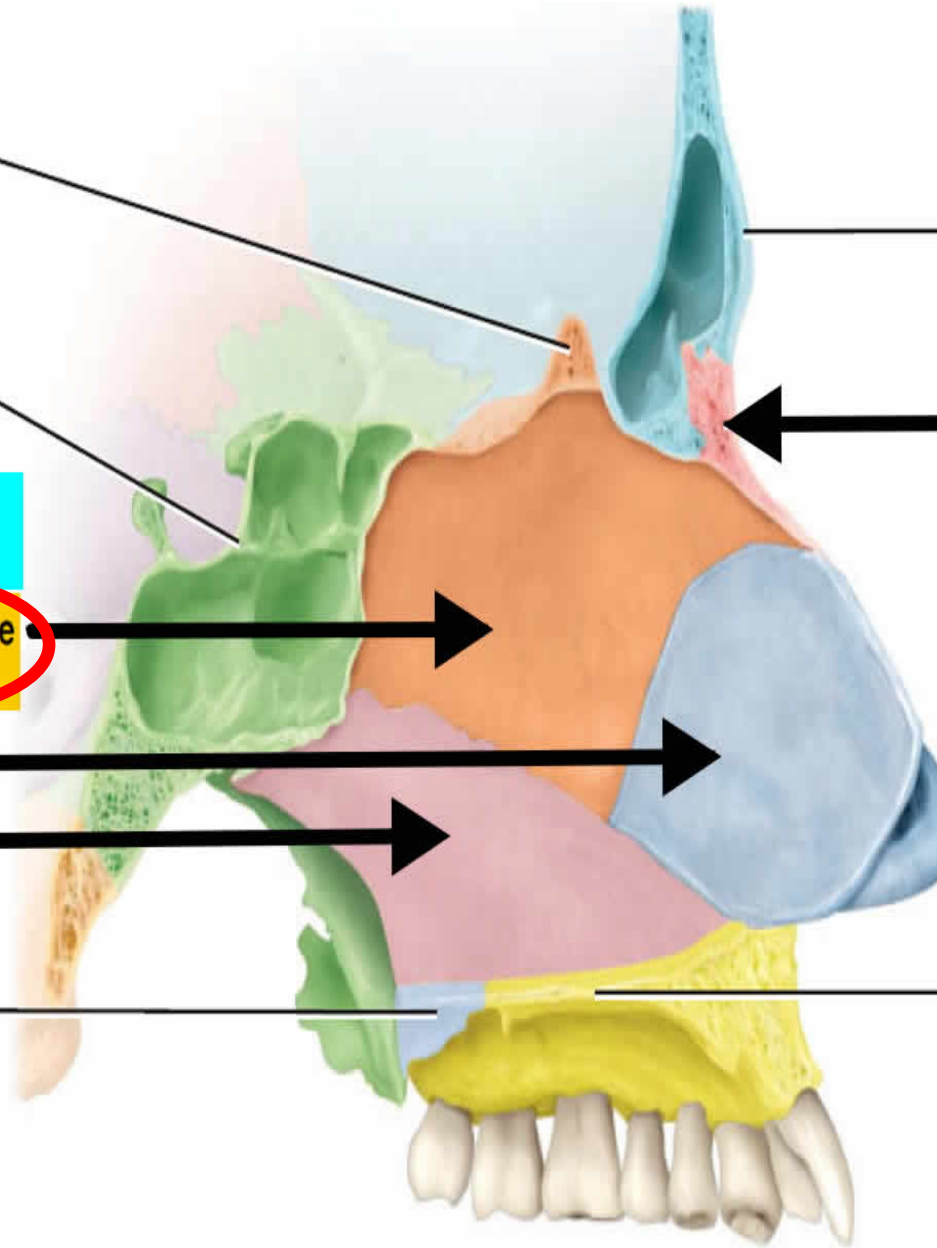
NASAL SEPTUM:

Perpendicular plate of ethmoid bone

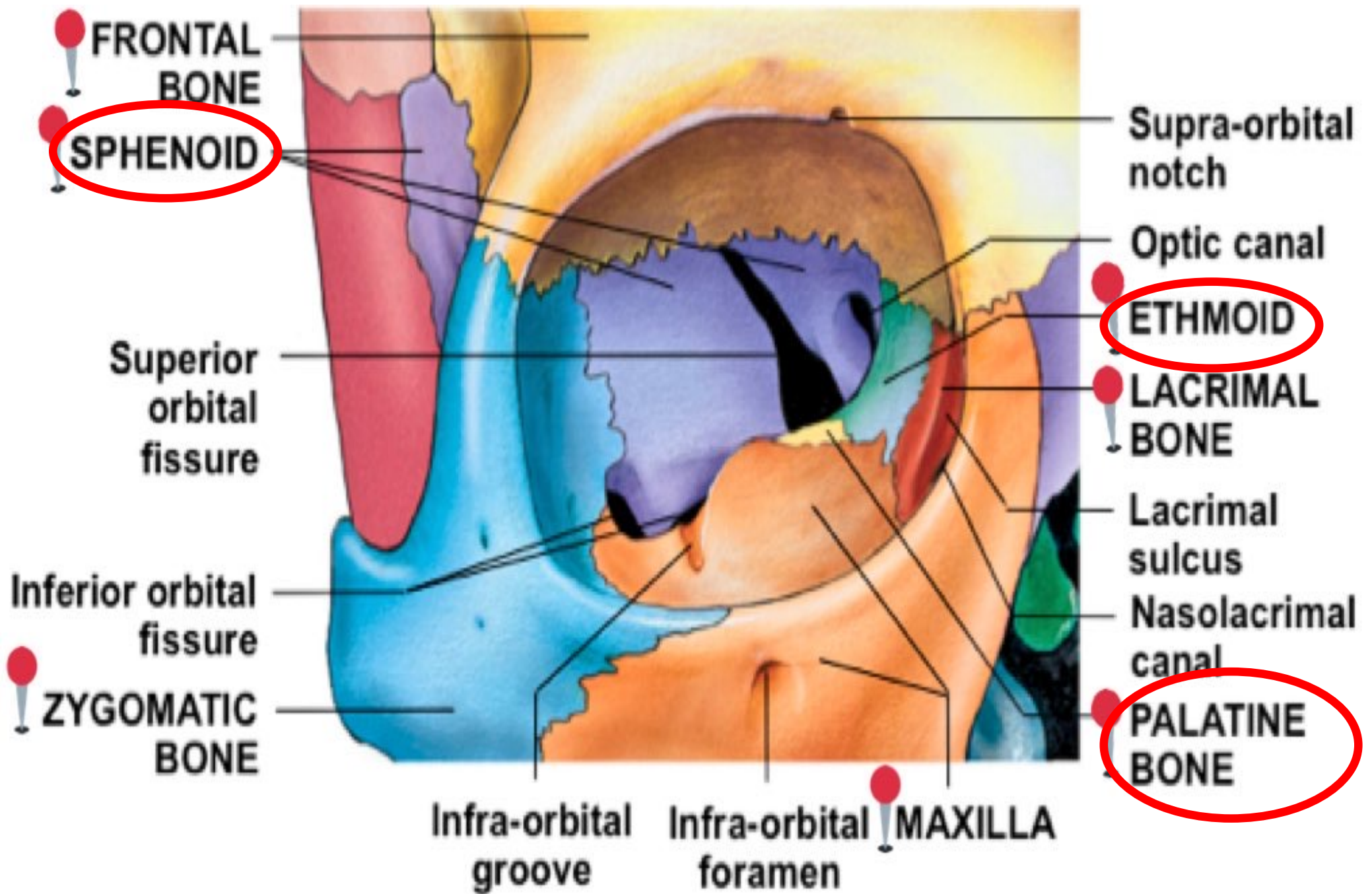
Septal cartilage

Vomer

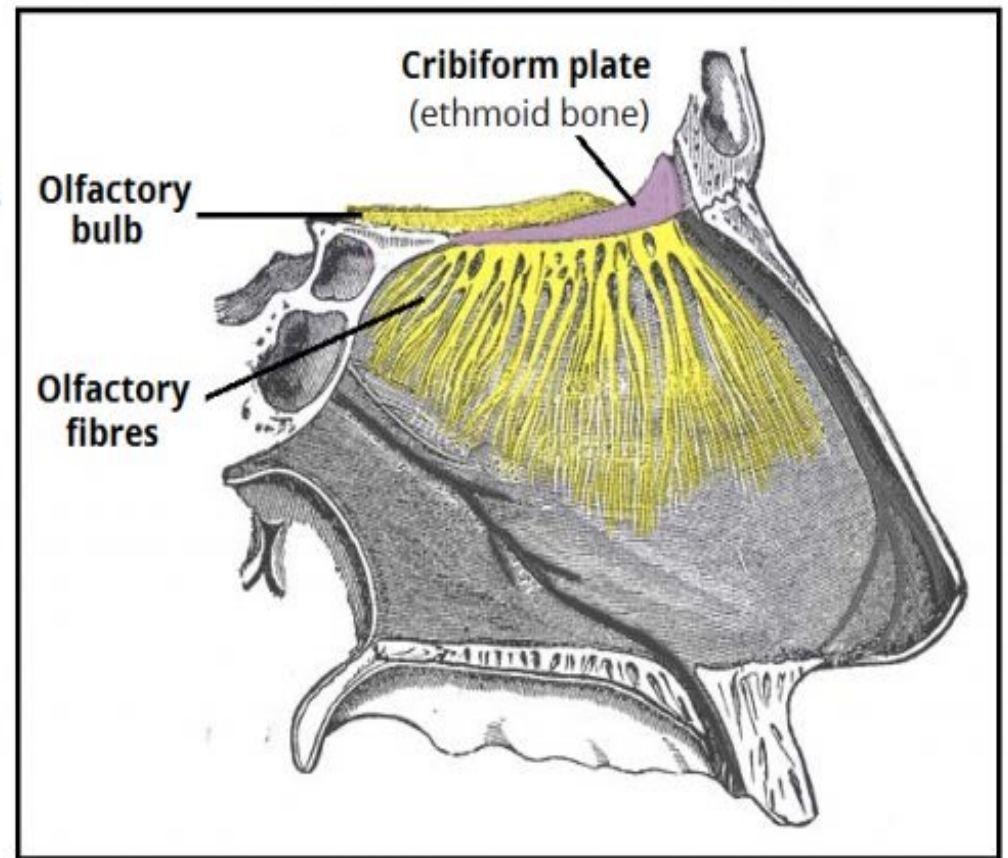
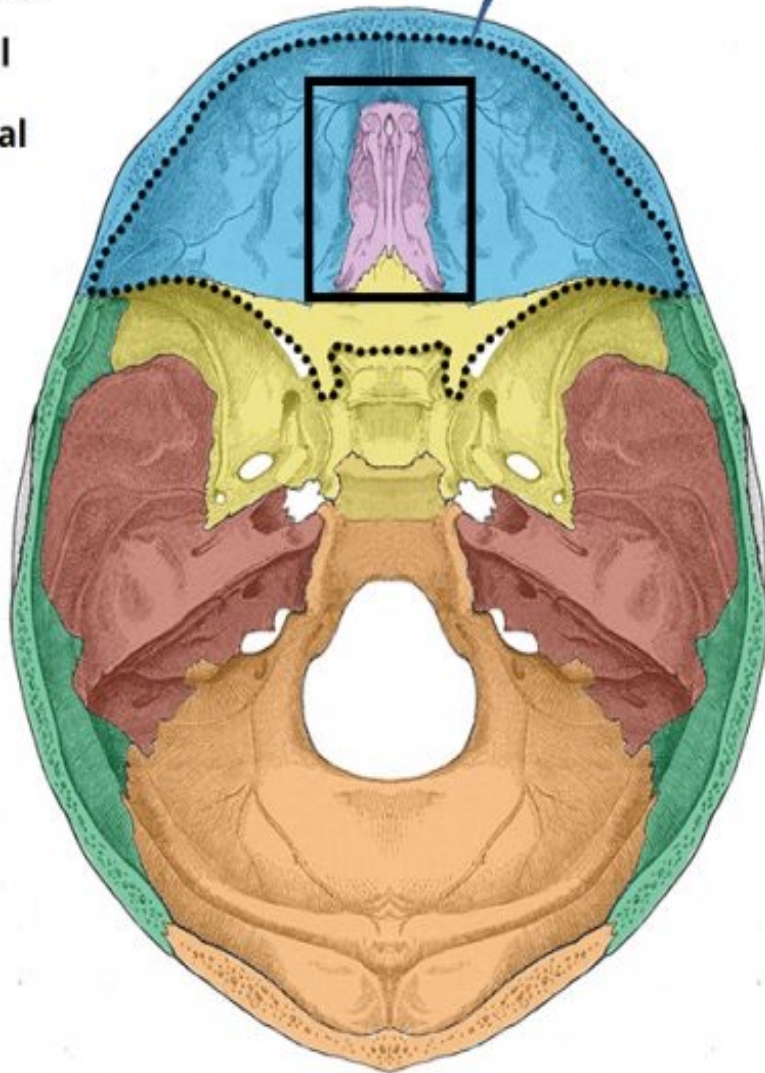
Horizontal plate of palatine bone



