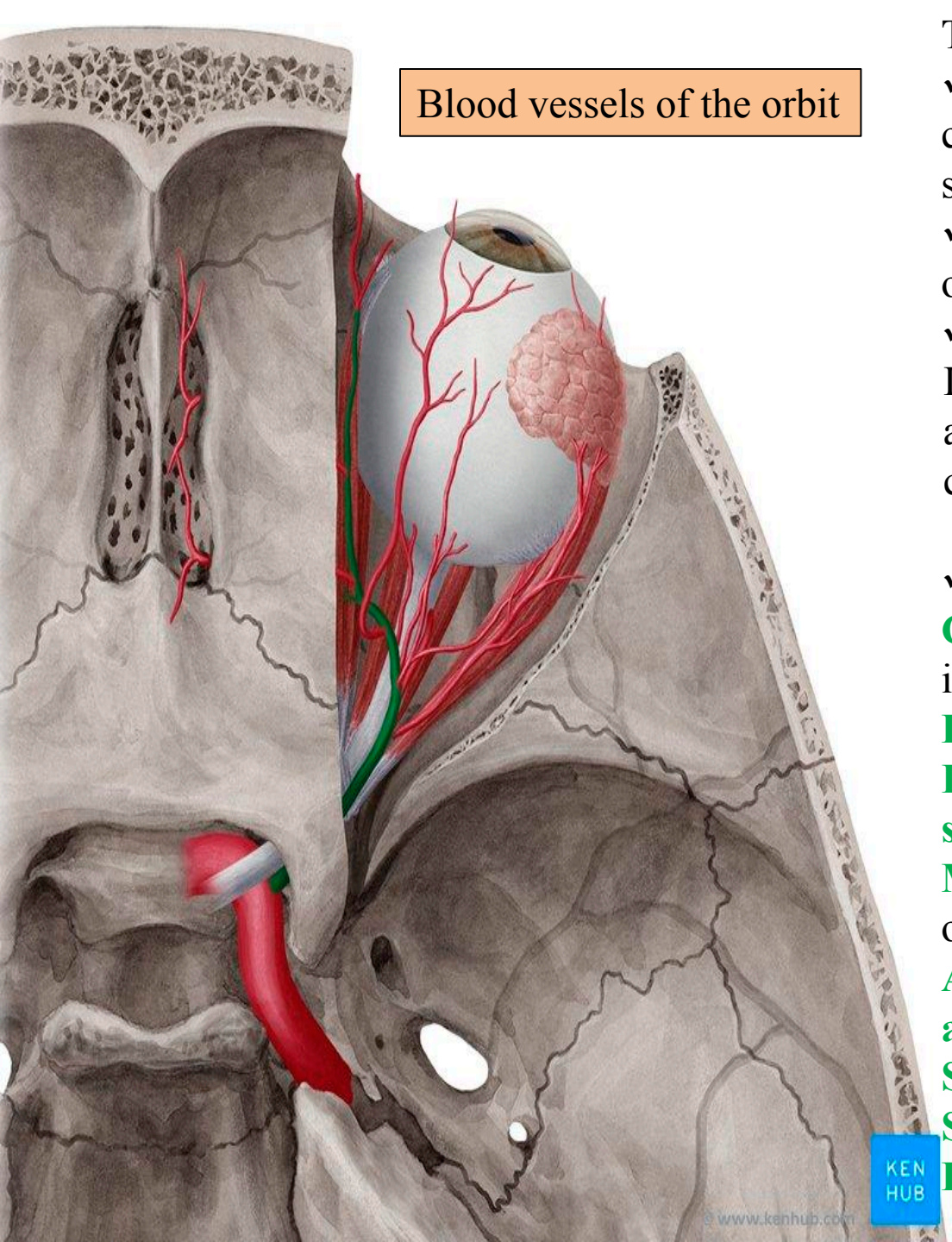

The ophthalmic artery

✓ Is the first branch of the internal carotid artery distal to the cavernous sinus

✓Passes through the optic canal with the optic nerve

✓Runs along the medial wall of the orbit. It gives off numerous branches, which accompany the nerves in the orbital cavity

✓ Branches:

Central retinal artery: supplies the inner retinal layers.

