

# Anxiety Disorders and OMM

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# Disclosures

- ◆ AOBNP- Member
- ◆ RVU- Faculty
- ◆ No Industry or Financial Disclosures
- ◆ Anatomical Images: Thieme Collection, 3D Brain App

# Objectives

- ◆ 1. Review literature for manual medicine and anxiety disorders
- ◆ 2. Review anatomy and physiology for anxiety disorders in light of current literature
- ◆ 3. Discuss proposed OMM interventions based on objectives 1 and 2



Literature Review:  
Manual Medicine

# Search Terms

- ◆ manipulation, manual, medicine, chiropractic, osteopathic, osteopathy, manipulative, anxiety, generalized anxiety disorder, obsessive compulsive disorder, panic disorder, social anxiety disorder, spinal, cranial, massage, craniosacral, therapeutic touch

# Relevant Citations: Condition

- ◆ Anxiety: 5
- ◆ Generalized Anxiety Disorder: 1
- ◆ Obsessive Compulsive Disorder: 7
- ◆ Social Anxiety Disorder: 3
- ◆ Panic Disorder and Phobias: 0

# Relevant Citations: Modalities

- ◆ Massage: 16
- ◆ Therapeutic Touch: 6
- ◆ OMT: 1
- ◆ Chiropractic: 1
- ◆ Craniosacral: 1

# Massage

- ◆ 14 Studies: “Anxiety” and comorbid conditions (breast cancer, liver disease, cataract surgery, hysterectomy, CABG, cancer, fibromyalgia, stroke)
- ◆ 2 Studies: Generalized Anxiety Disorder
- ◆ All found varying degrees of benefit

Edge, Compl Ther Nurse & Midw, 2003. Imanishi, eCAM 2009. Ernst, EBN, 2000. Xu, Jrn Trad Ch Med, 2008  
Kim, JCRS, 2001. Kim, Kor Med, 2000. Bagheri, Com Th Clin Pr, 2014. Billhult, Com Th Clin Pr, 2009.  
Wilkinson, Jnl Cl Onc, 2007. Garner, Aus NZ Jrn Psy, 2008. Rho, Int Jrn Neusc, 2006. Sherman, Dep & Anx,  
2010. Castro, EB Comp Alt Med, 2011. Shulman, Jrn Ap Beh Sc, 1996. Shafiei, Ir Jrn Surg. 2013. Mok, Compl  
Ther Nurse & Midw, 2004



# Therapeutic Touch

- ◆ 6 Studies: Population/Comorbid condition focus (hospitalized, nursing home, elderly)
- ◆ Cochrane Review 2007
  - ◆ No evidence of benefit in anxiety

# OMT

- ◆ General Osteopathic Technique, Asymptomatic Female Students
  - ◆ Treatment (17), Control (17)
  - ◆ Body satisfaction, Global self perception, Anxiety
  - ◆ Measures: QSCPGS, State-Trait Anxiety Inventory

# OMT

- ◆ General Osteopathic Technique
  - ◆ Full body protocol treatment (Littlejohn)
  - ◆ Single 30 min session vs Rest control
- ◆ Significant greater reduction of anxiety found for treatment group

# Chiropractic

- ◆ Chiropractic manipulation to T1-5
- ◆ Patients with HTN
- ◆ Reduced BP
- ◆ No effect on state anxiety