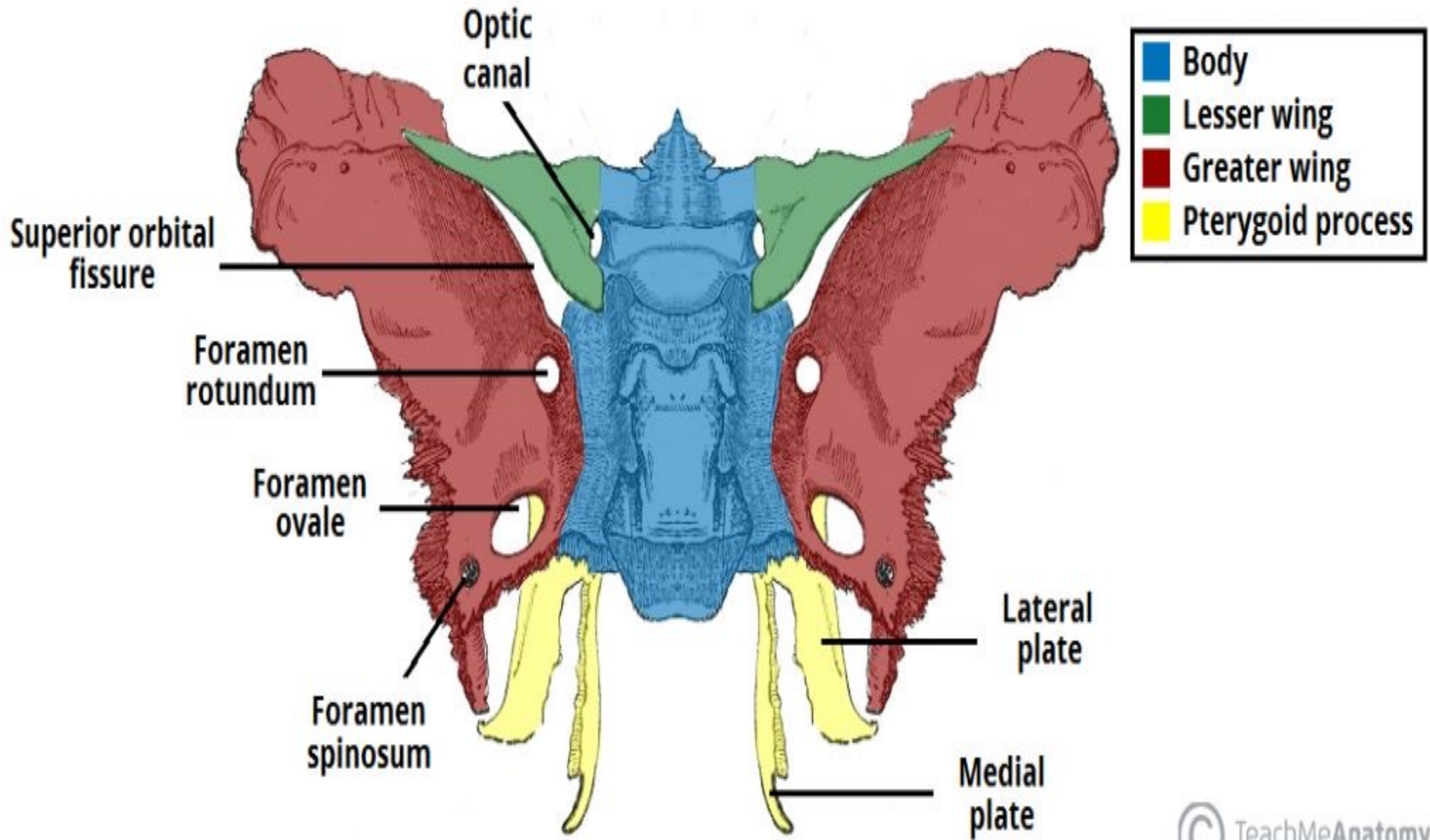
Sagittal section

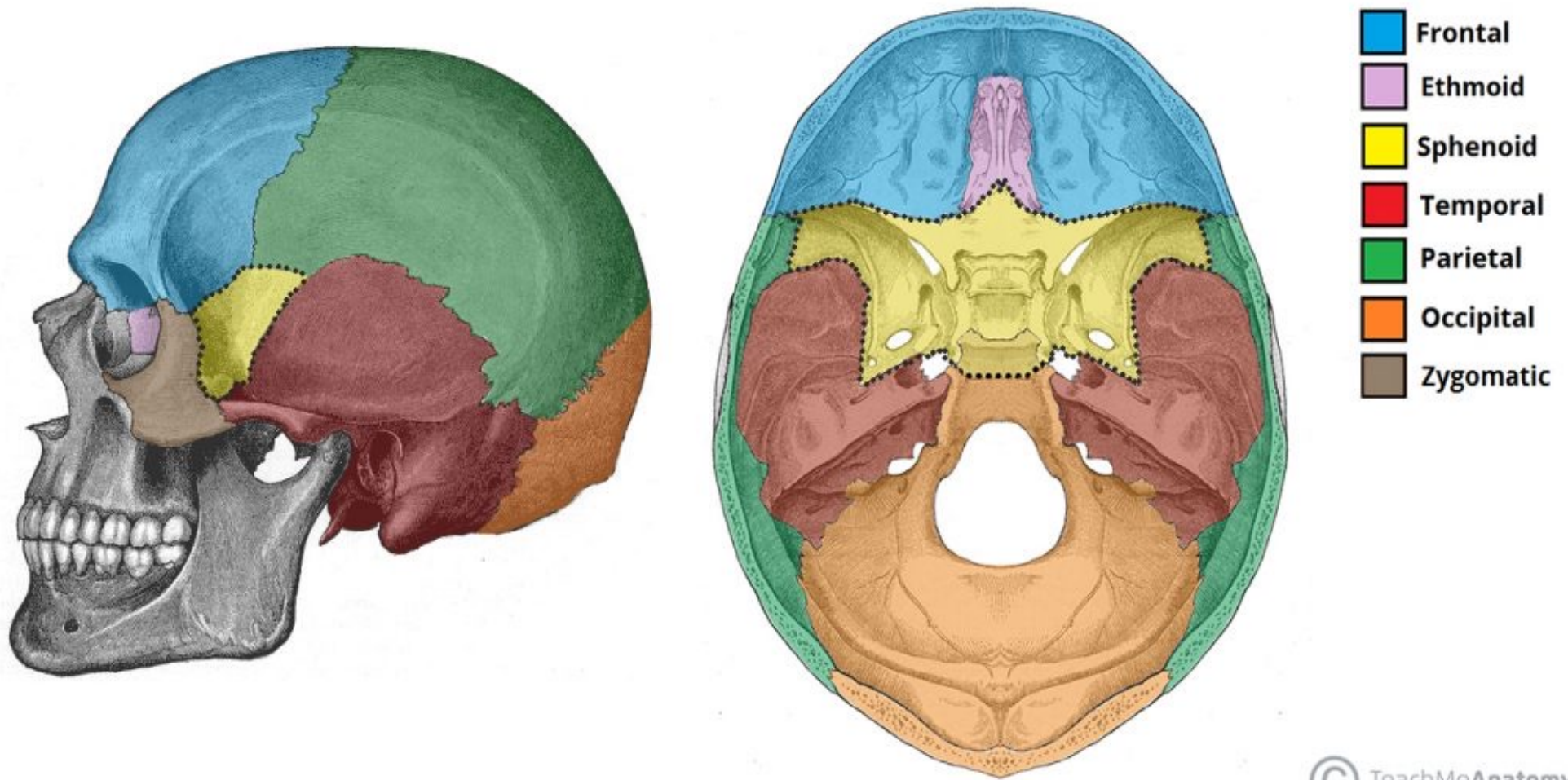


- Frontal
- Ethmoid
- Sphenoid
- Temporal
- Parietal
- Occipital

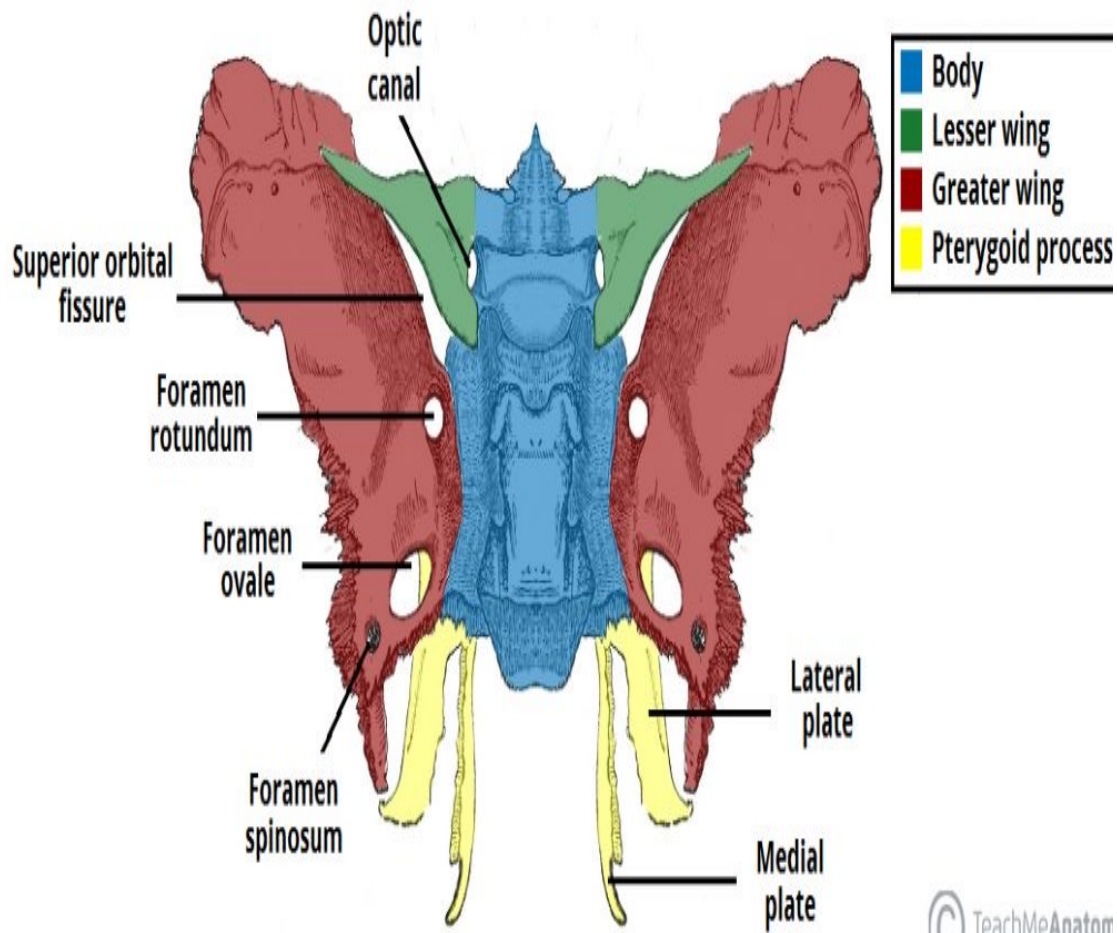


Sphenoid bone

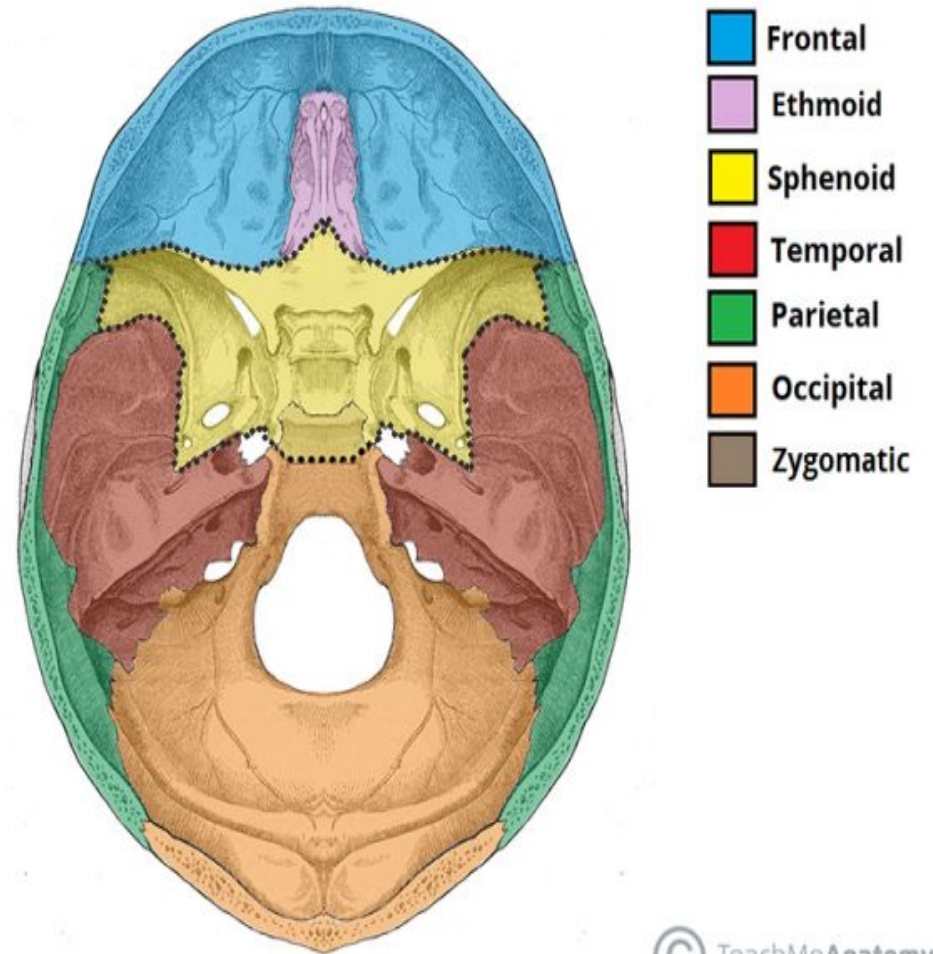




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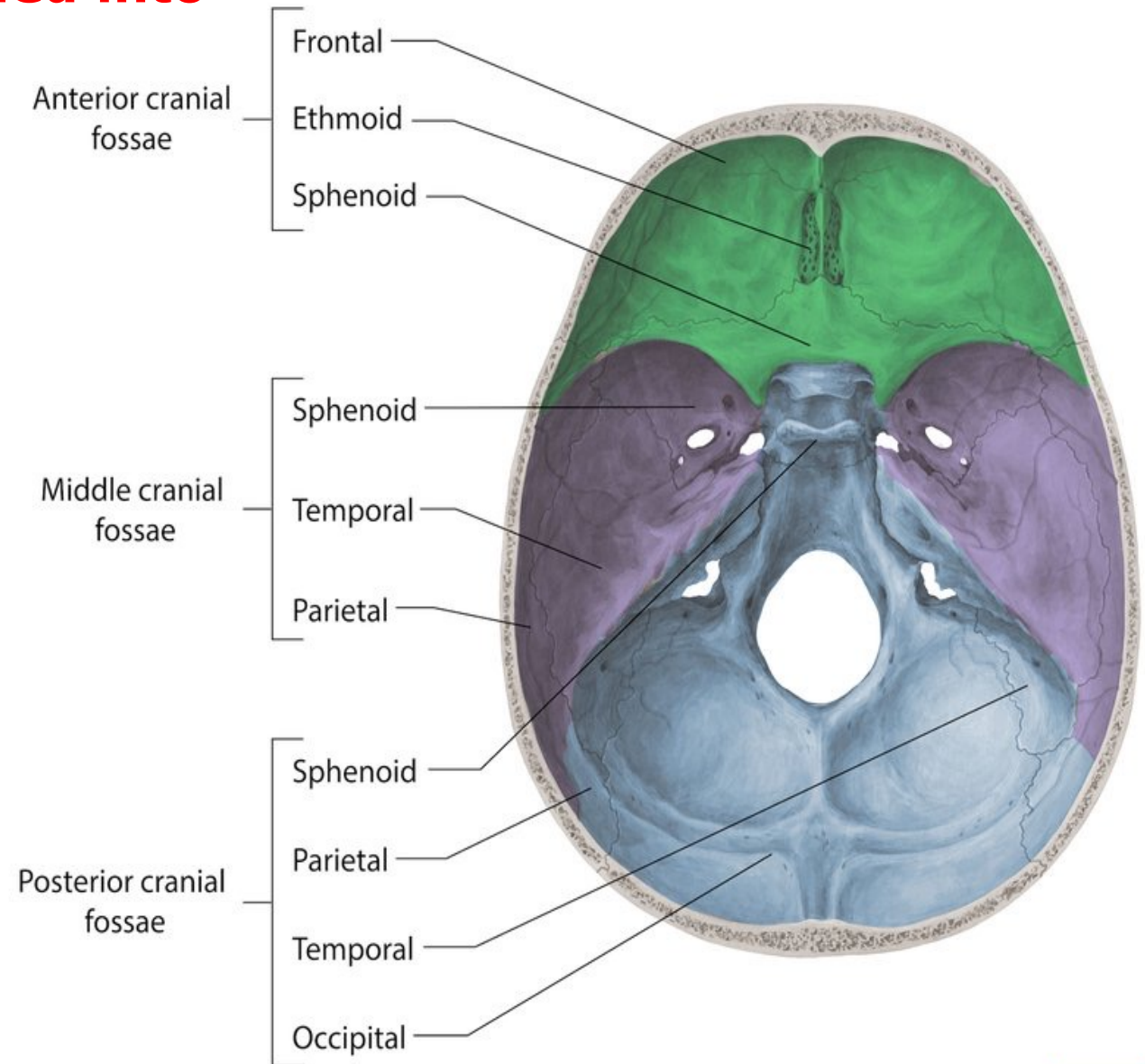