Lacrimal artery

Posterior ciliary arteries (long and short)

Muscular branches: supplies extra ocular muscles

Anterior and posterior ethmoidal arteries

Supraorbital artery

Supratrochlear artery

External nasal artery

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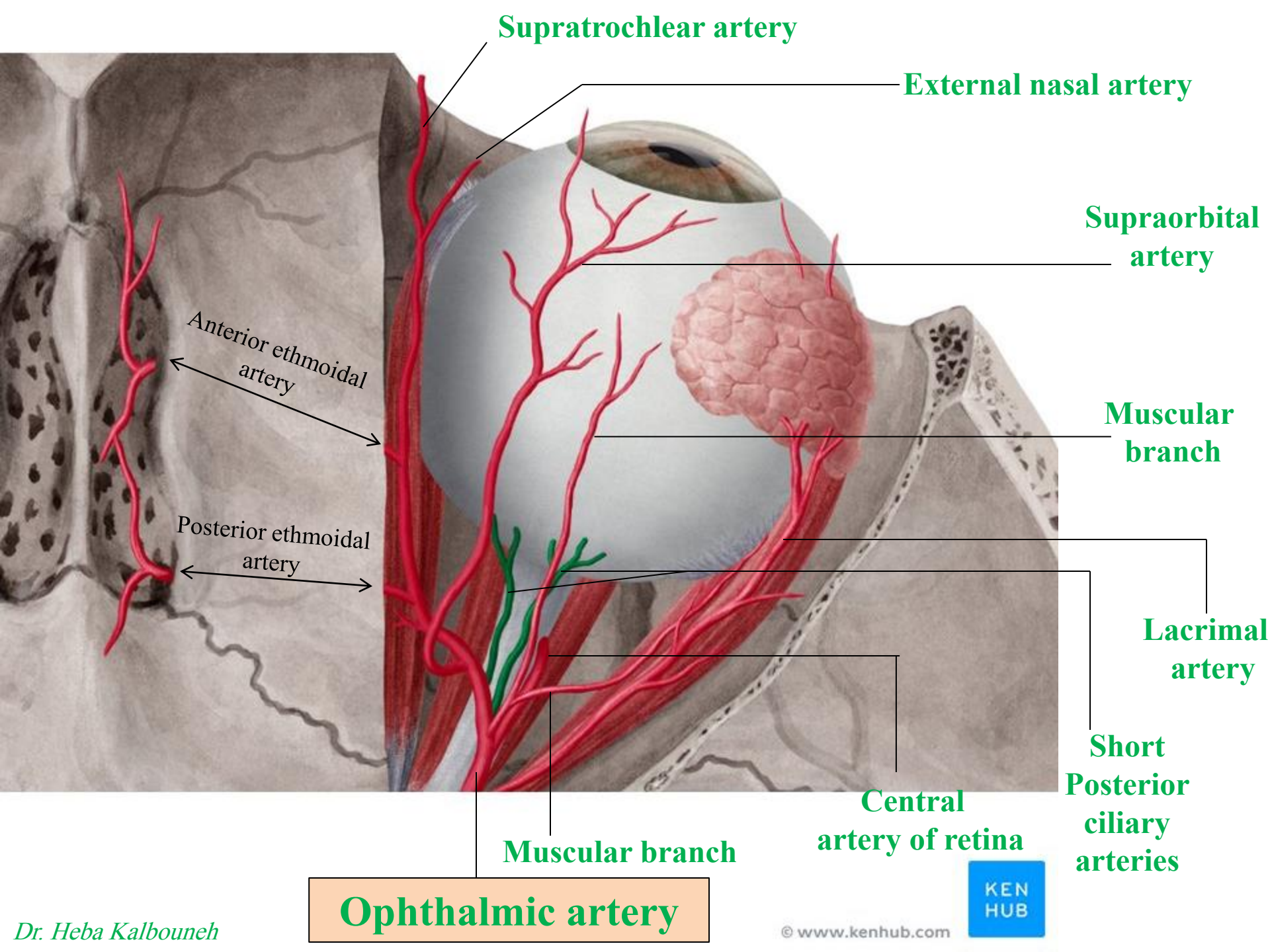

