



O S T E O P A T H I C C R A N I A L M A N I P U L A T I O N

Neuroscience Correlation

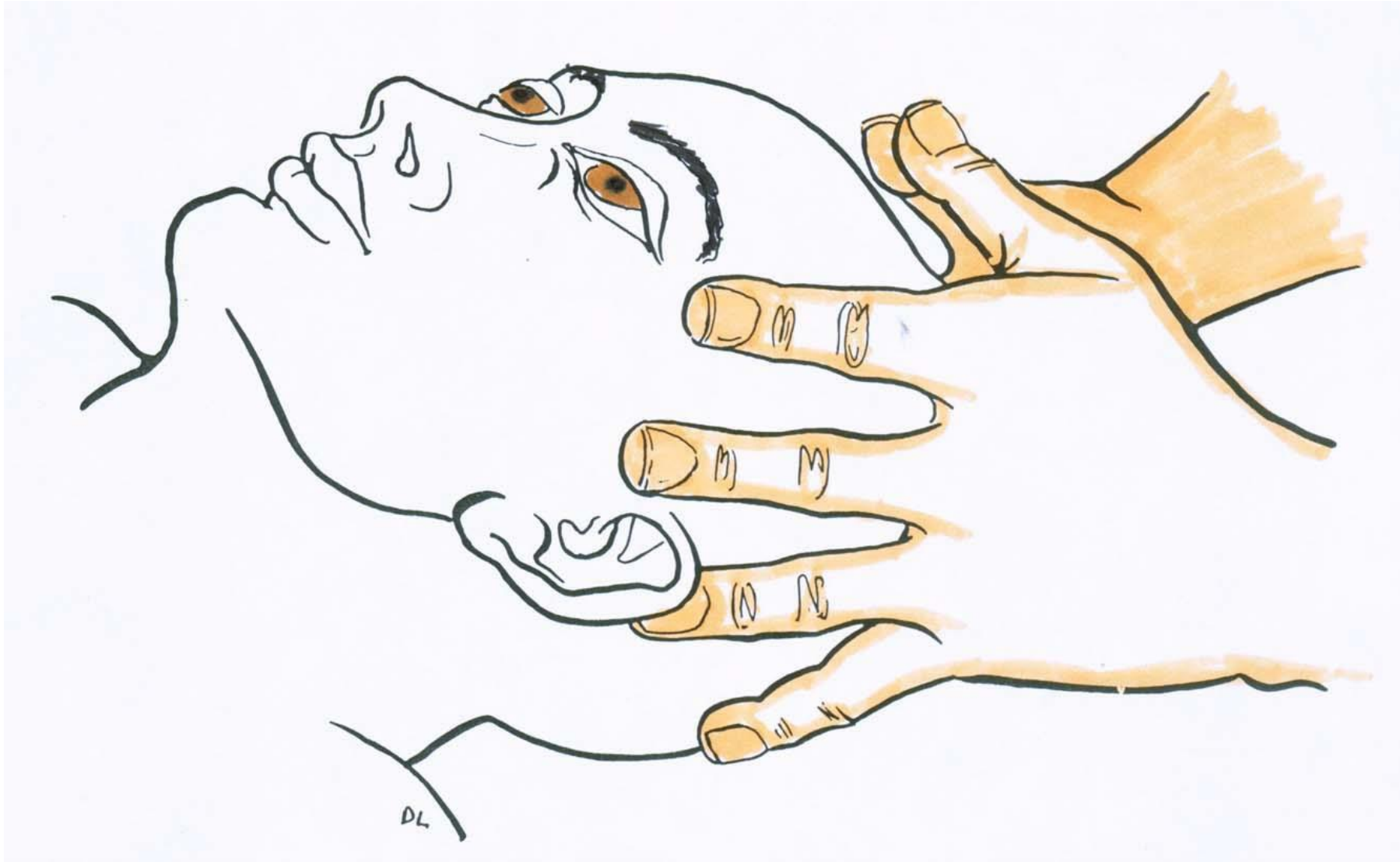
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Kansas Health Sciences Center
Kansas College of Osteopathic Medicine

OSTEOPATHIC CRANIAL MANIPULATION NEUROSCIENCE CORRELATION

OBJECTIVES: At the end of this presentation, participants shall

- 1) Discuss the Neuroscience Concepts involved in Osteopathic Cranial Manipulation (OCMM).
- 2) Discuss the Neuroscientific mechanisms by which different indications for OCMM are resolved.
- 3) List potential future studies that might further establish Neuroscience Concepts involved in OCMM.
- 4) Be better motivated to use and implement OCMM in their respective practices.

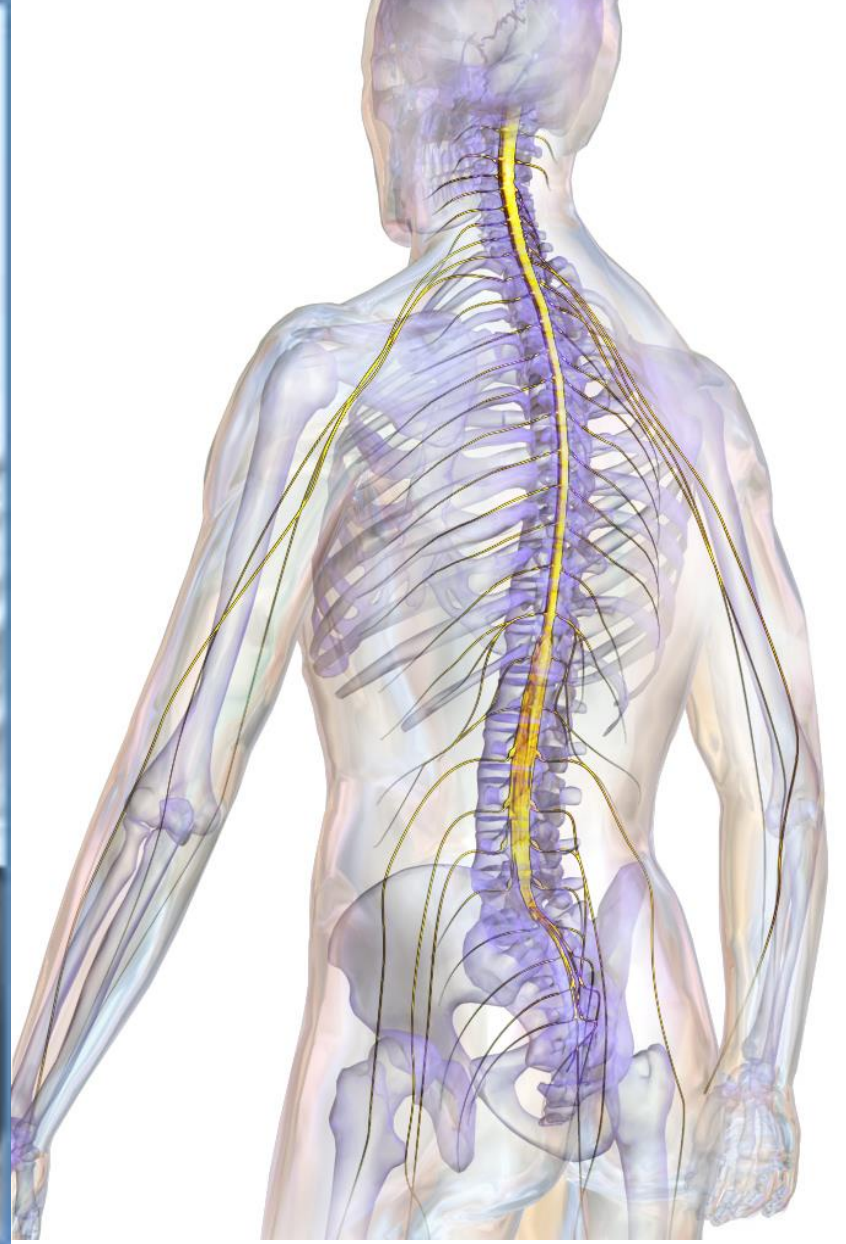
VAULT HOLD



OCMM – Admittedly, one of the more difficult and least practiced of OMM



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Neuroscience



Principles of Diagnosis

HISTORY: Trauma: including birth trauma, MVA, surgery, thumb sucking, dental work, fractures, concussions, falls, infections etc.