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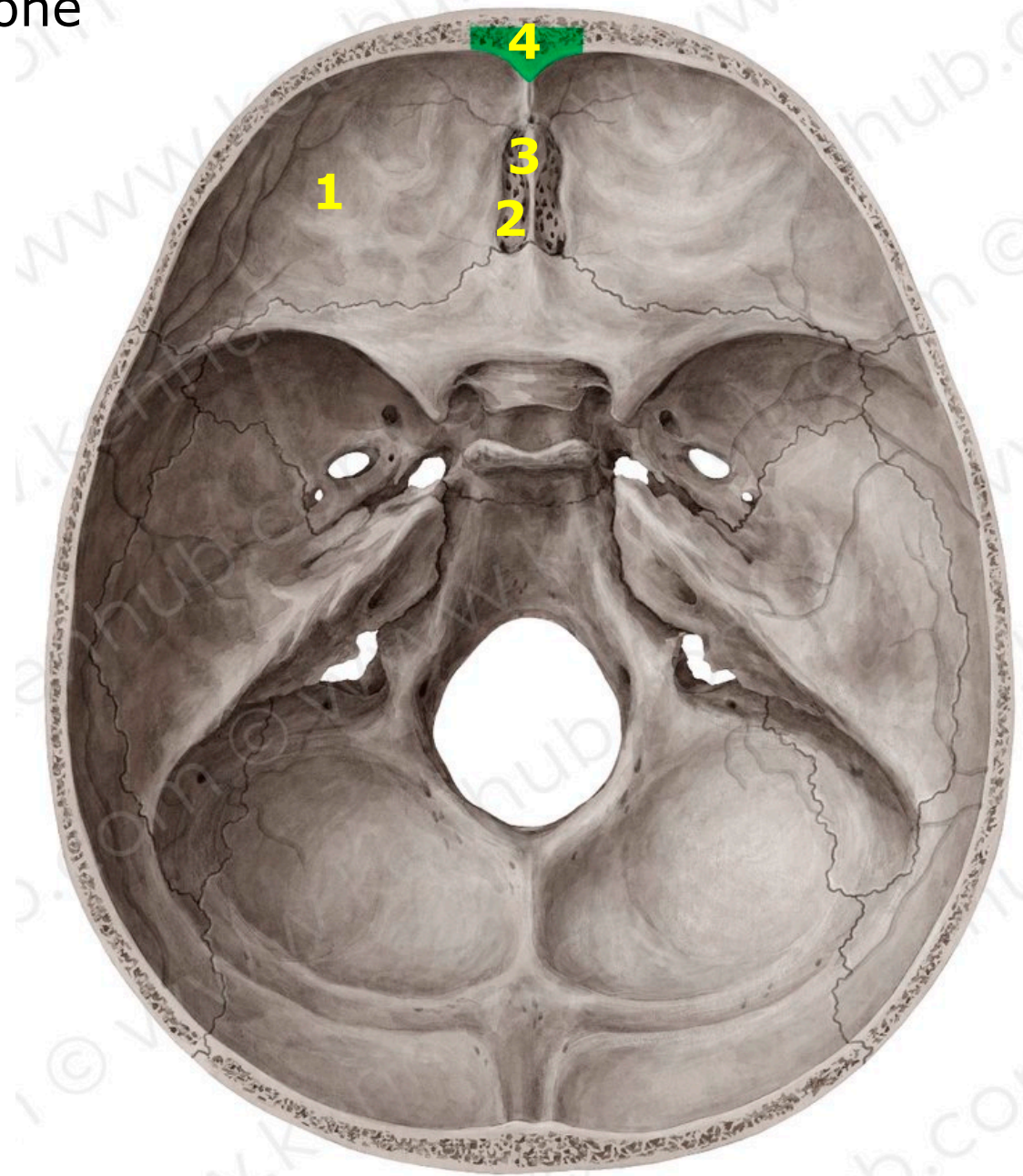
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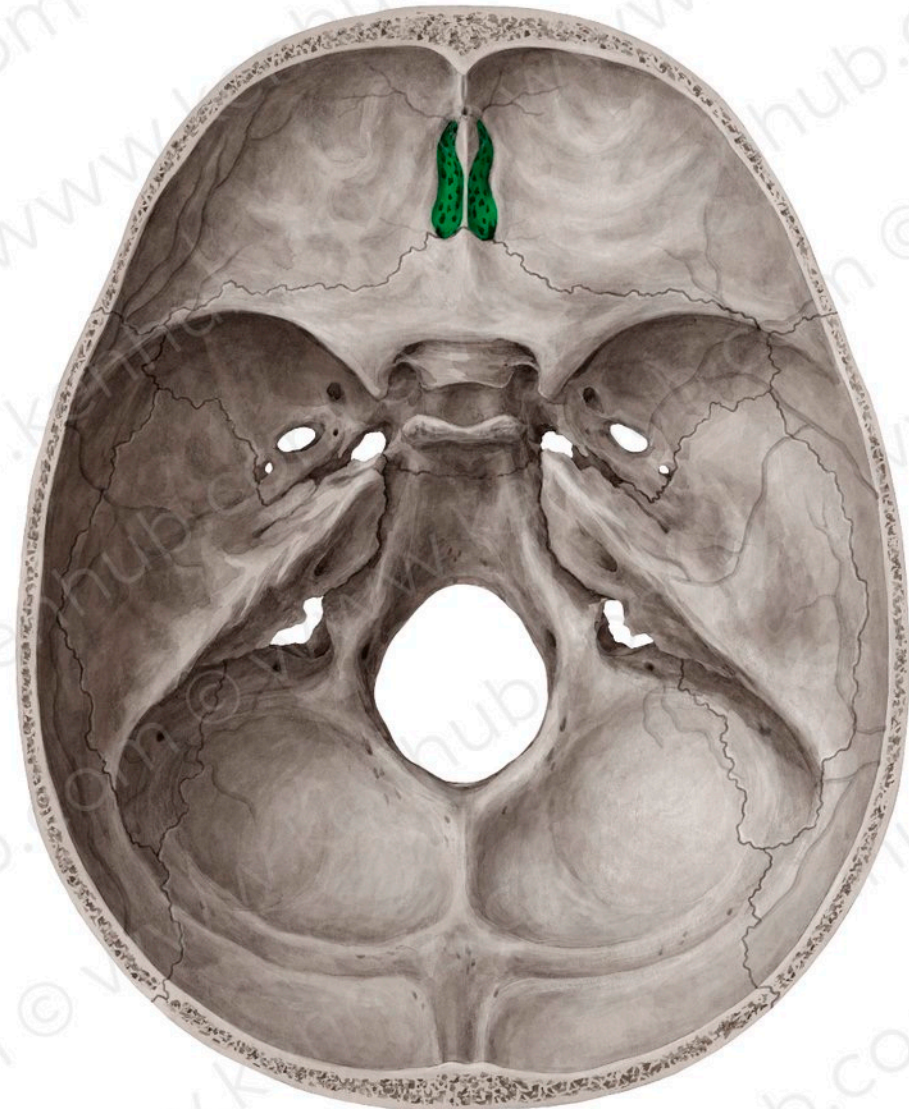
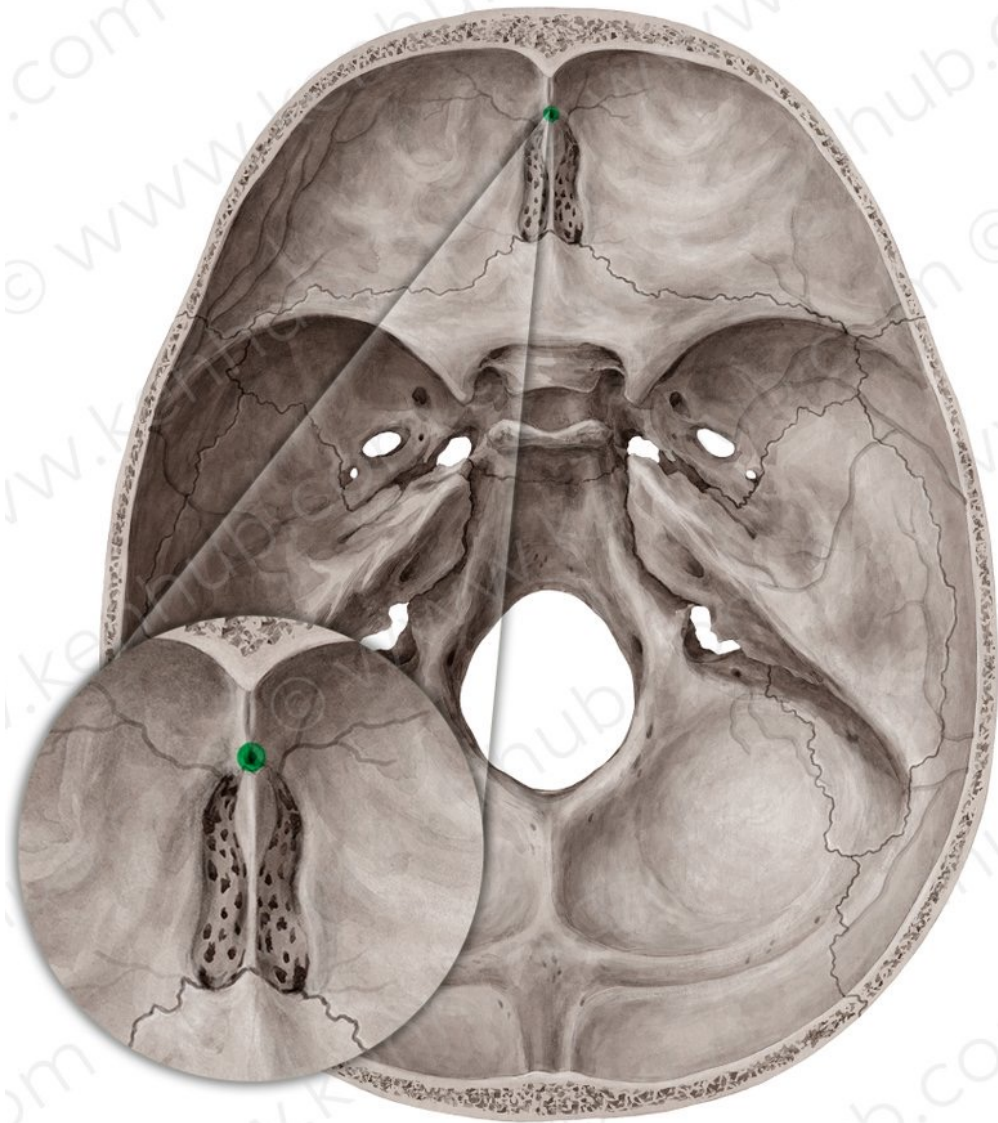
The cranial cavity is divided into

- 1- Anterior cranial fossa
- 2- Middle cranial fossa
- 3- Posterior cranial fossa