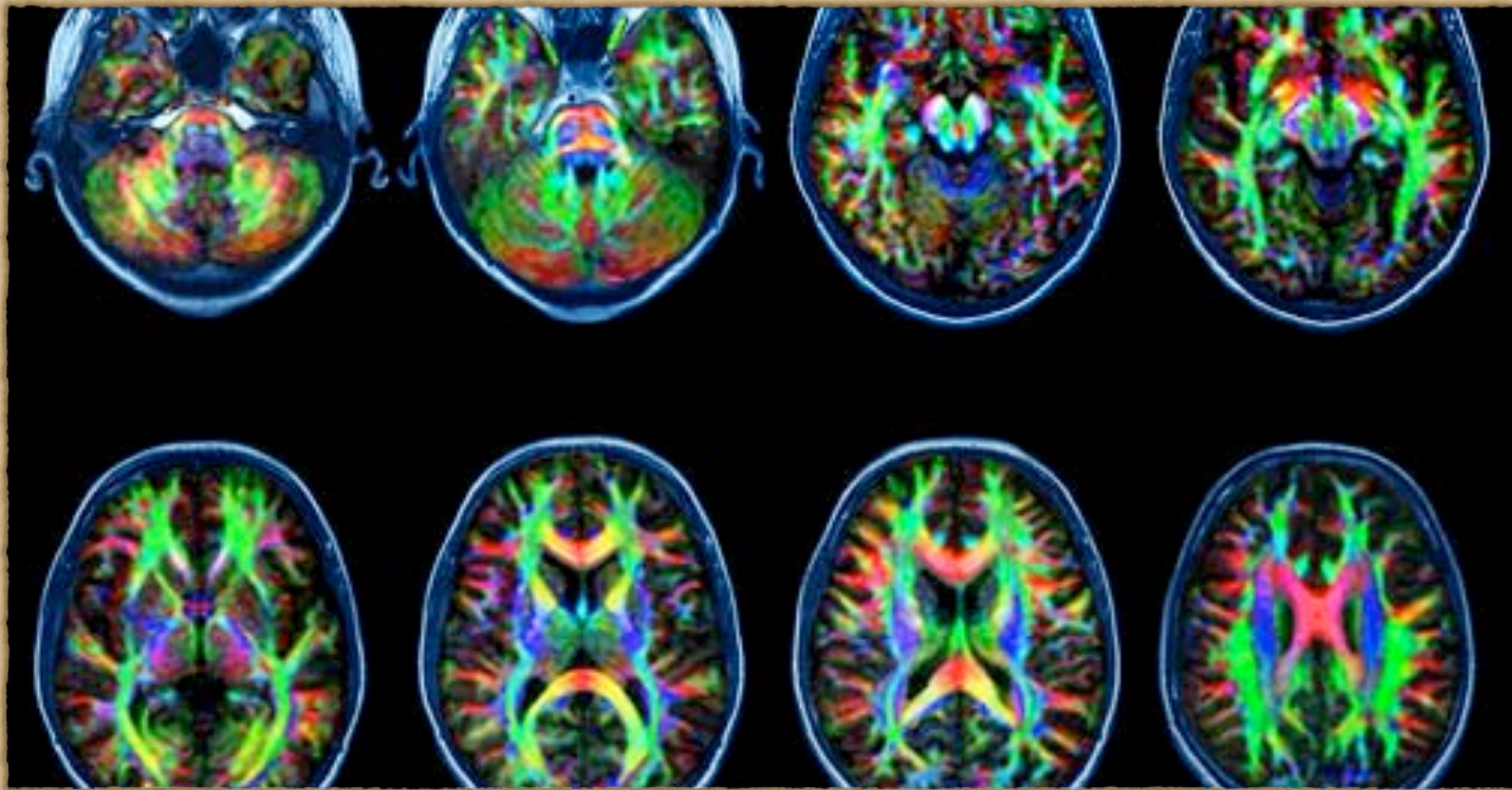
Yates, Jrn Man Phys Ther, 1988.

# Craniosacral

- ◆ European Manual Medicine Physical Therapy
- ◆ Craniosacral therapy procedures were Prone: still point (occipital), compression-decompression of temporomandibular joint, decompression of temporal fascia, compression-decompression of sphenobasilar joint, parietal lift, frontal lift, scapular waist release and pelvic diaphragm release
- ◆ 2x/wk for 25 wks Intervention
- ◆ 35 wks post treatment intervention improvement in state anxiety

# Literature Summary

- ◆ Most Evidence: Massage Therapy beneficial for “anxiety” and GAD
- ◆ OMT: Single small controlled study found 1 session of GOT beneficial for anxiety in asymptomatic female students