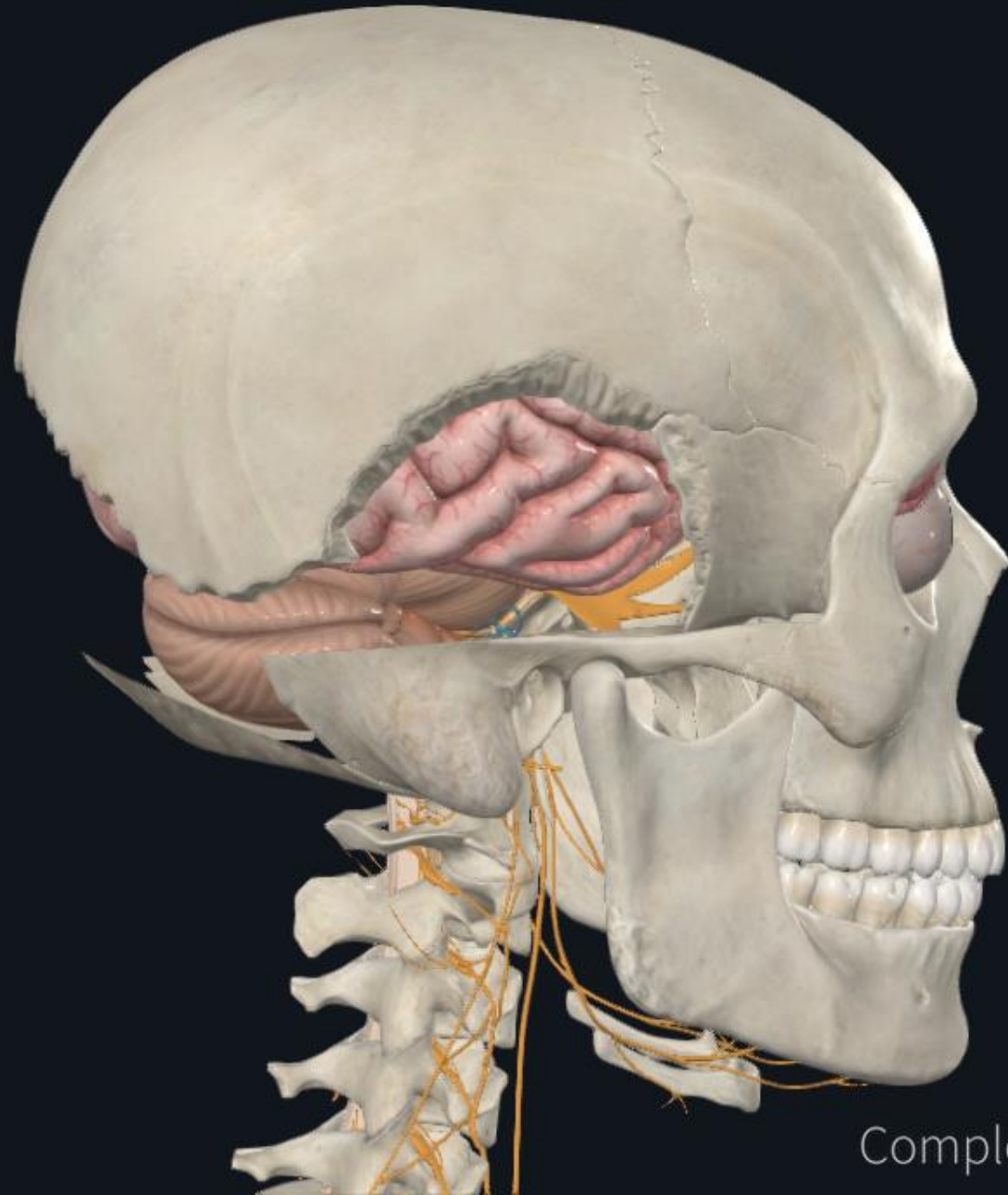
T- soft tissue changes, heat, muscle tightness, intra-osseous changes

A-landmarks including sutures, fontanelles

R-in joints and membrane

T- Counterstrain tender points for TMJ and cranium





Complete **Anatomy**

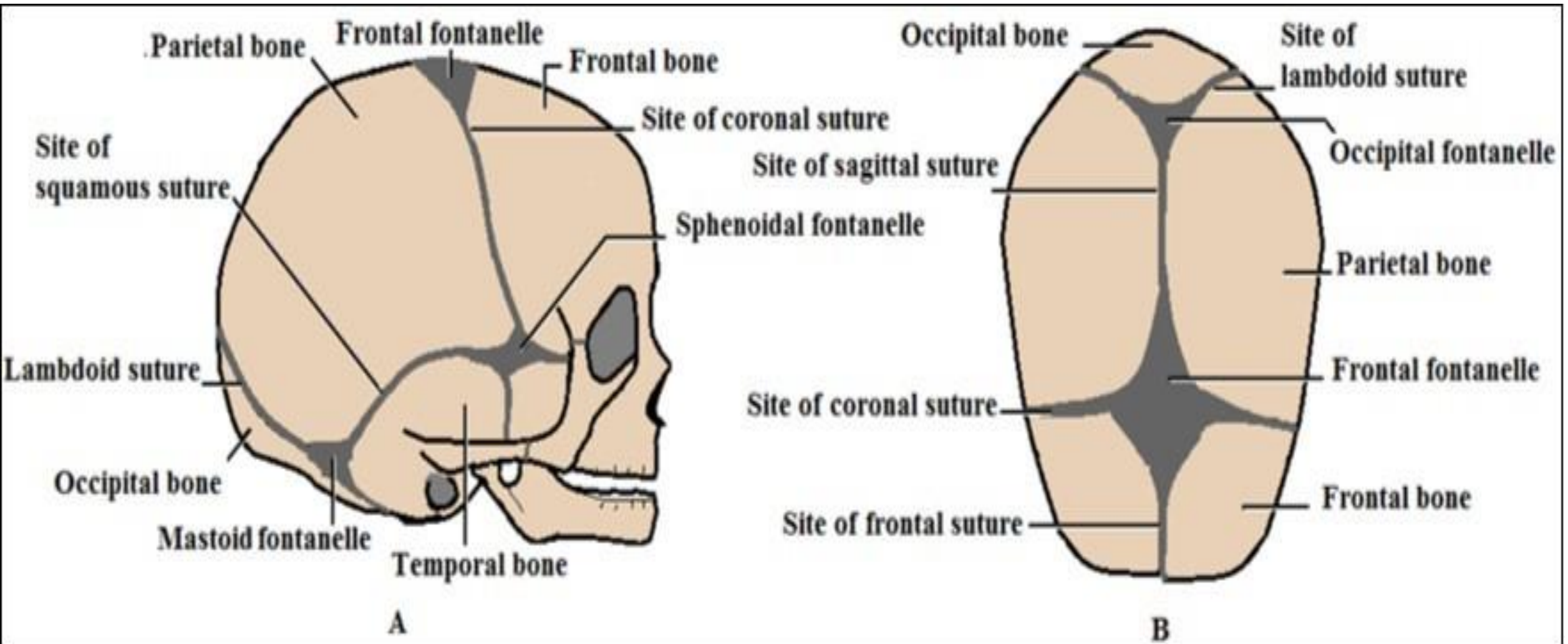


Beauchene's Skull

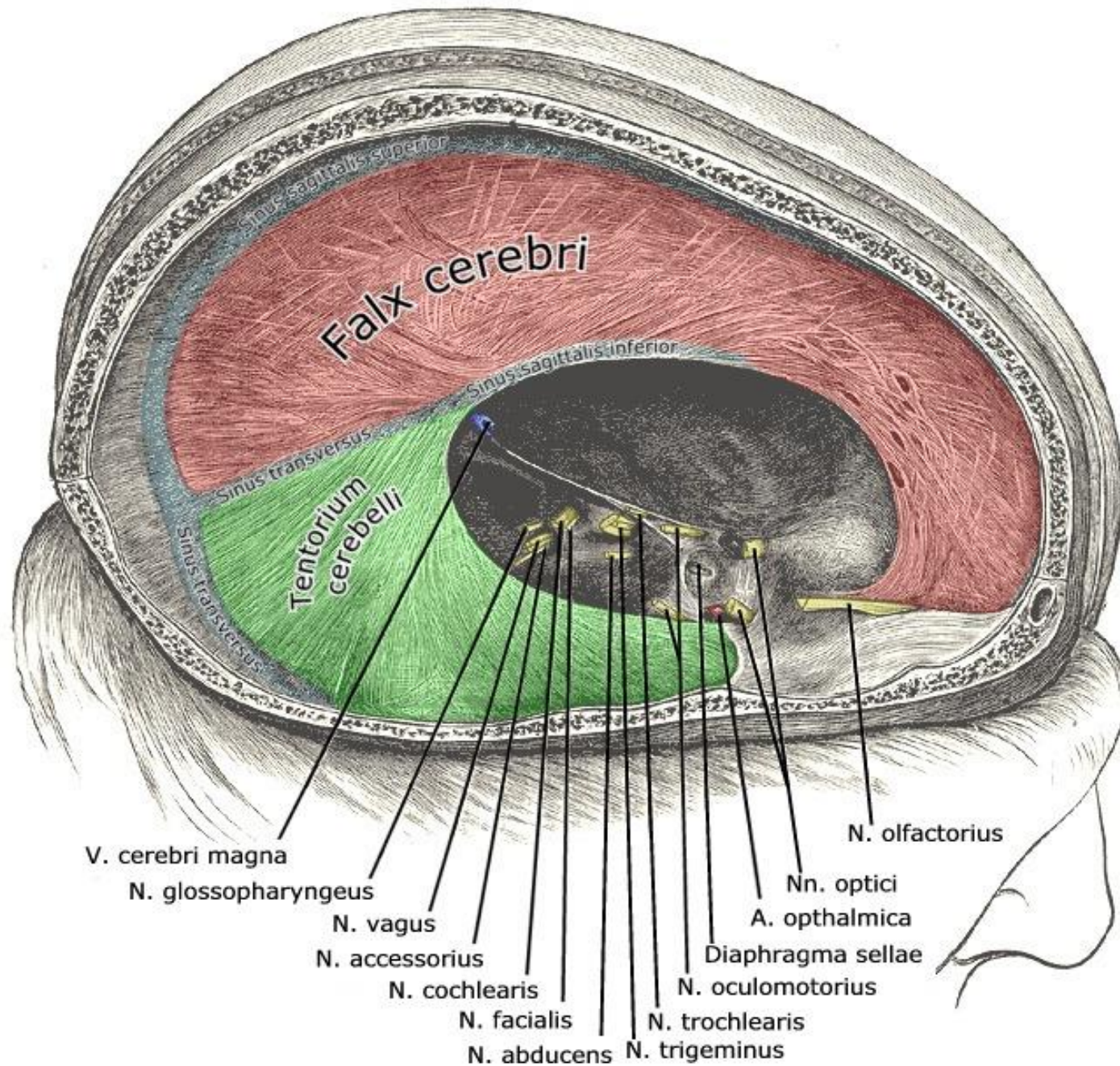


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A Child's Cranium







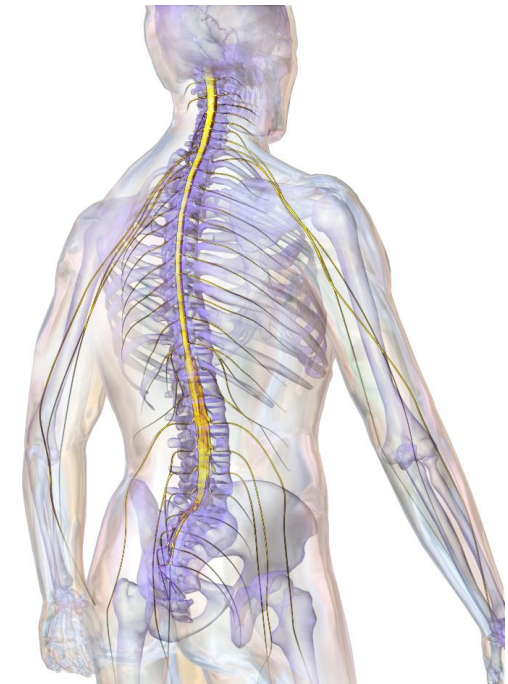
Spinal Attachments of the Dura

[Technique Principles](#)