1. Orbital plates of the frontal bone
2. Cribriform plate of ethmoid
3. Crista galli
4. Frontal crest

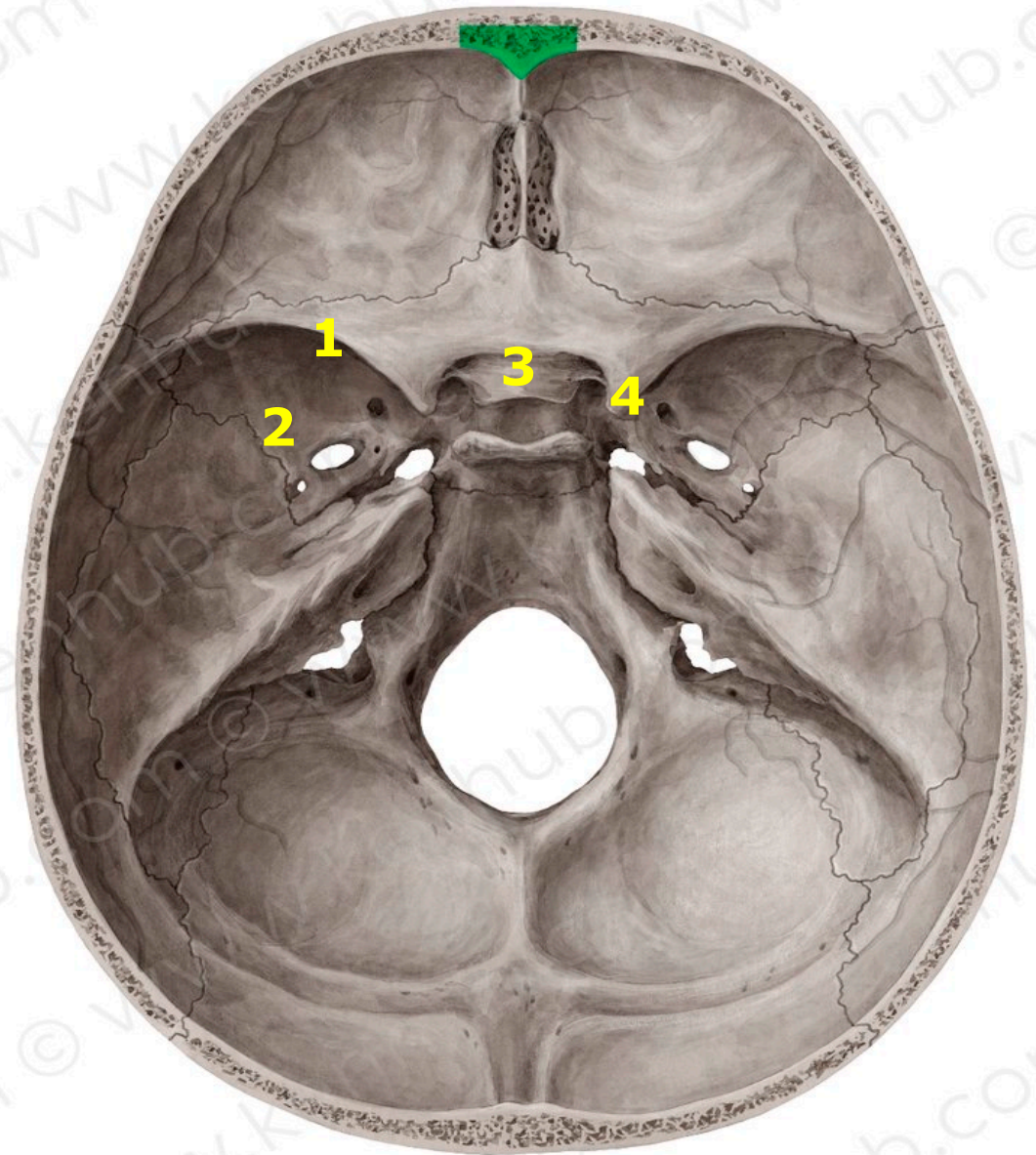
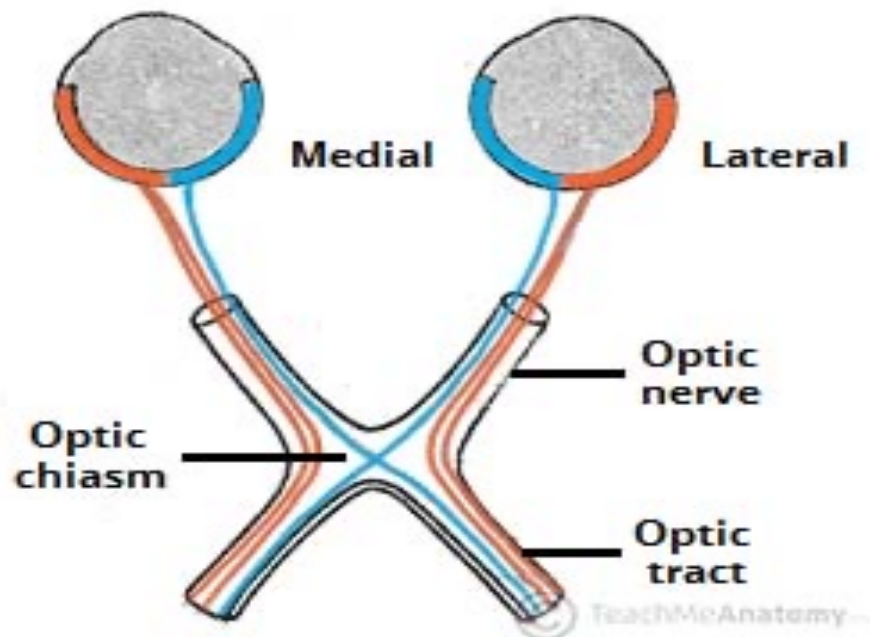