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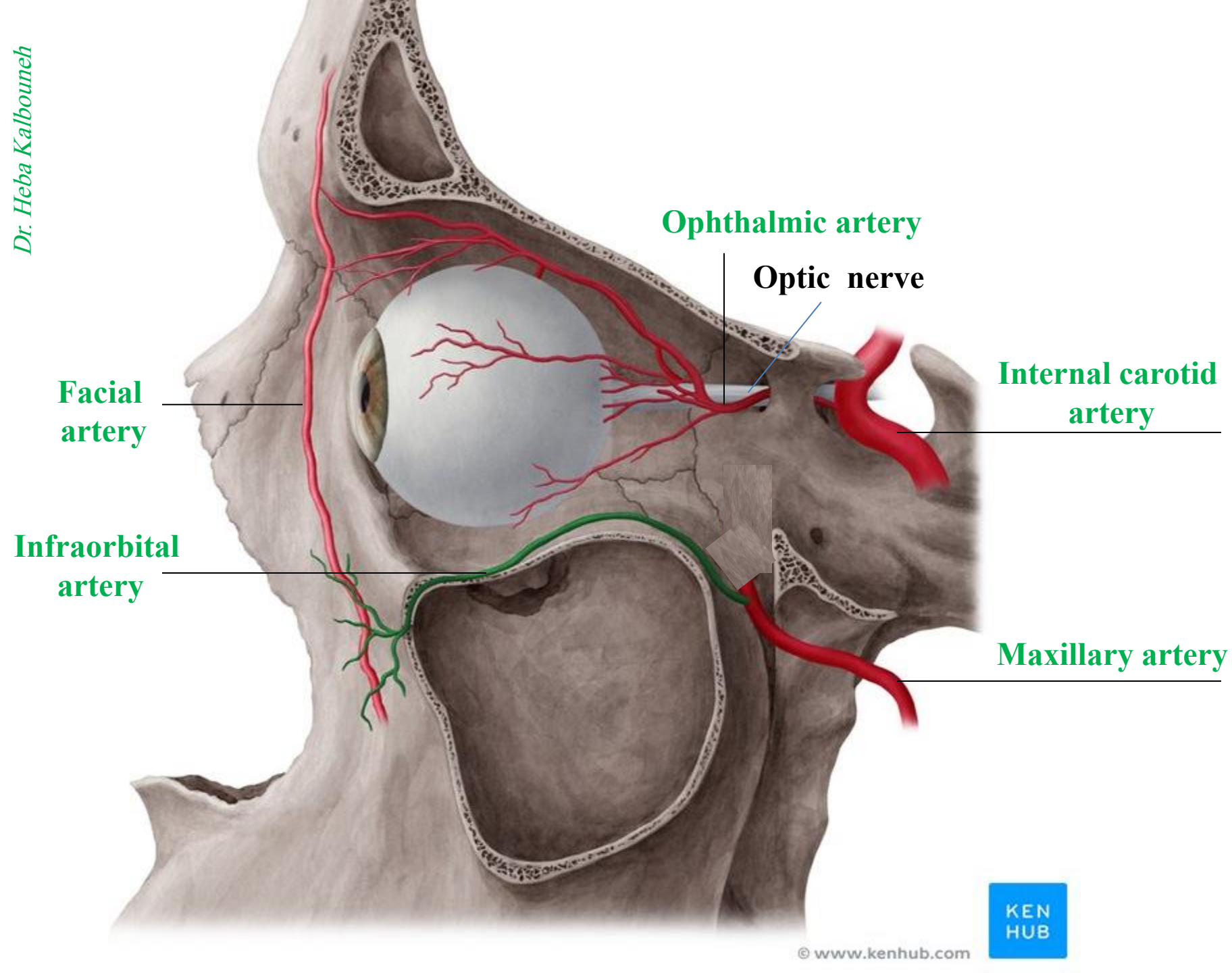