Subject: Osteopathic Medicine

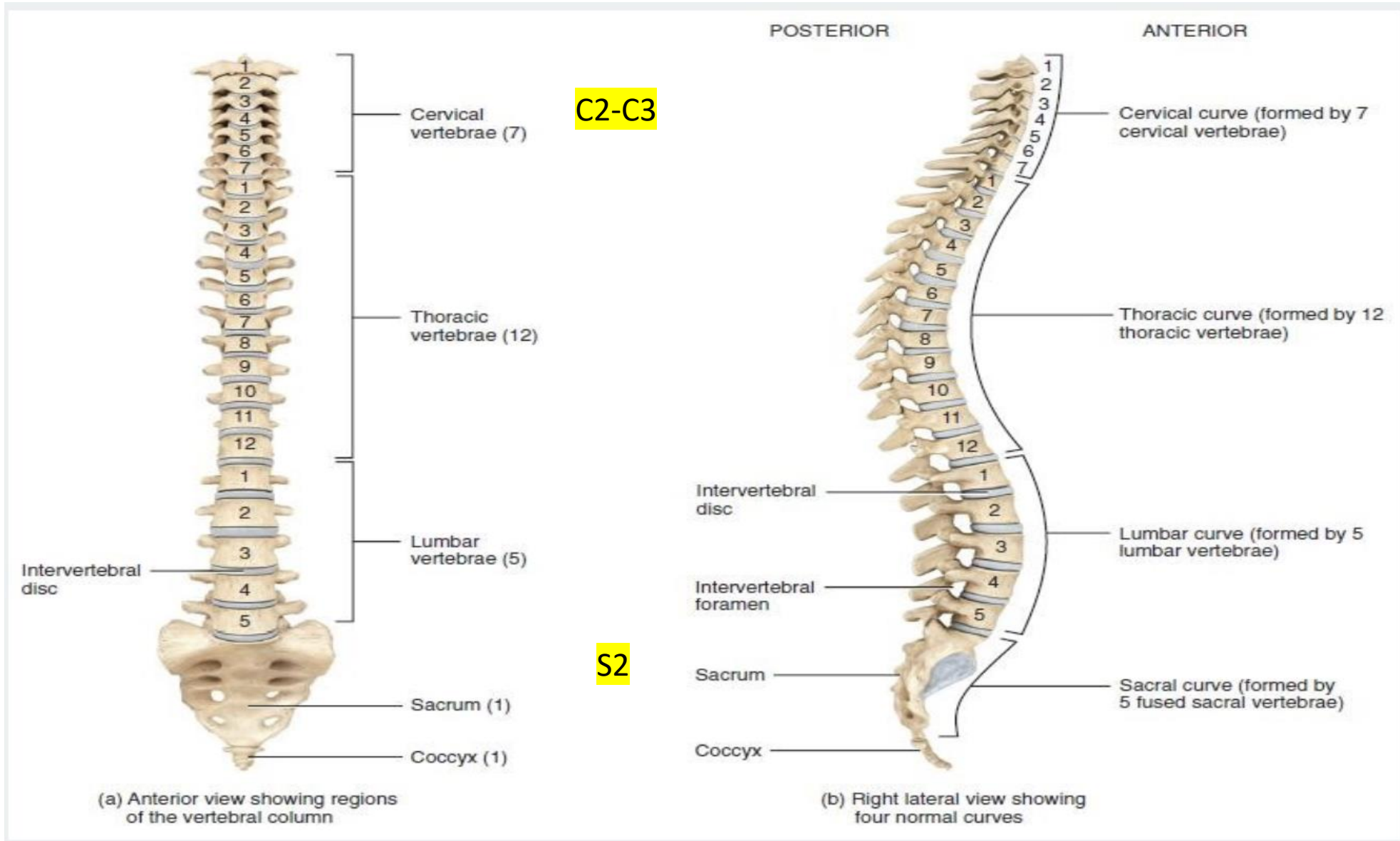
Content: Texts

Attachments of the falx cerebri, the falx cerebelli, the tentorium cerebelli, and the **spinal dura** are collectively known as the **reciprocal tension membrane (RTM)**. These **attachments** and their connections from the **dural tube at the foramen magnum to the second sacral segment** is known as the core link , which coordinates...
Atlas of Osteopathic Techniques, 4e > Osteopathic Cranial Manipulative Medicine



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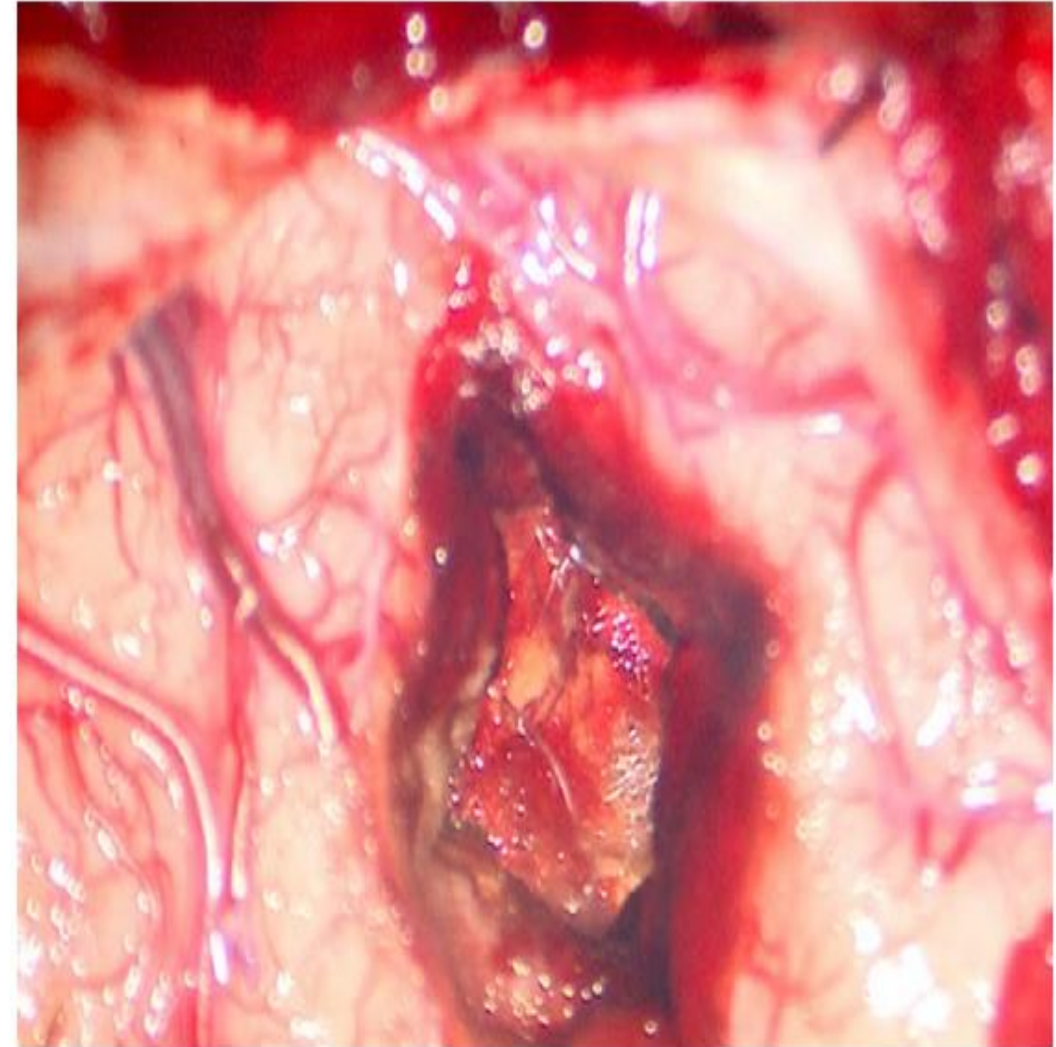
DURAL ATTACHMENT TO THE SPINE