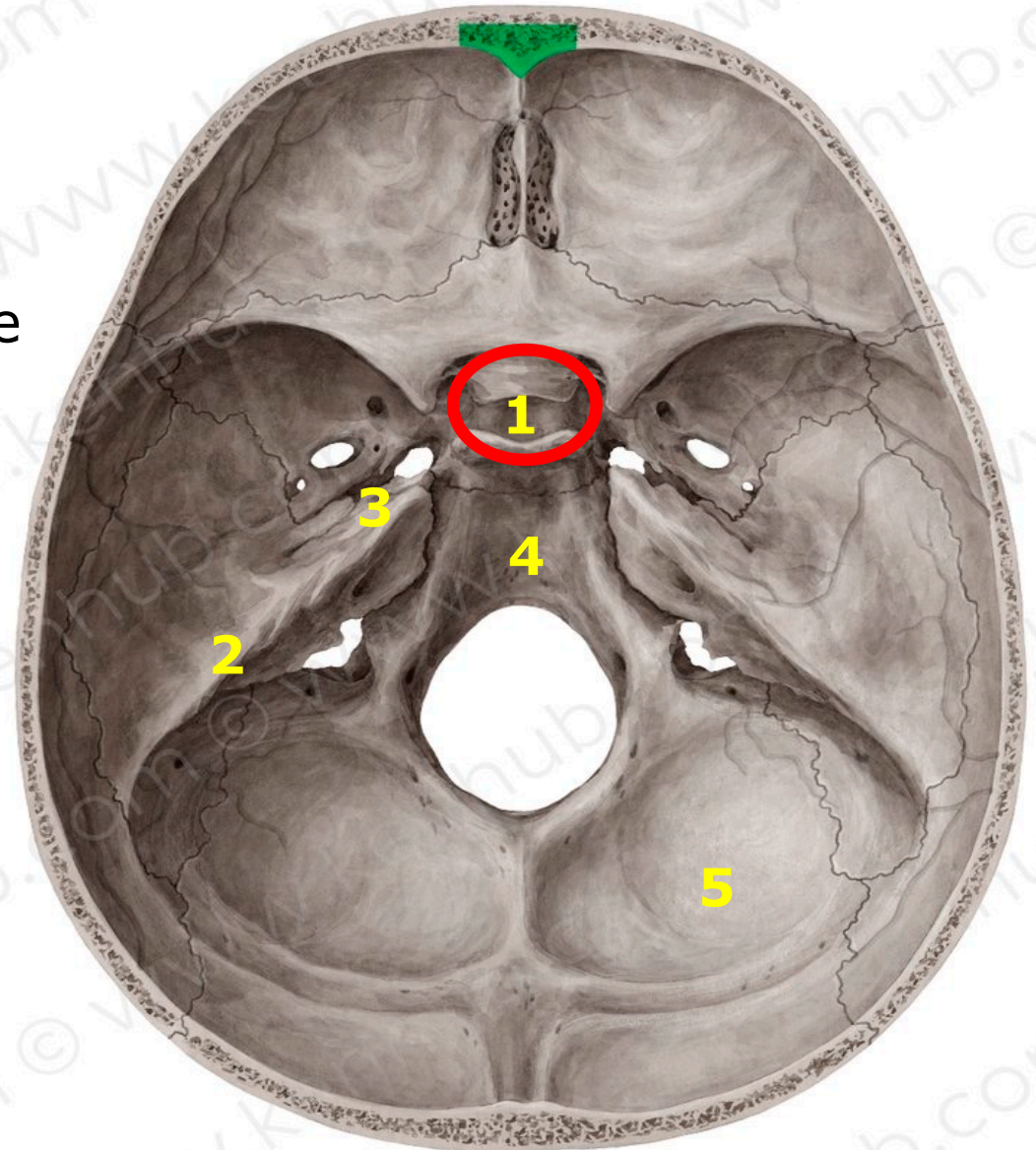
Foramen cecum

Cribriform plate of ethmoid

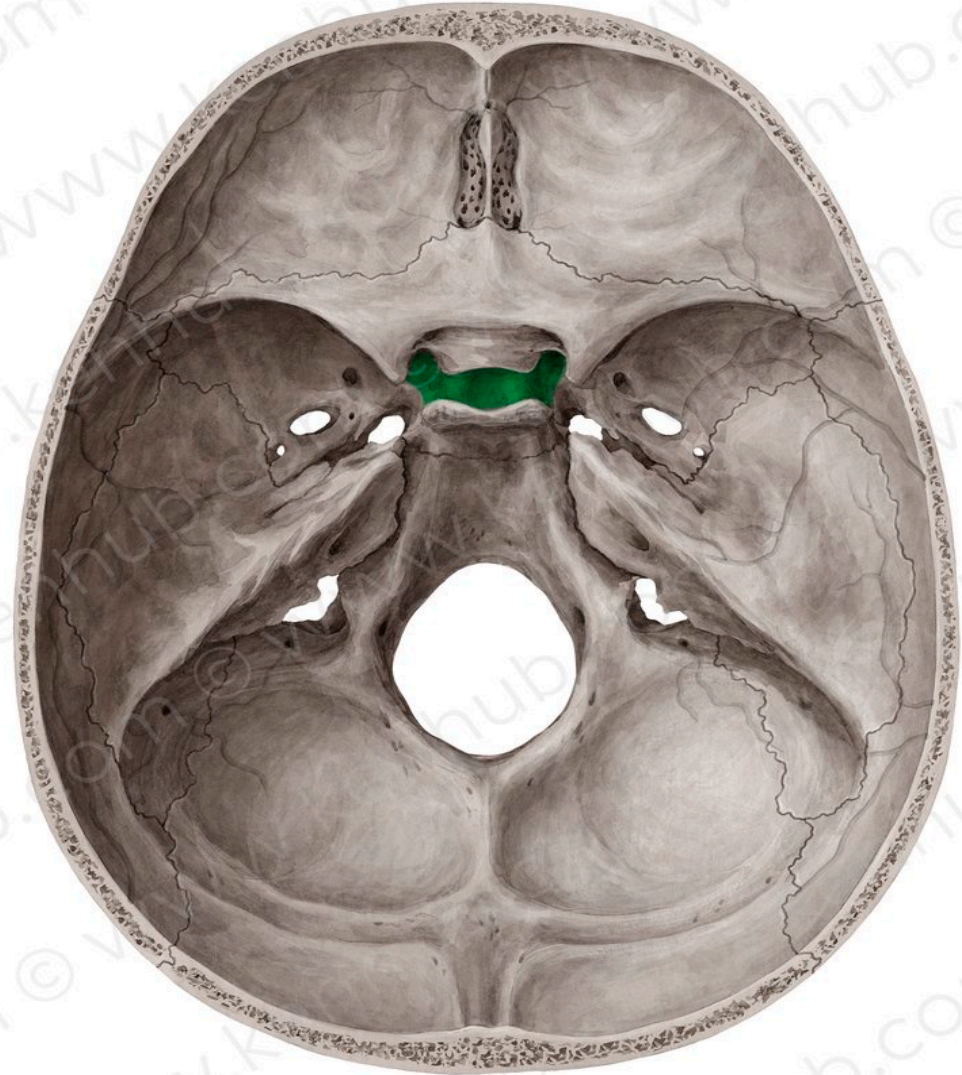
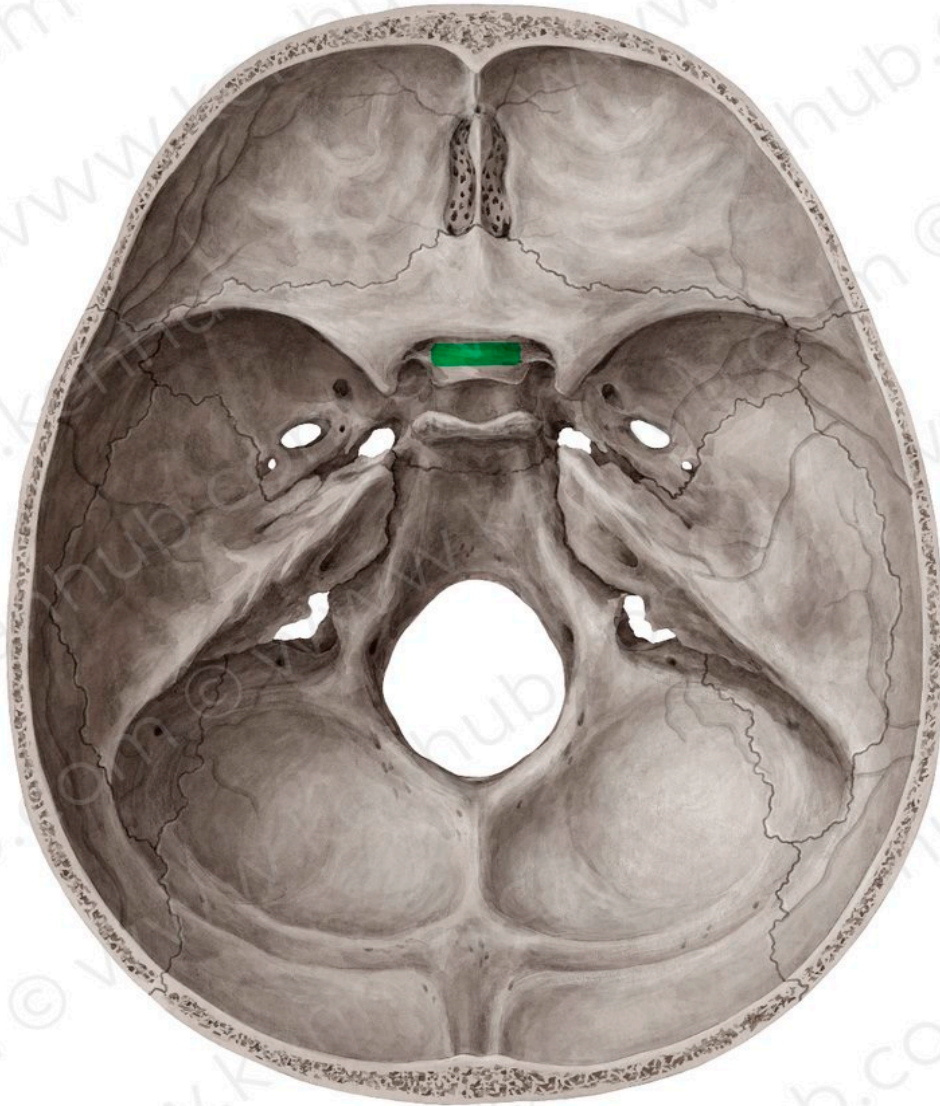
1. Lesser wing of sphenoid
2. Greater wing of sphenoid
3. »ulcus chiasmaticus
4. Anterior clinoid process



1. Sella turcica