Literature Review:  
Neuroanatomical & Neurophysiological

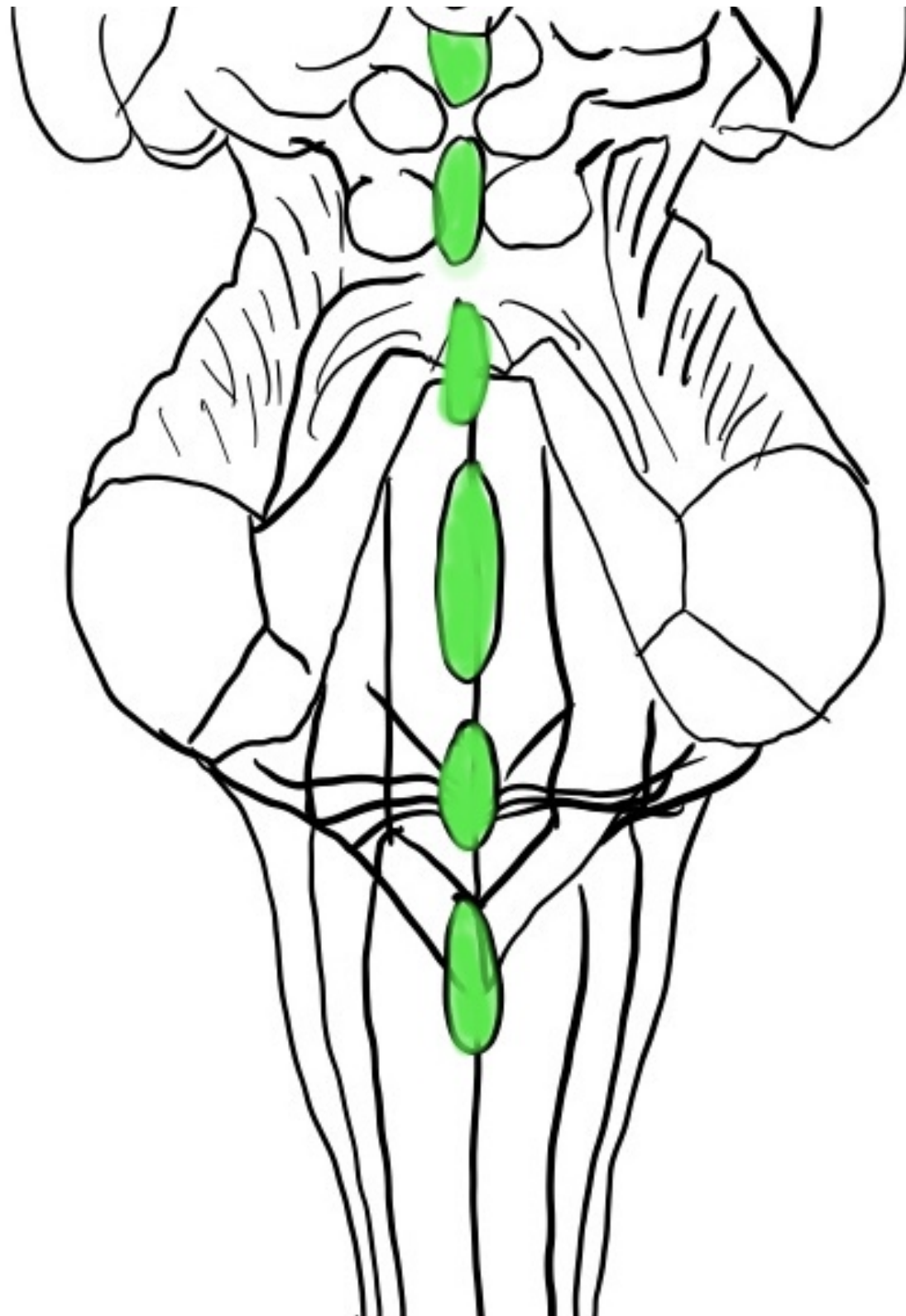
# Prototypical Anxiety Disorders

- ◆ Generalized Anxiety Disorder (1)
- ◆ Obsessive Compulsive Disorder (4)
- ◆ Panic Disorder (0)
- ◆ Specific Phobia (1)
- ◆ Social Anxiety Disorder (3)
- ◆ "Anxiety" (3)