Arterial Pulsation of the Brain

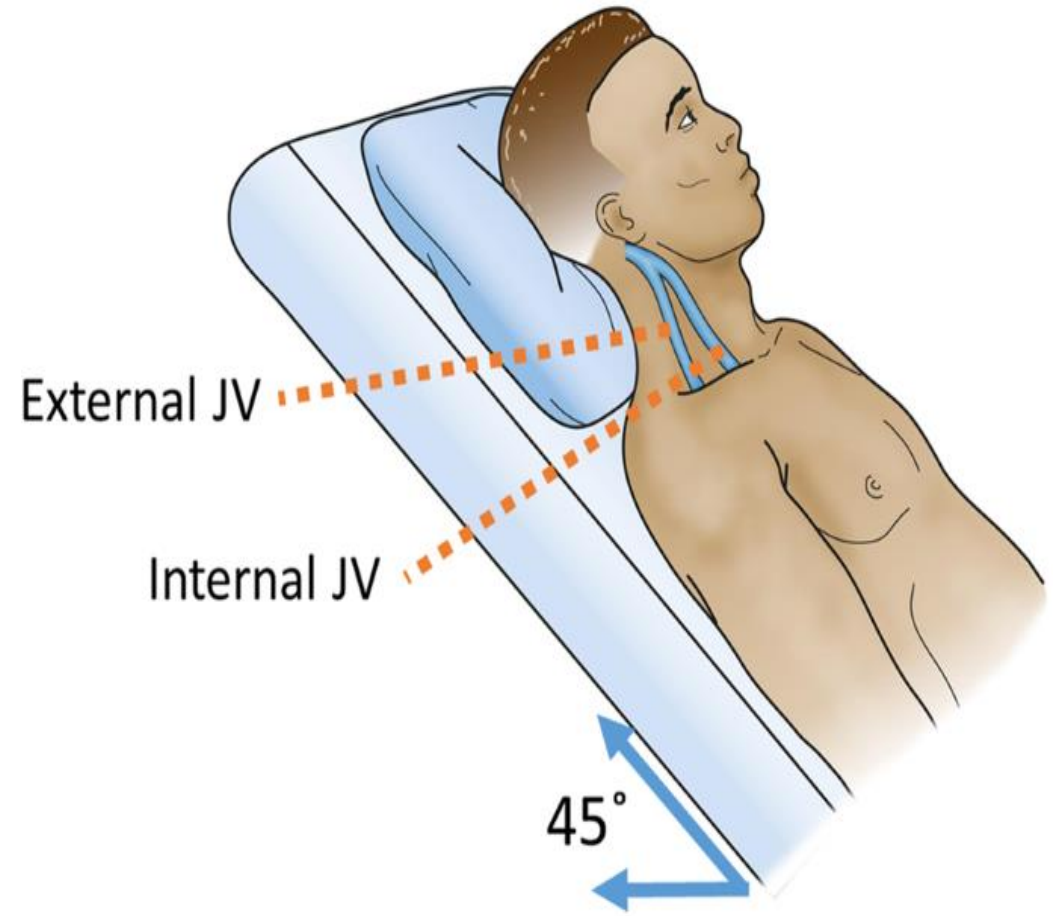
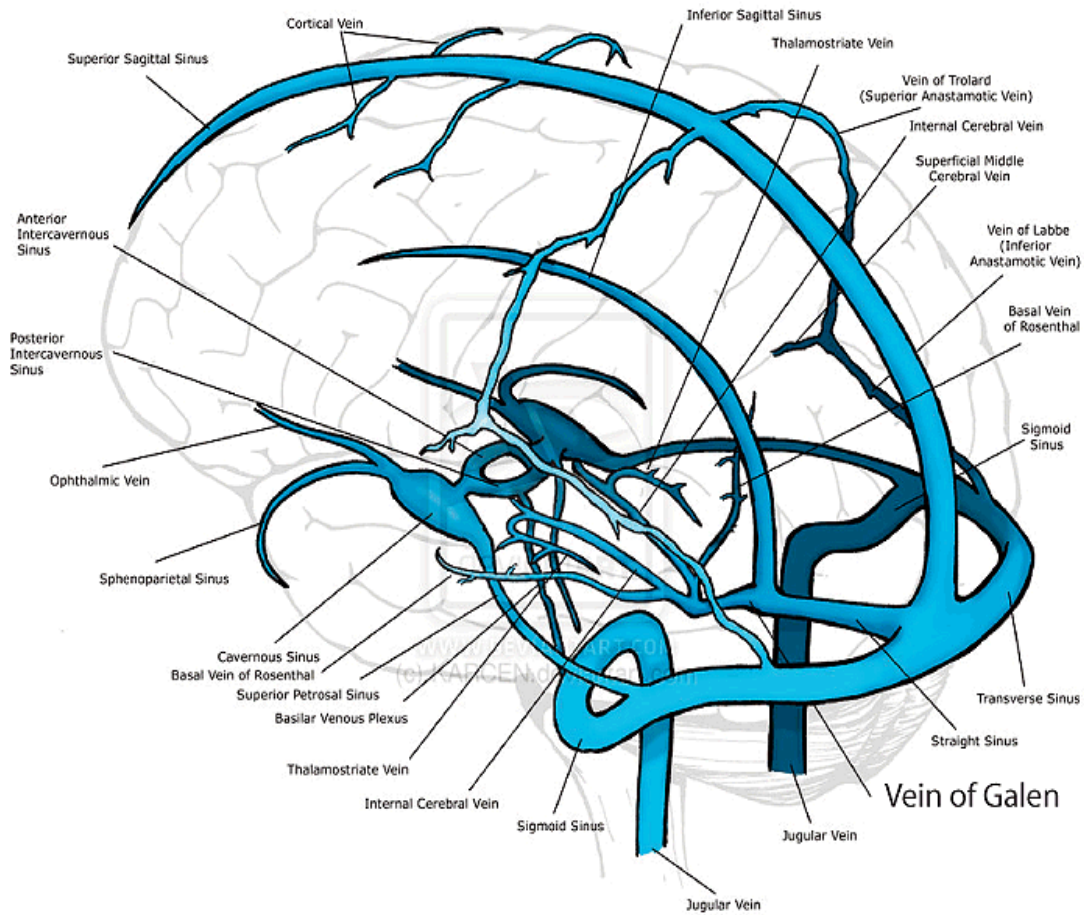


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Venous Pressure in the Brain