2. Petrous part of temporal bone
3. Trigeminal impression
4. Basilar part of occipital bone
5. Squamous part of occipital bone

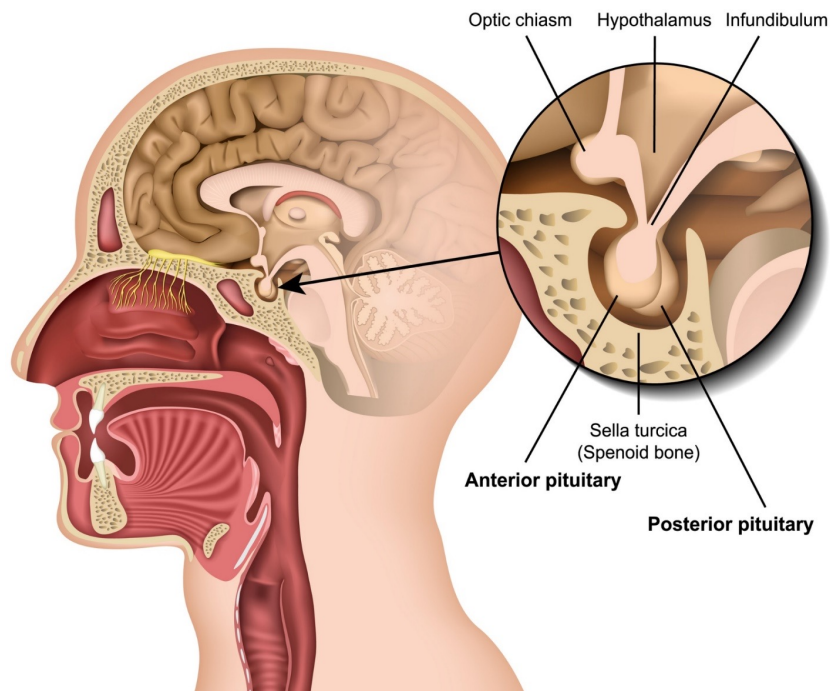
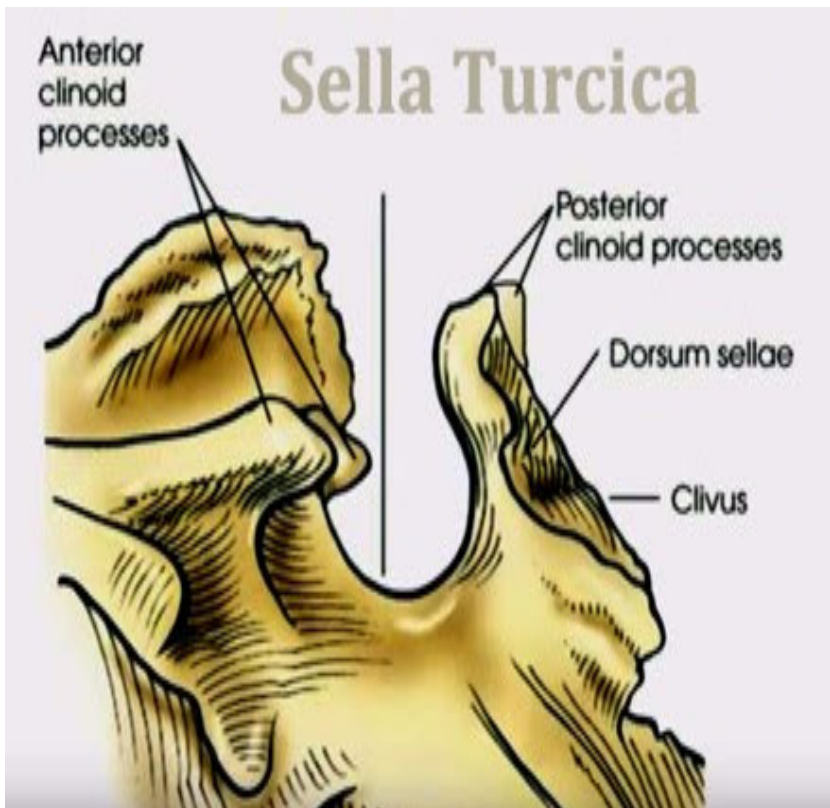


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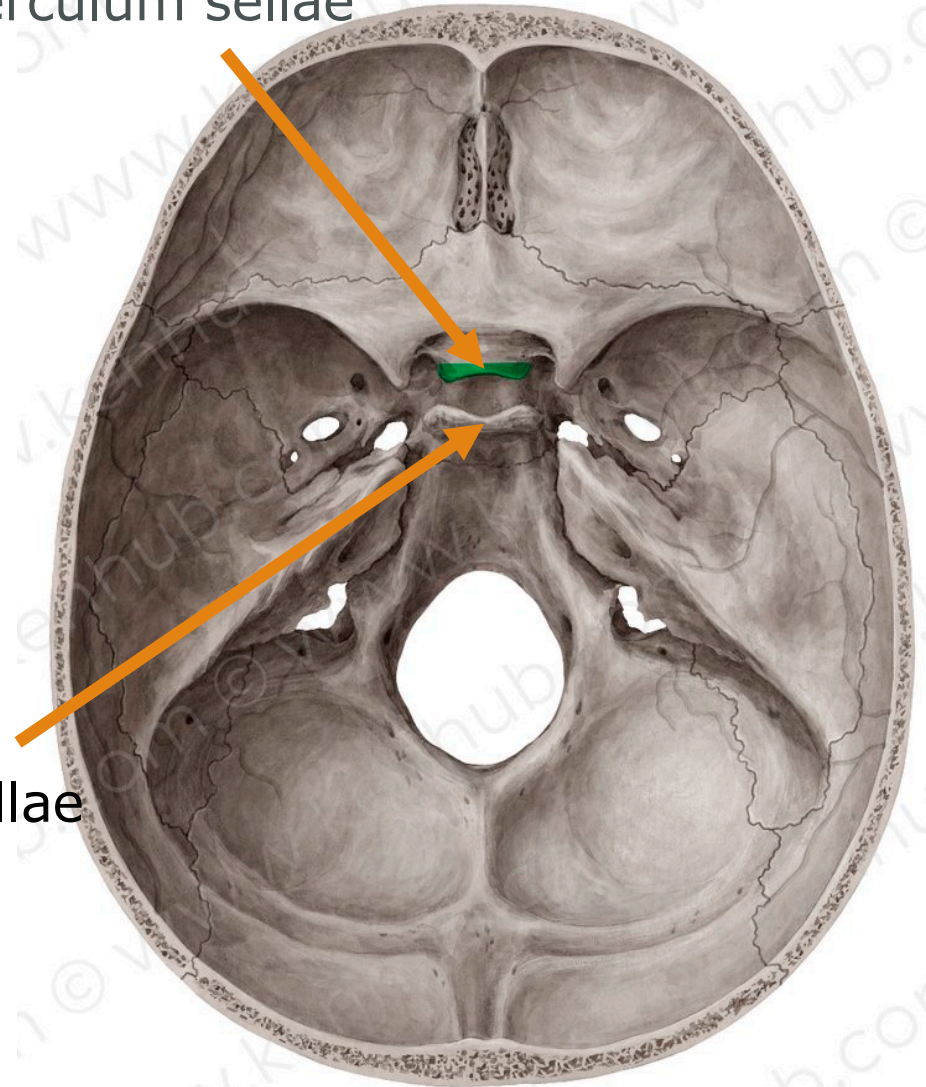