# GAD

- ◆ Increased Activity of Dorsal Raphe Nucleus

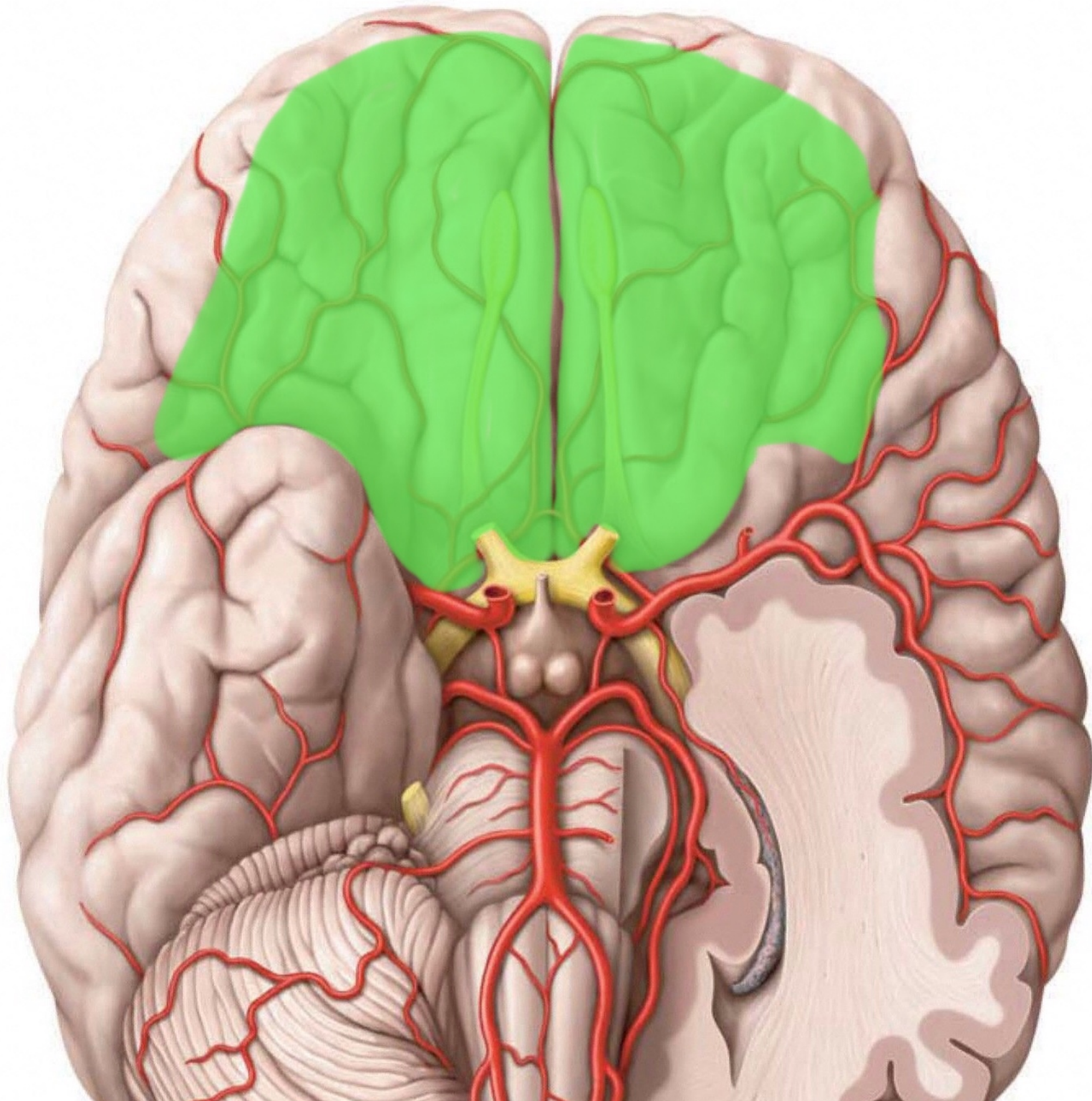


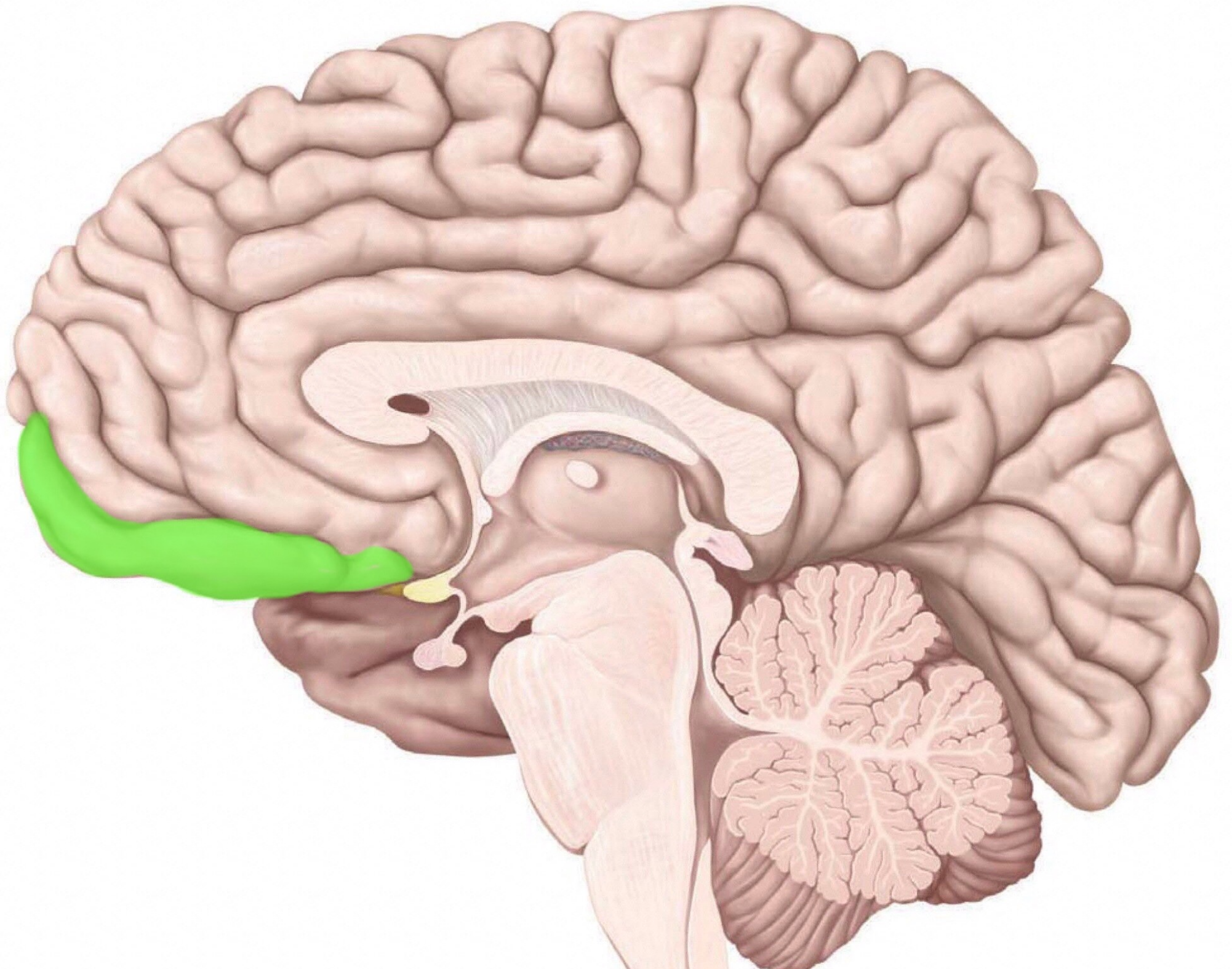