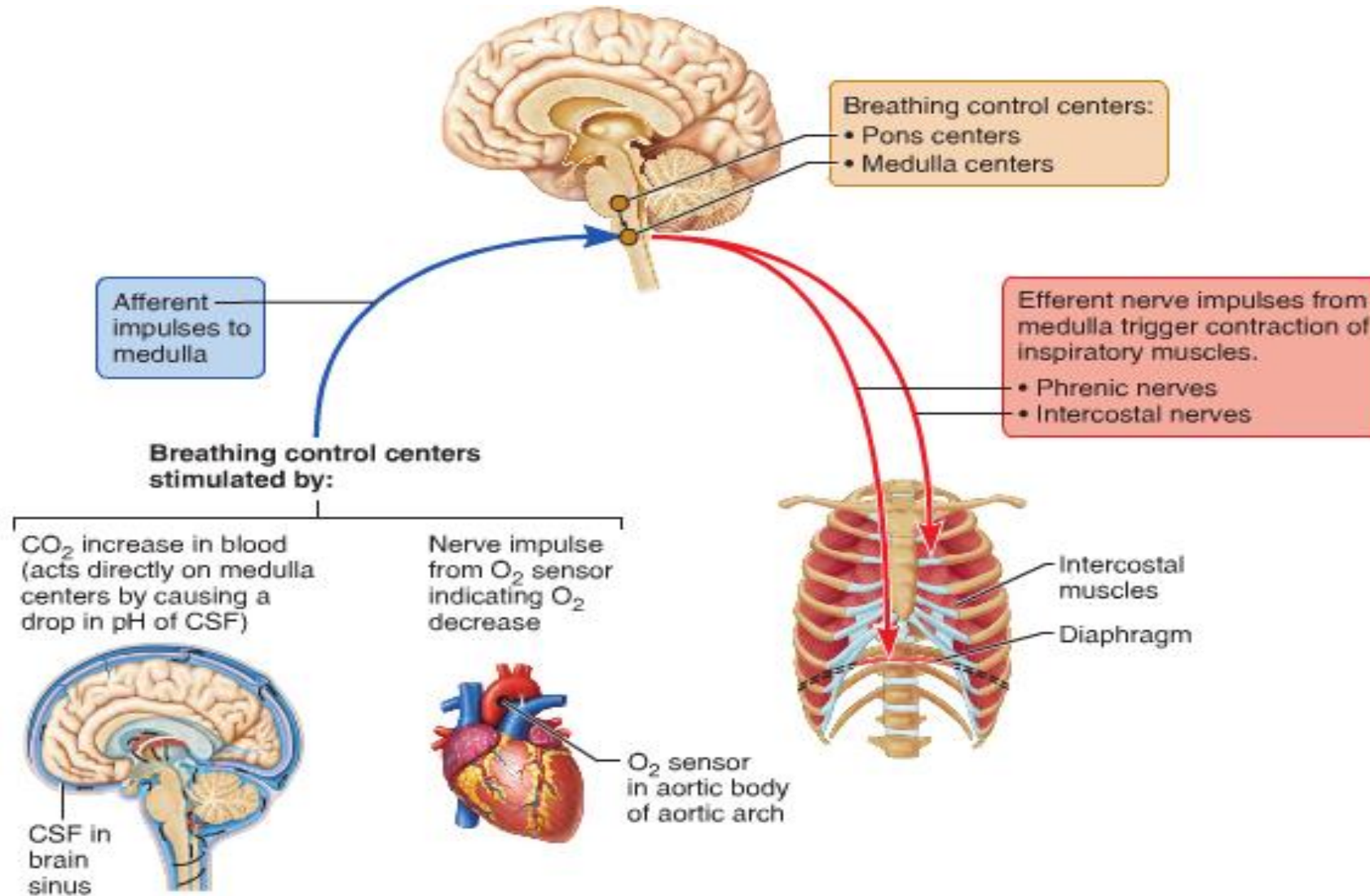


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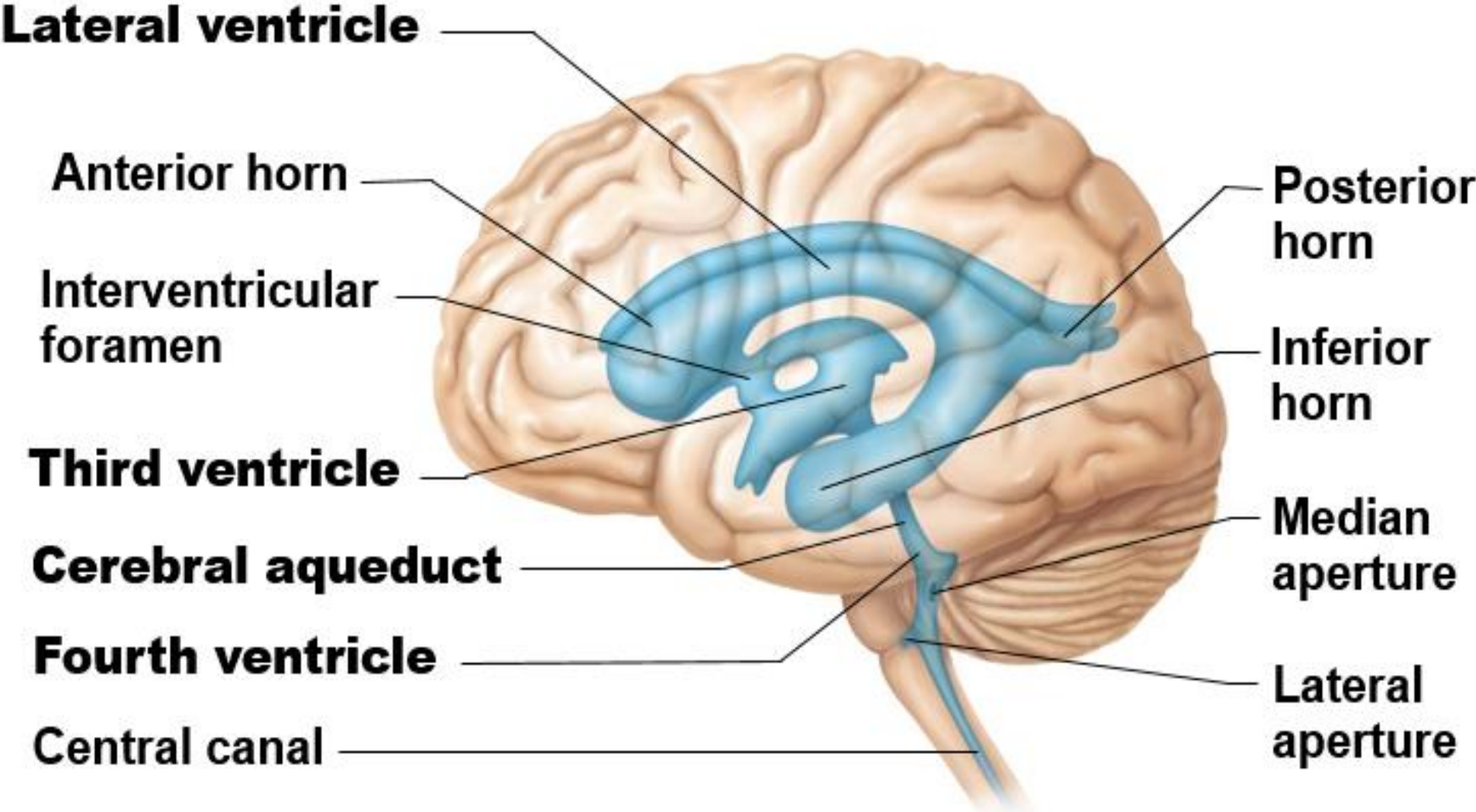
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Respiration and Intracranial Pressure

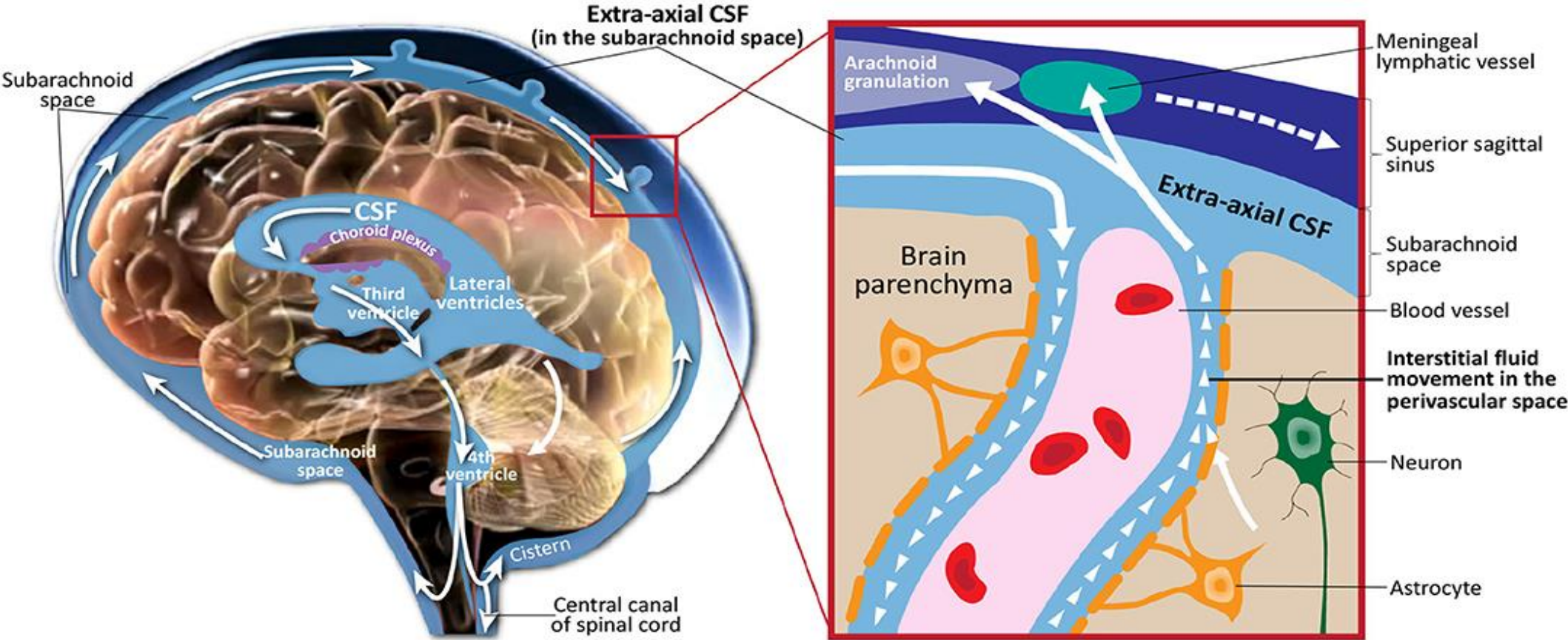


Cerebro-Spinal Flow and Pressure



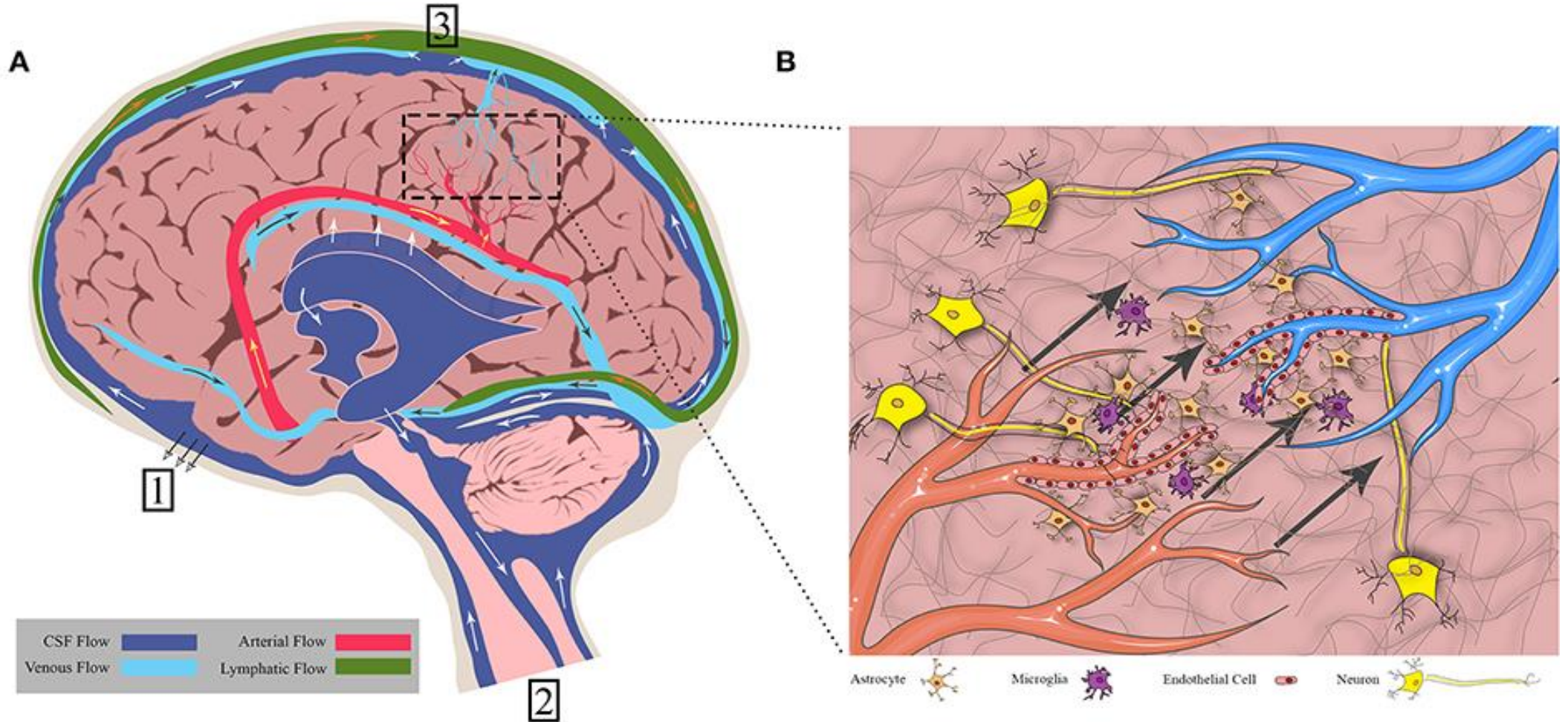
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Cerebro Spinal Fluid Flow and Pressure