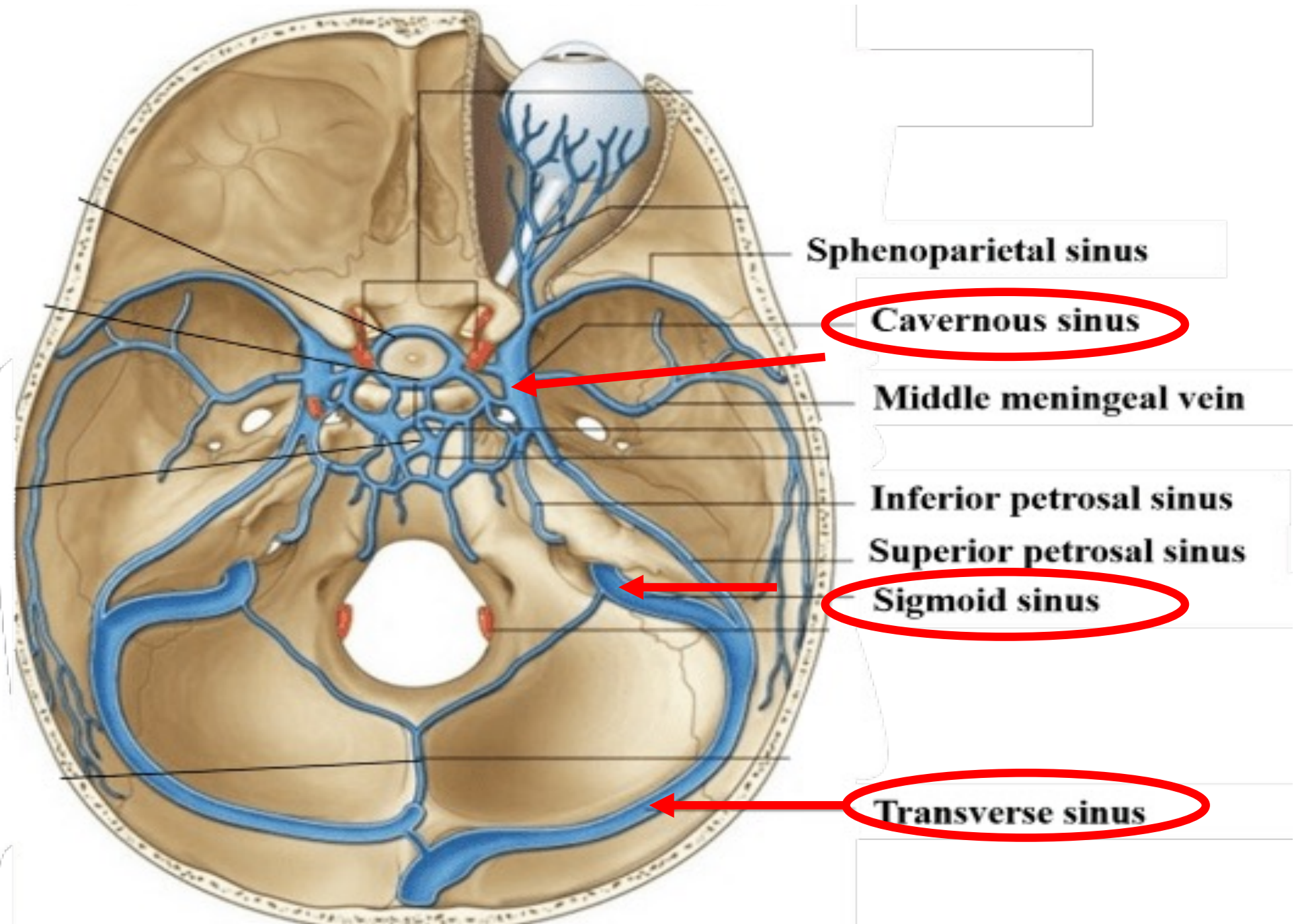
Sulcus chiasmaticus

Sella turcica

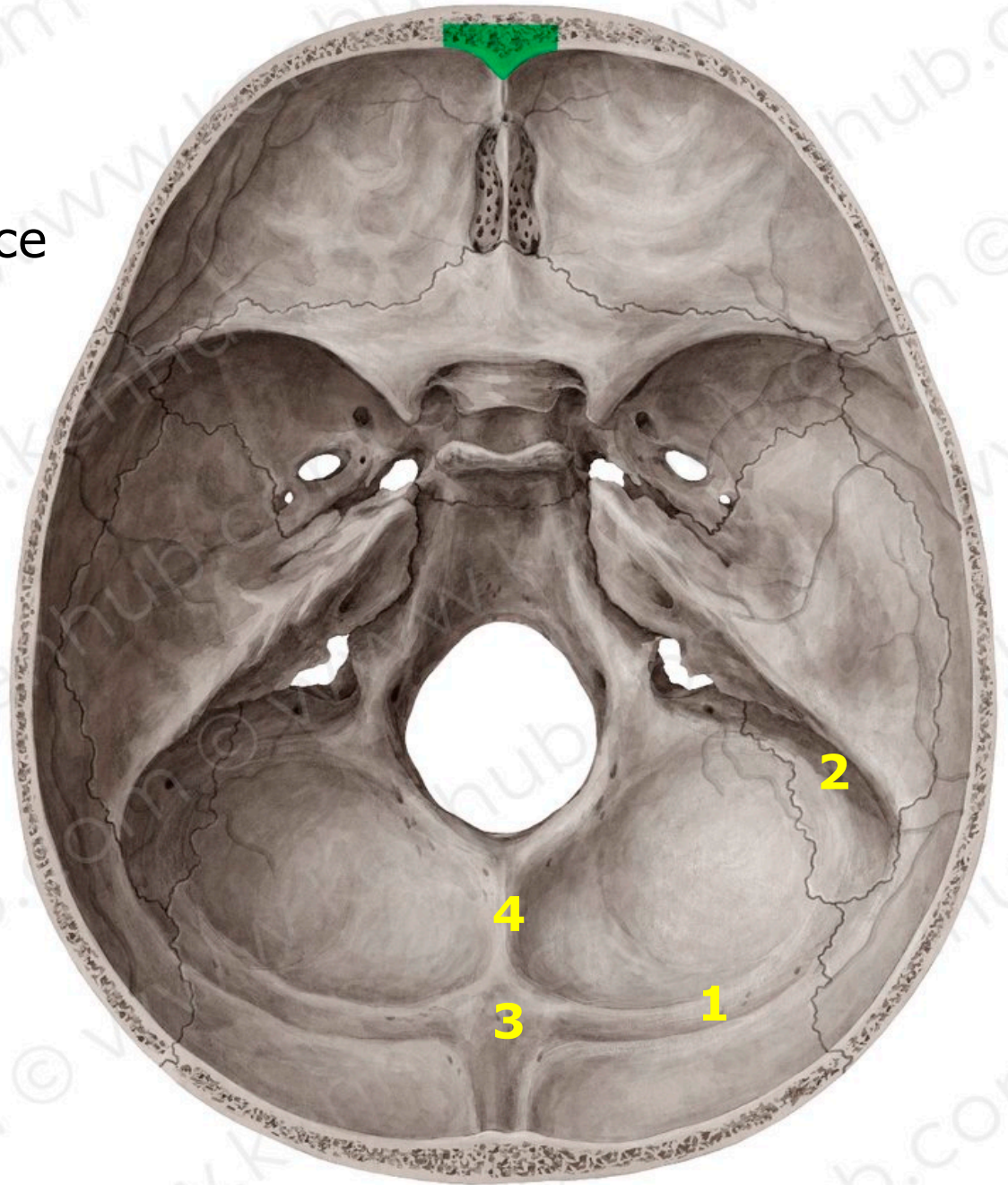


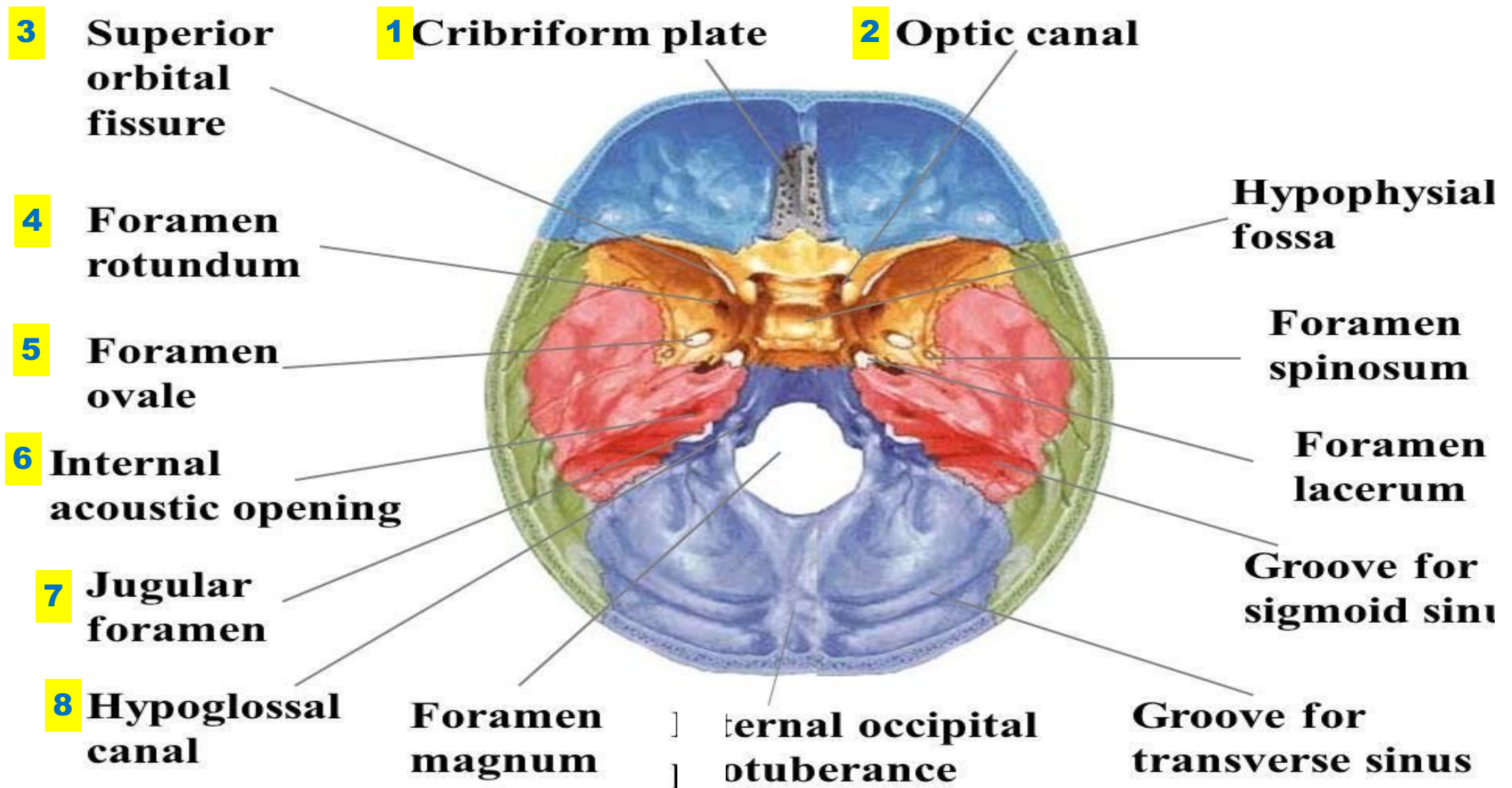
Tuberculum sellae



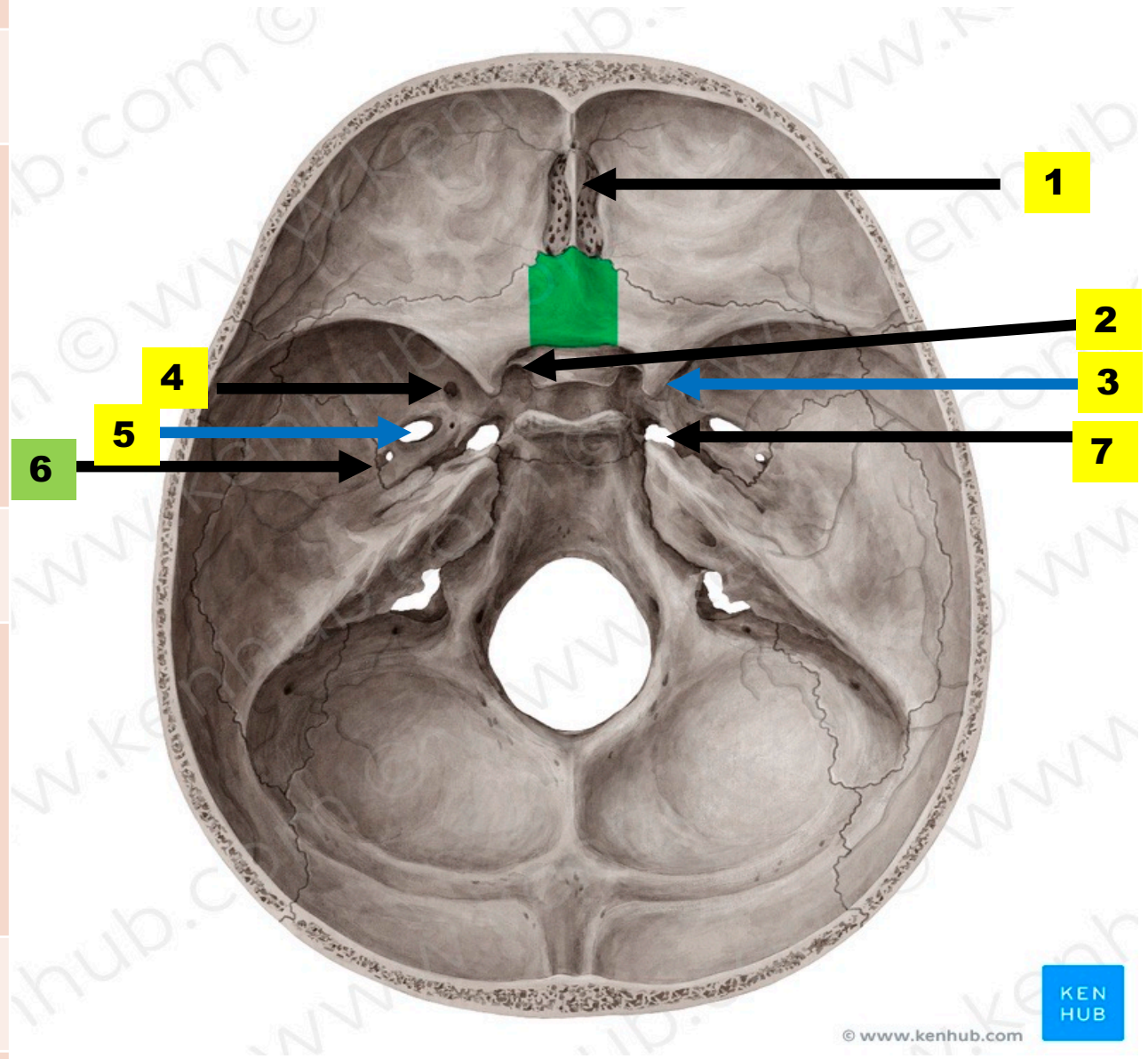


1. Groove for transverse sinus
2. Groove for sigmoid sinus
3. Internal occipital protuberance
4. Internal occipital crest

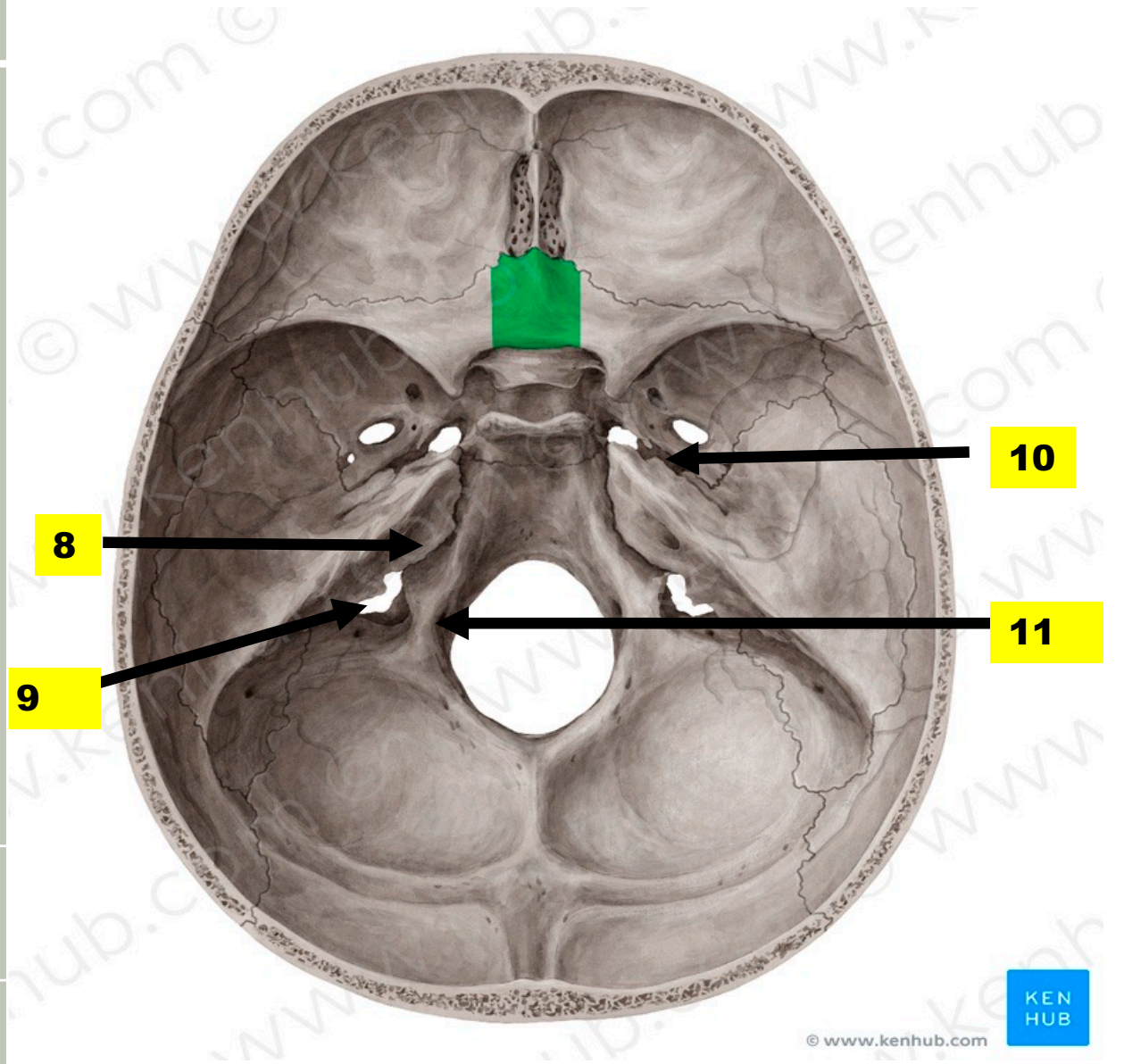




Foramina	Contents
1-Cribriform Plate	Olfactory N (I)
2-Optic canal	Optic nerve (II) and ophthalmic artery
3-Superior orbital fissure	Oculomotor (III), Trochlear (IV), Abducence (VI) and (lacrimal, frontal and nasociliary) branches of ophthalmic nerves (V1)
4-Foramen Rotundum	maxillary nerve
5-Foramen Ovale	M andibular nerve V3 A ccessory meningeal A. L esser petrosal nerve E missary vein
6-Foramen spinosum	Middle meningeal artery Nervus spinosus
7-Foramen Lacerum	Nerve and Artery of pterygoid canal and emissary vein



8-Internal acoustic meatus	Facial nerve (VII), vestibulocochlear nerve (VIII)
9-Jugular Foramen	Inferior petrosal sinus (Anterior) Glossopharyngeal nerve (IX), vagus nerve (X), accessory nerve (XI) (Intermediate) Sigmoid sinus (Posterior) which become internal jugular vein
10- Carotid canal	Internal carotid artery
11Hypoglossal Canal	Hypoglossal Nerve (XII)



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