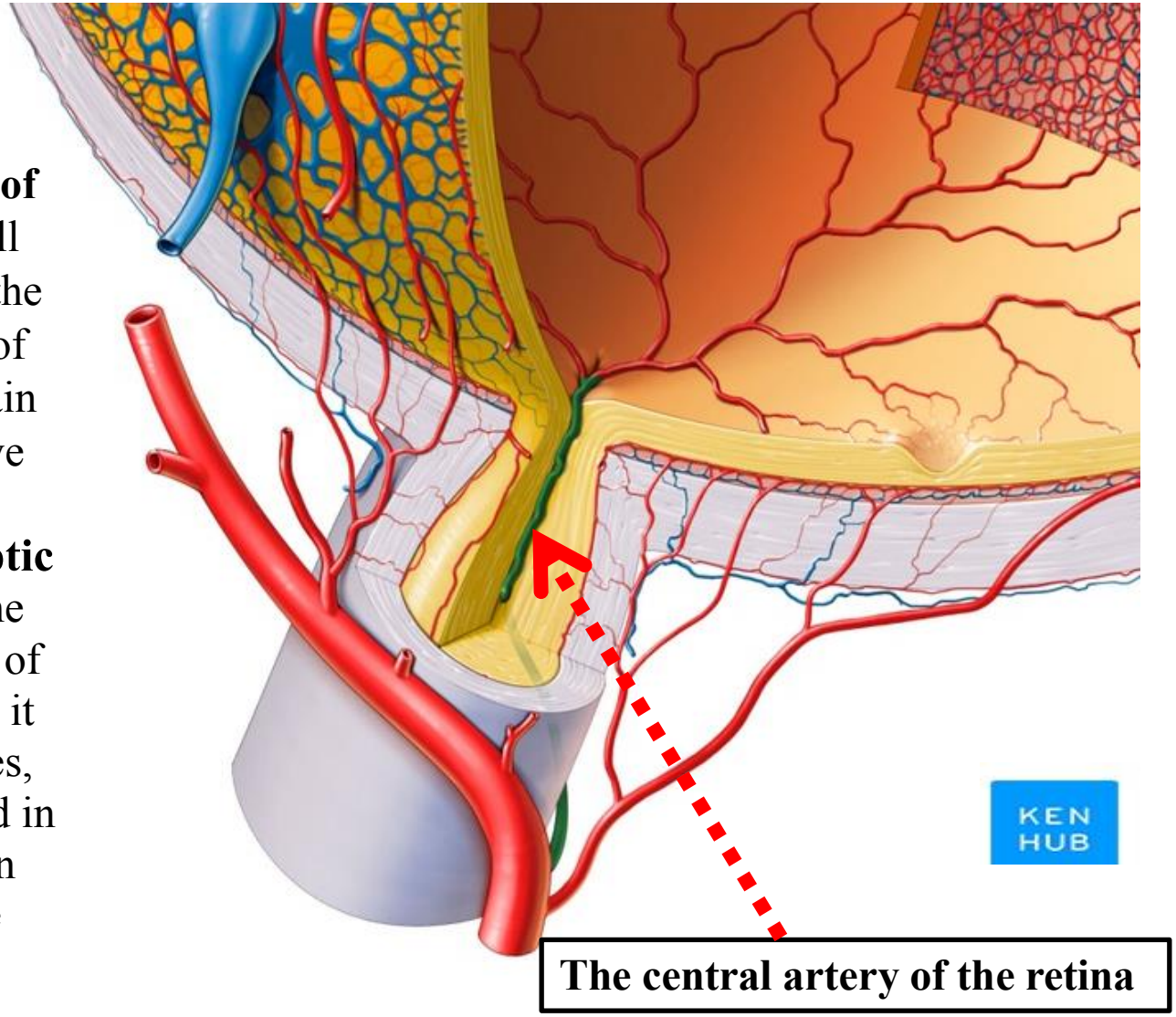
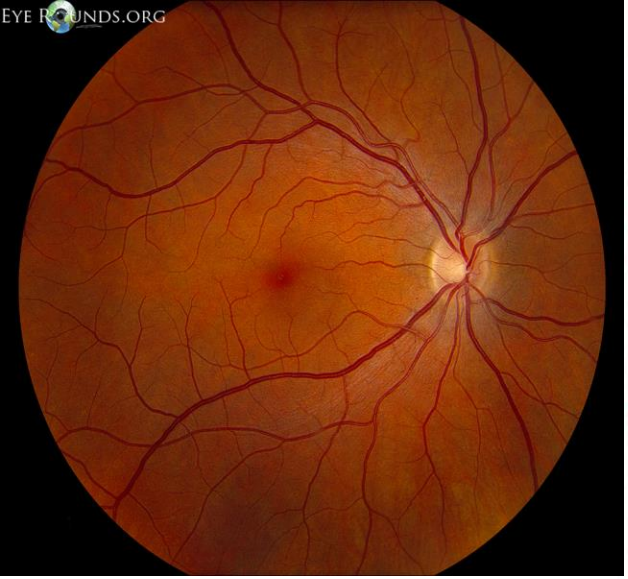