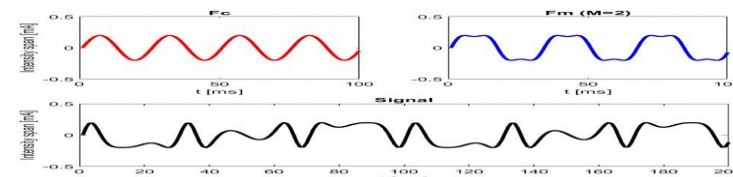


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Cerebral Rhythmic Index



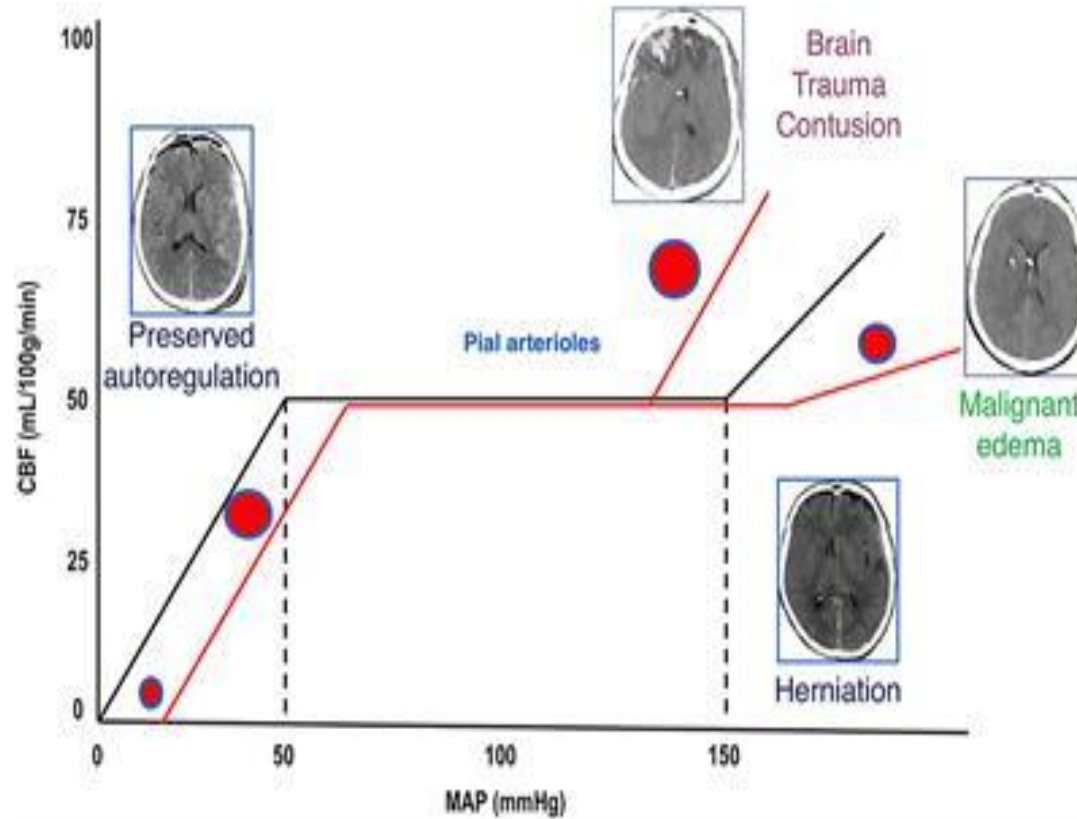
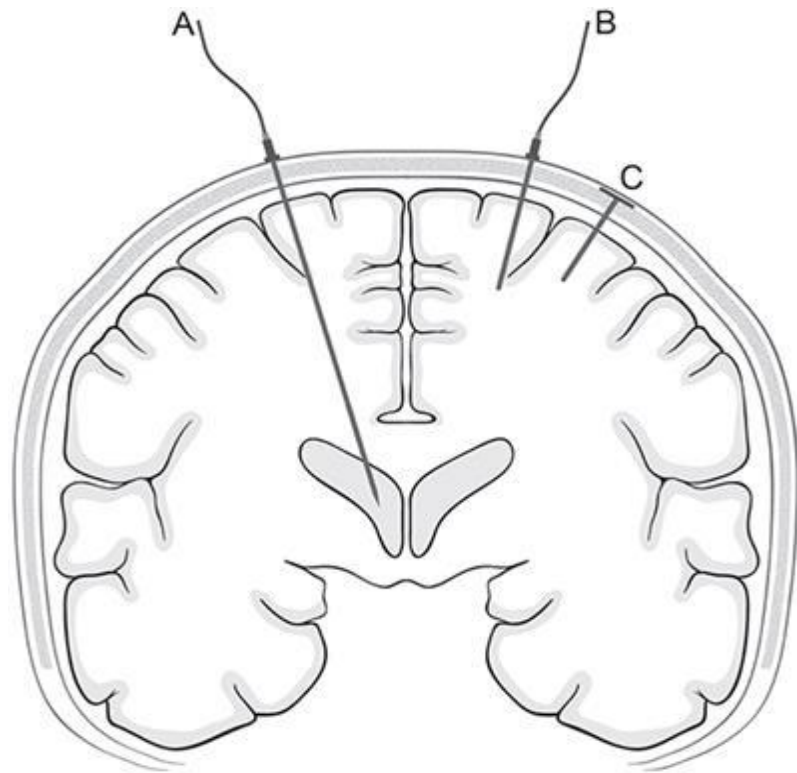
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INTRACRANIAL PRESSURE

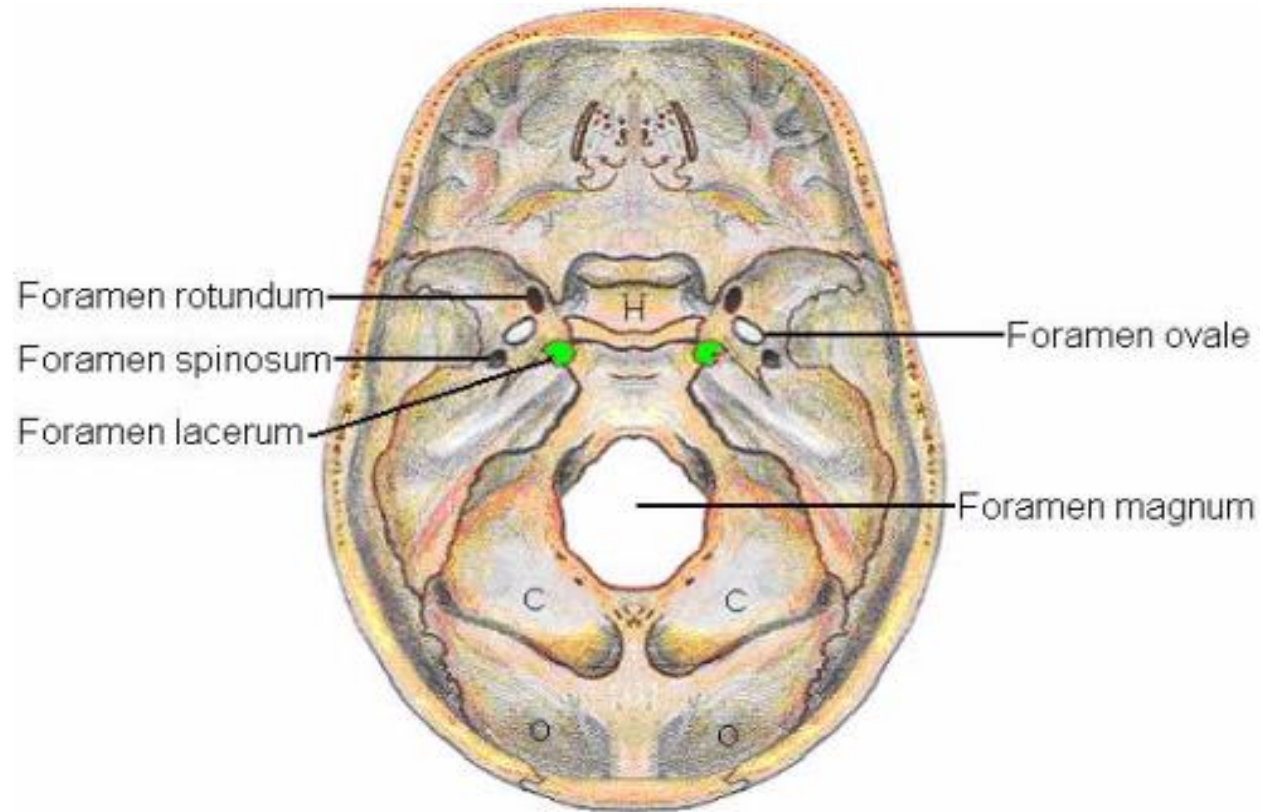
$$\text{ICP} = \text{BRAIN MASS} + \text{BLOOD VOLUME} + \text{CSF VOLUME}$$