# OCD

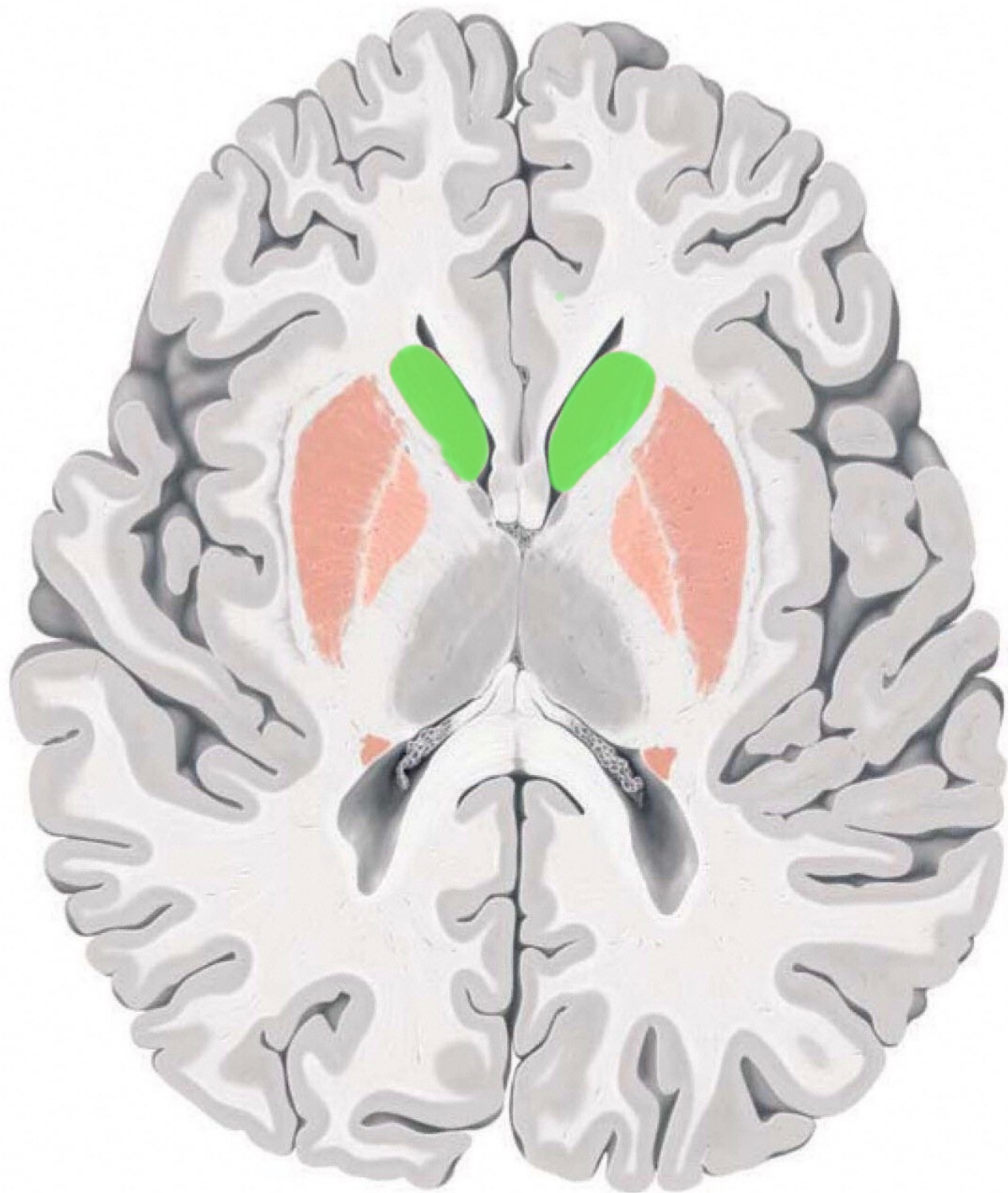
- ◆ Decreased Activity Orbitofrontal Cortex  
(And reduced connectivity with amygdala)
- ◆ Decreased CBF vs Hyperactivity Caudate
- ◆ Decreased CBF Thalamus
- ◆ Decreased Activity & Volume Dorsolateral Prefrontal Cortex