The central artery of the retina is a small branch that **pierces** the meningeal sheaths of the optic nerve to gain entrance to the nerve

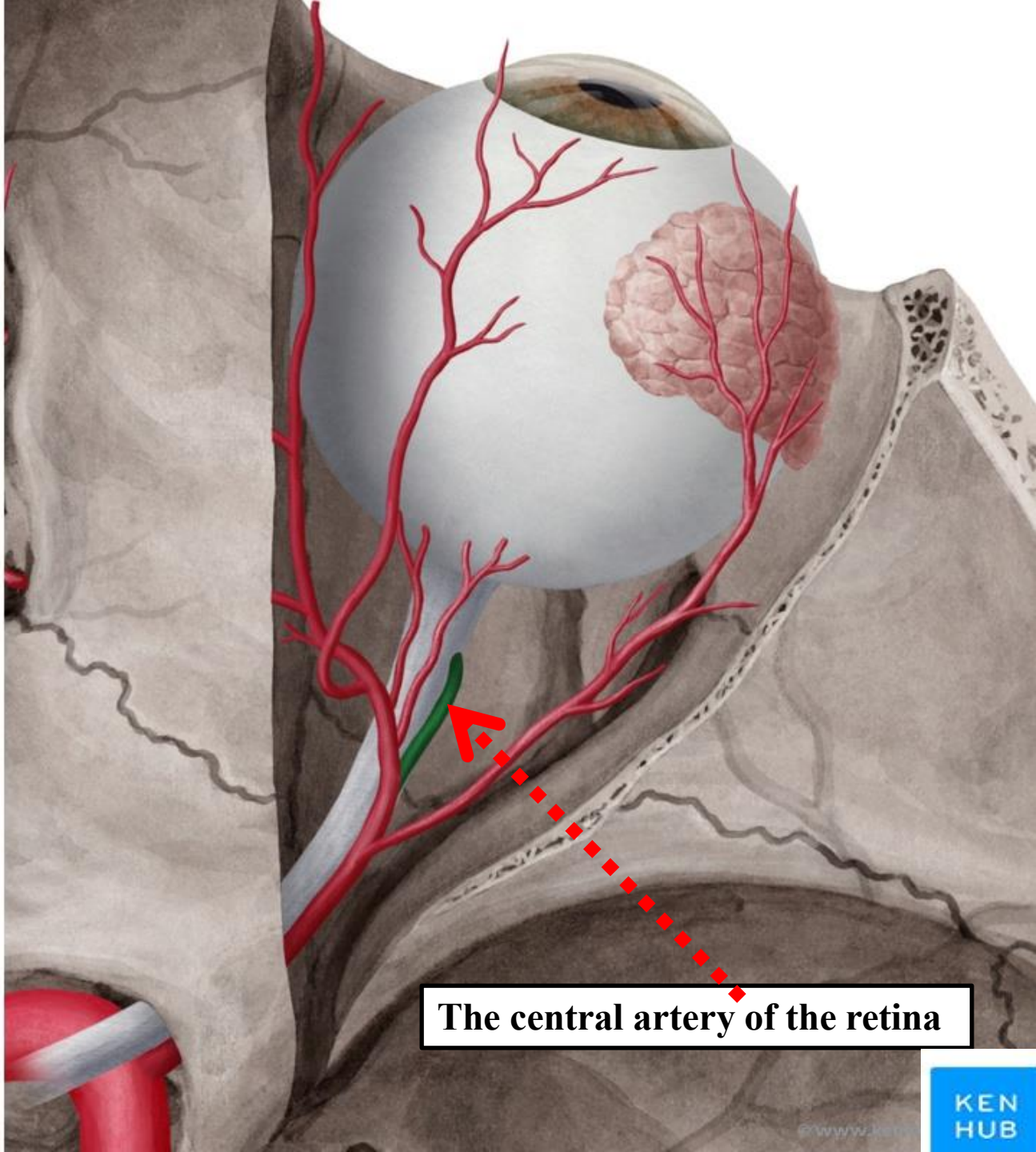
➢**It runs in the substance of the optic nerve** and enters the eyeball at the center of the optic disc. Here, it divides into branches, which may be studied in a patient through an **ophthalmoscope**