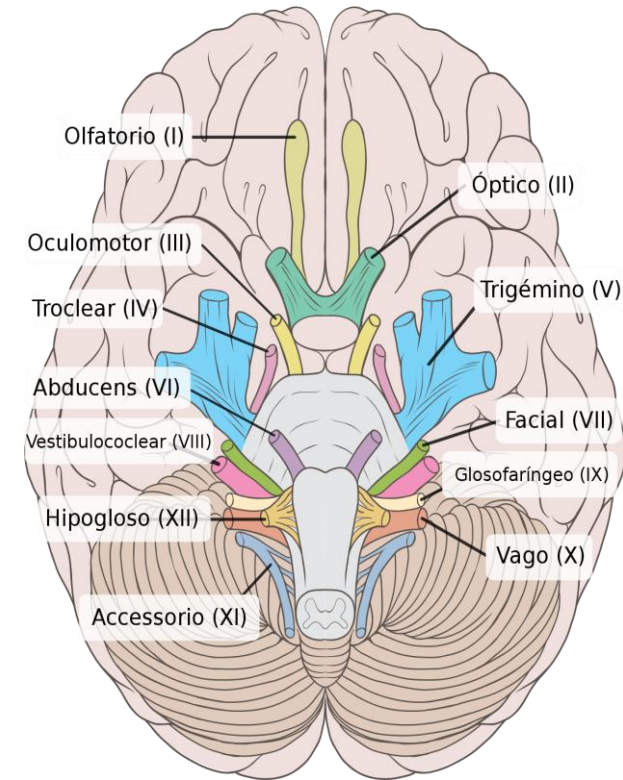
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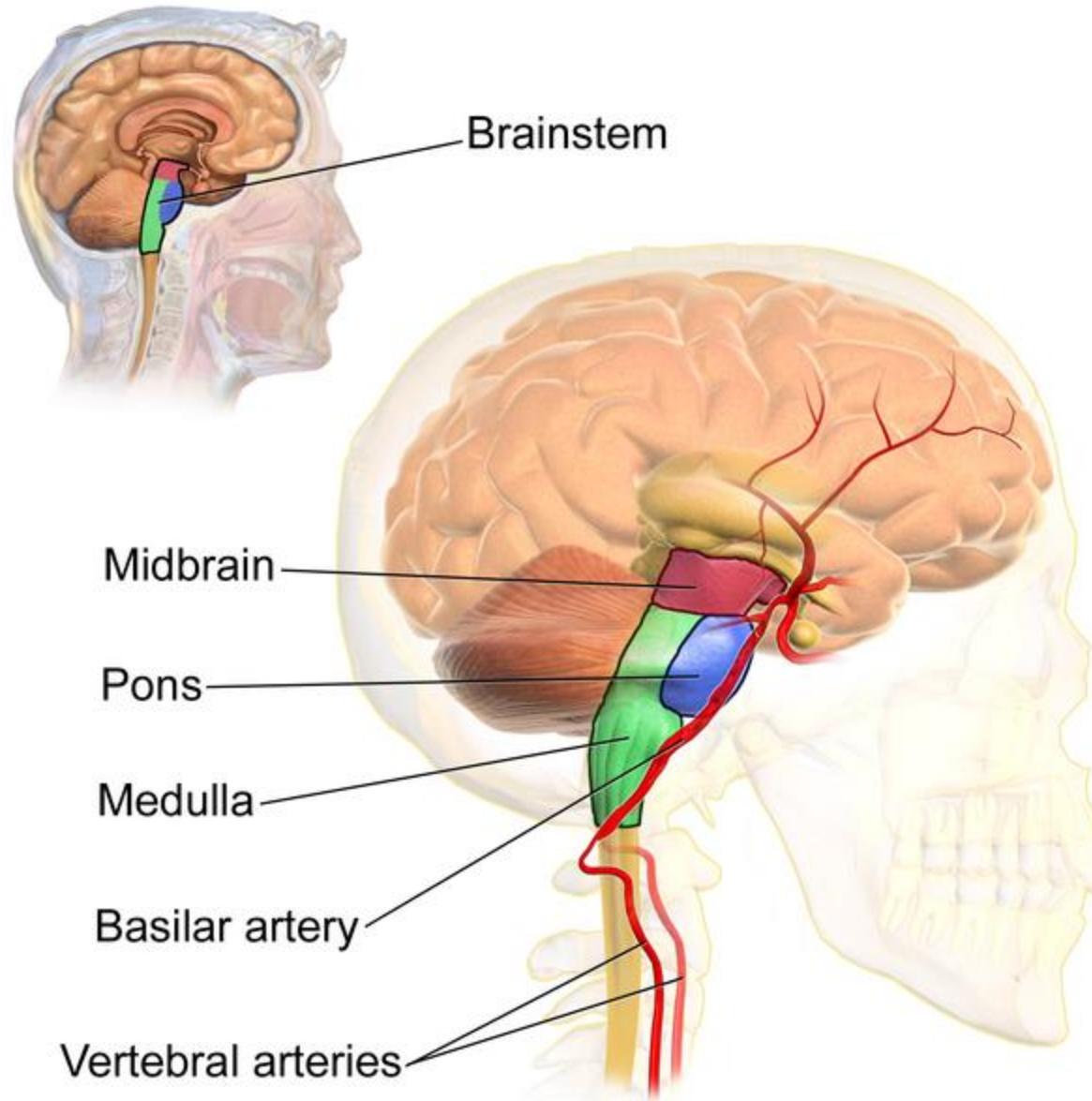
Cranial Base, Brainstem and Cranial Nerves



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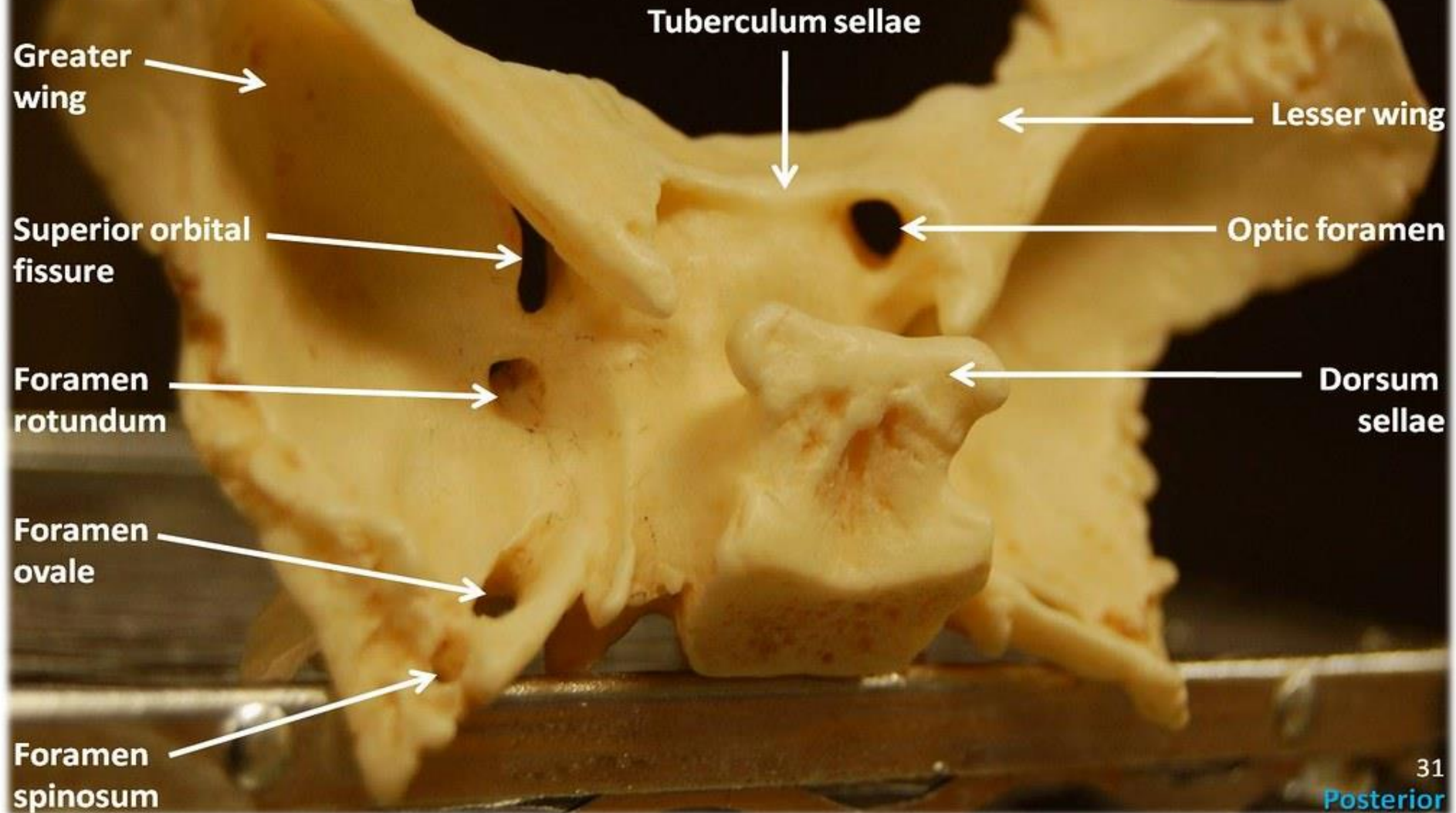
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Anterior

Sphenoid bone.

Superior view



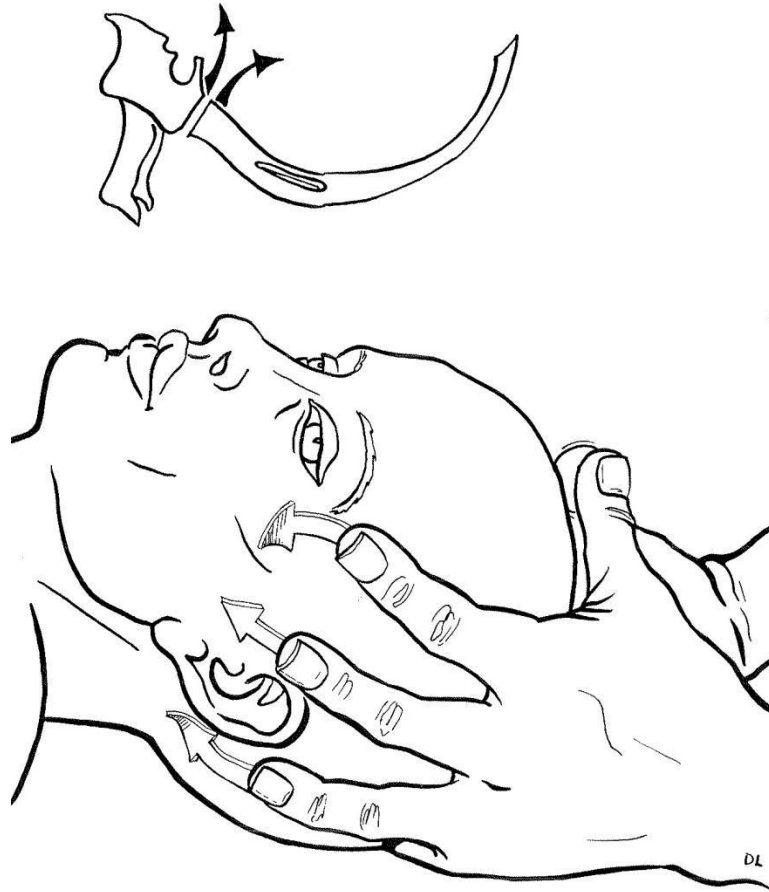
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Posterior

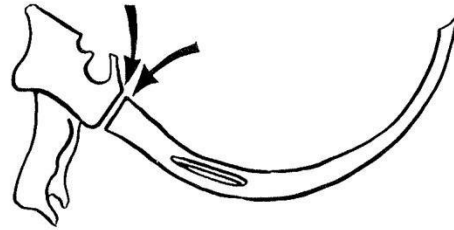




VAULT HOLD FLEXION



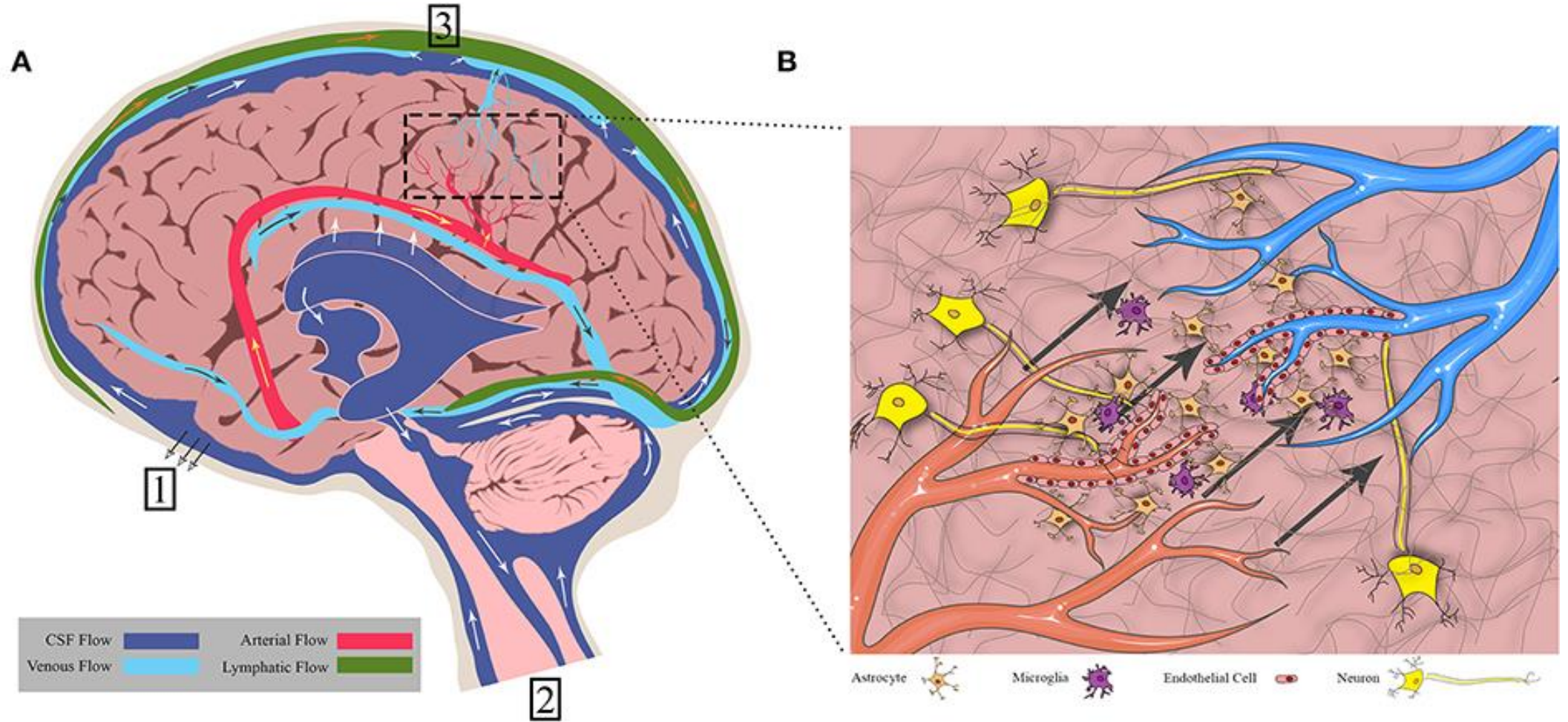
VAULT HOLD EXTENSION



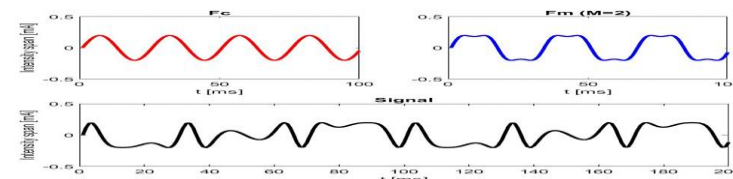
OCCIPITAL HOLD (CRADLE)



Cerebral Rhythmic Index

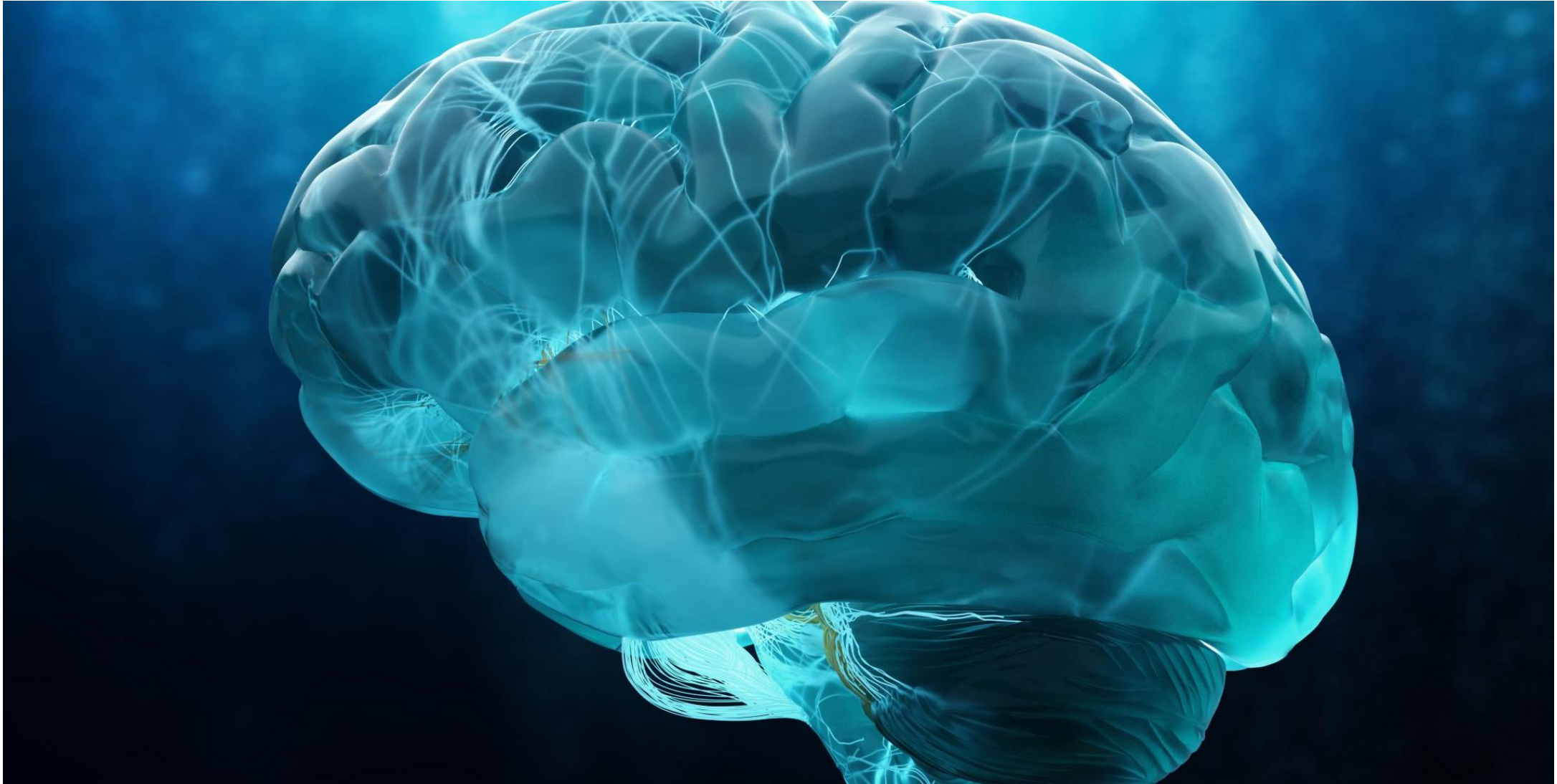


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IT MAKES SENSE TO DO OSTEOPATHIC CRANIAL MANIPULATION (OCMM)?



OCMM and NEUROSCIENCE

QUESTIONS REMAIN:

- 1) Given Migraine Headaches as an indication for OCMM, how might we prove OCMM's efficacy on the basis of Neuroscience.
- 2) How about Trigeminal Neuralgia?
- 3) Other listed indications?
- 4) How might the Autonomic Nervous System be involved in OCMM?
- 5) Could Relaxation or Meditative influence be involved? How might we prove or disprove this?

What other questions might you have?

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MEDICINE**