Occlusion of central artery of retina results in blindness



Ophthalmoscopic
(Fundoscopic) exam



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Ophthalmic Veins

Superior ophthalmic vein

✓Communicates in front with the facial vein

✓Leaves the orbit through the superior orbital fissure and enters the cavernous sinus

Inferior ophthalmic vein

✓ Leaves the orbit by:

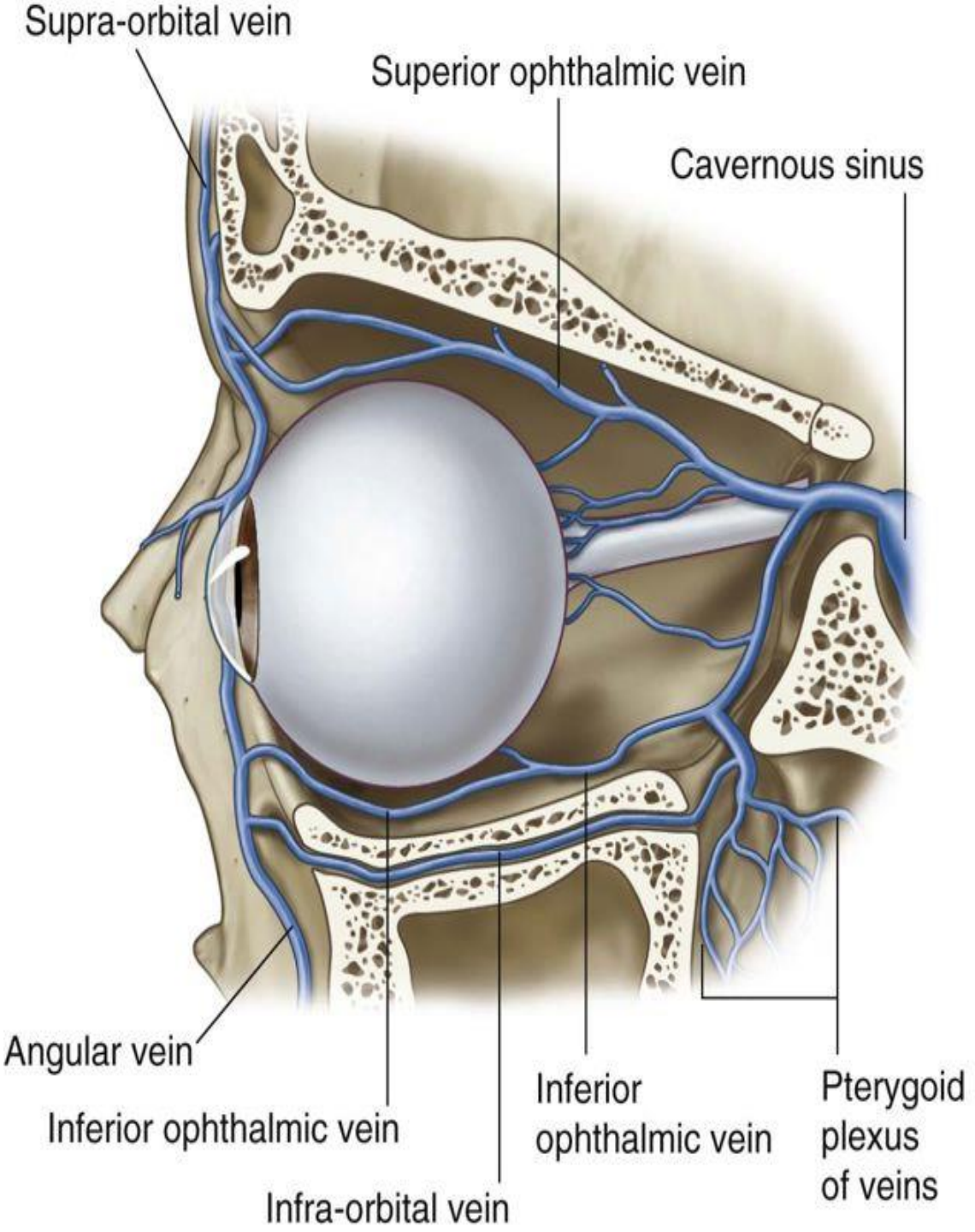
1-Joining the superior ophthalmic vein

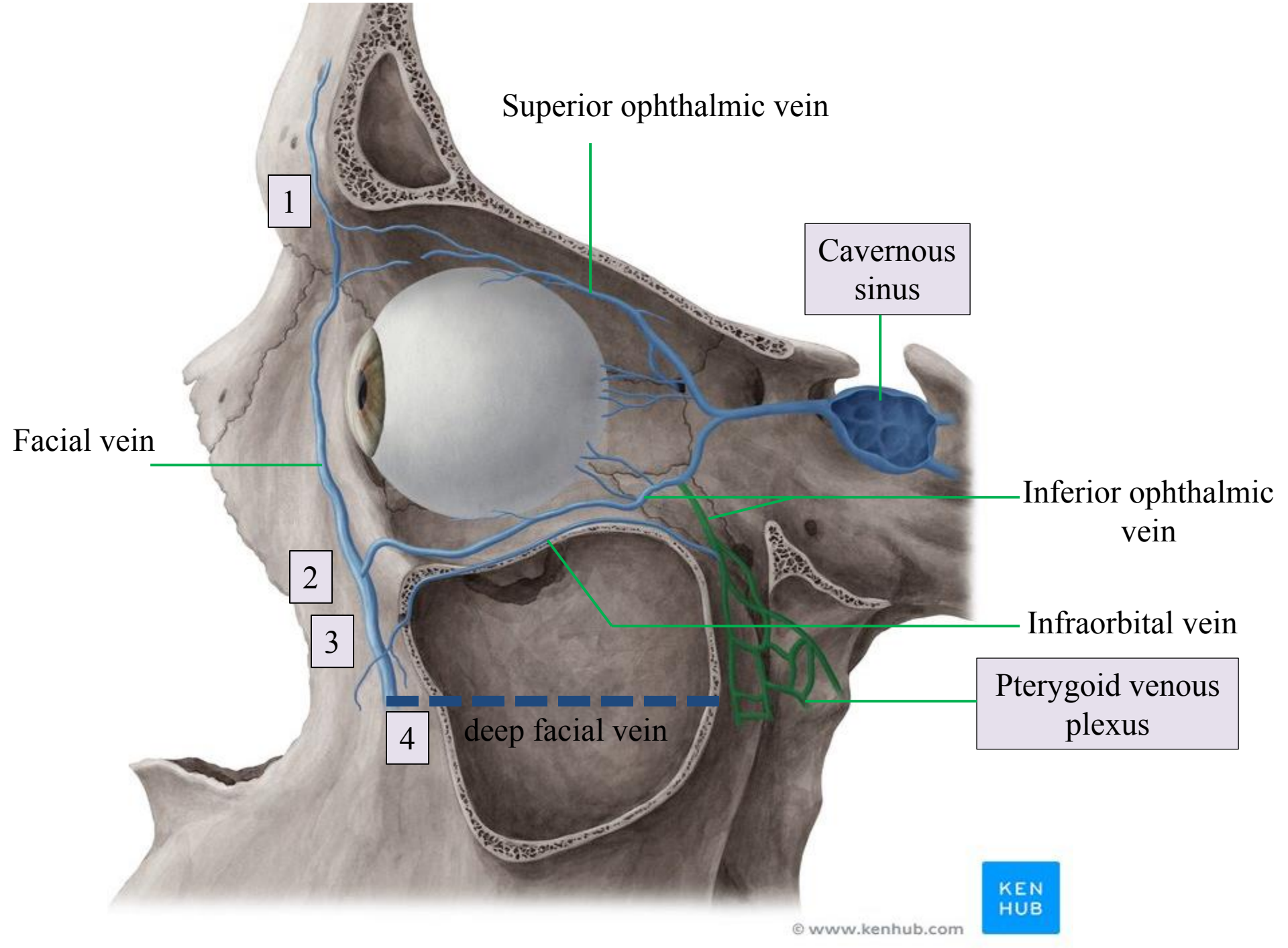
OR

2-Passing through the superior orbital fissure on its own to join the cavernous sinus

OR

3- Passing through the inferior orbital fissure to join with pterygoid venous plexus.




Superior ophthalmic vein
1
Cavernous sinus
Facial vein
Inferior ophthalmic vein
2
3
Infraorbital vein
Pterygoid venous plexus
4
deep facial vein
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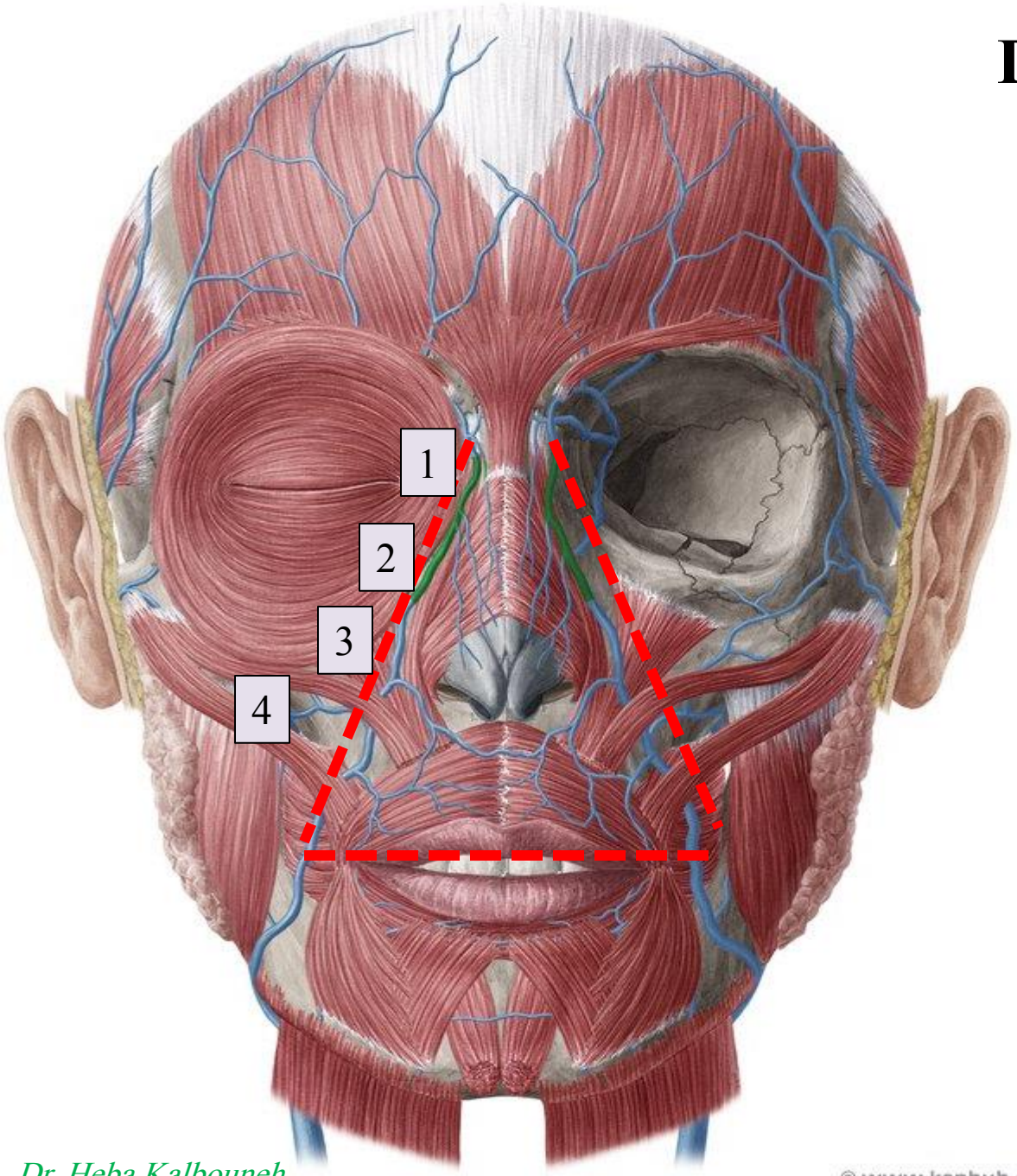
Danger area of the face



Remember that pterygoid venous plexus drains also nasal sinuses, teeth, ears, nose and deep structures

Infection spreading from the nose, sinuses, ears, or teeth
May cause

Septic cavernous sinus thrombosis (the formation of a blood clot within the cavernous sinus)

Staphylococcus aureus and *Streptococcus* are often the associated bacteria.

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