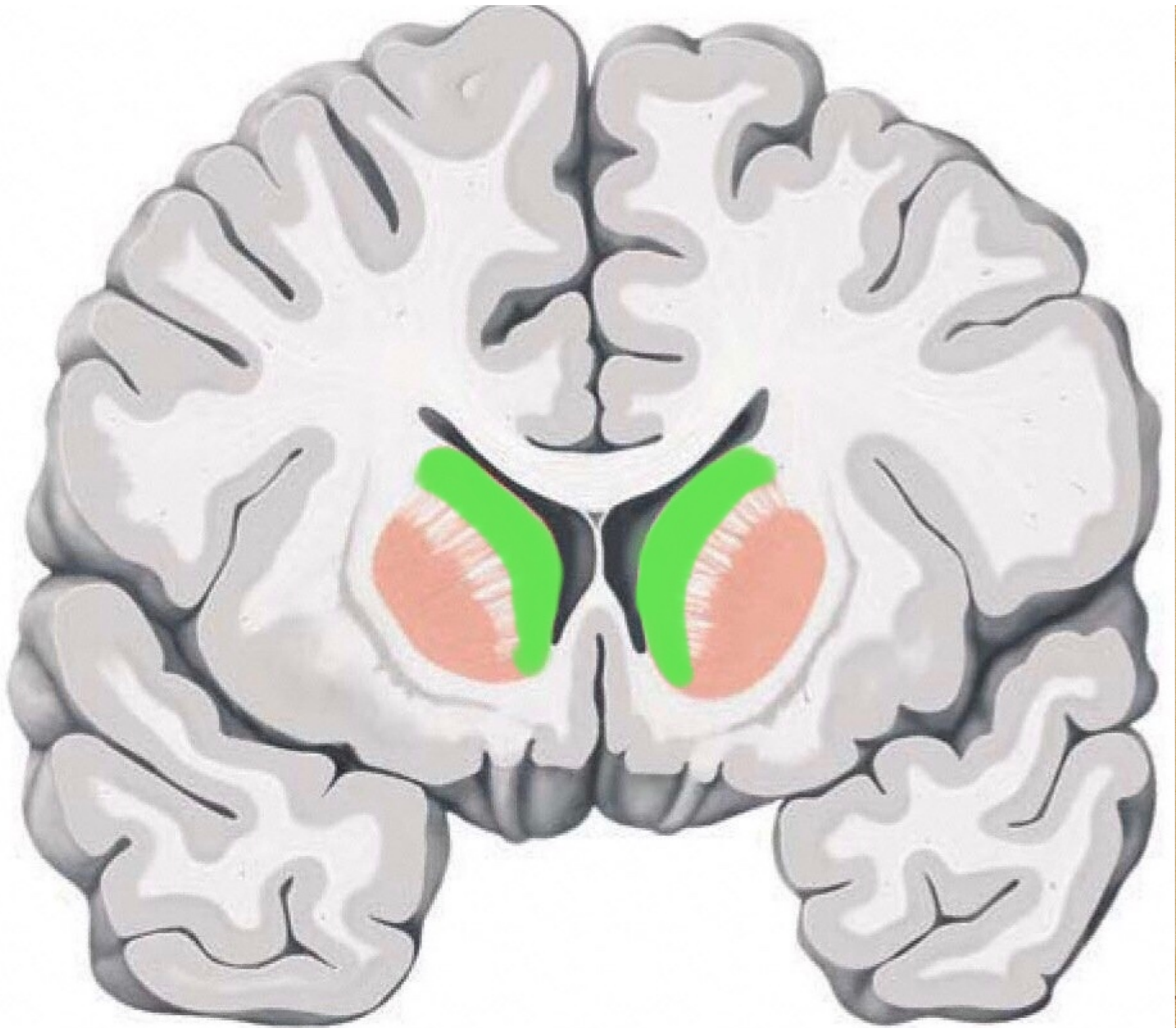
M Milad, Ann NY Acad Sc, 2007. J Lucey, Brit Jrn Psy, 1995.

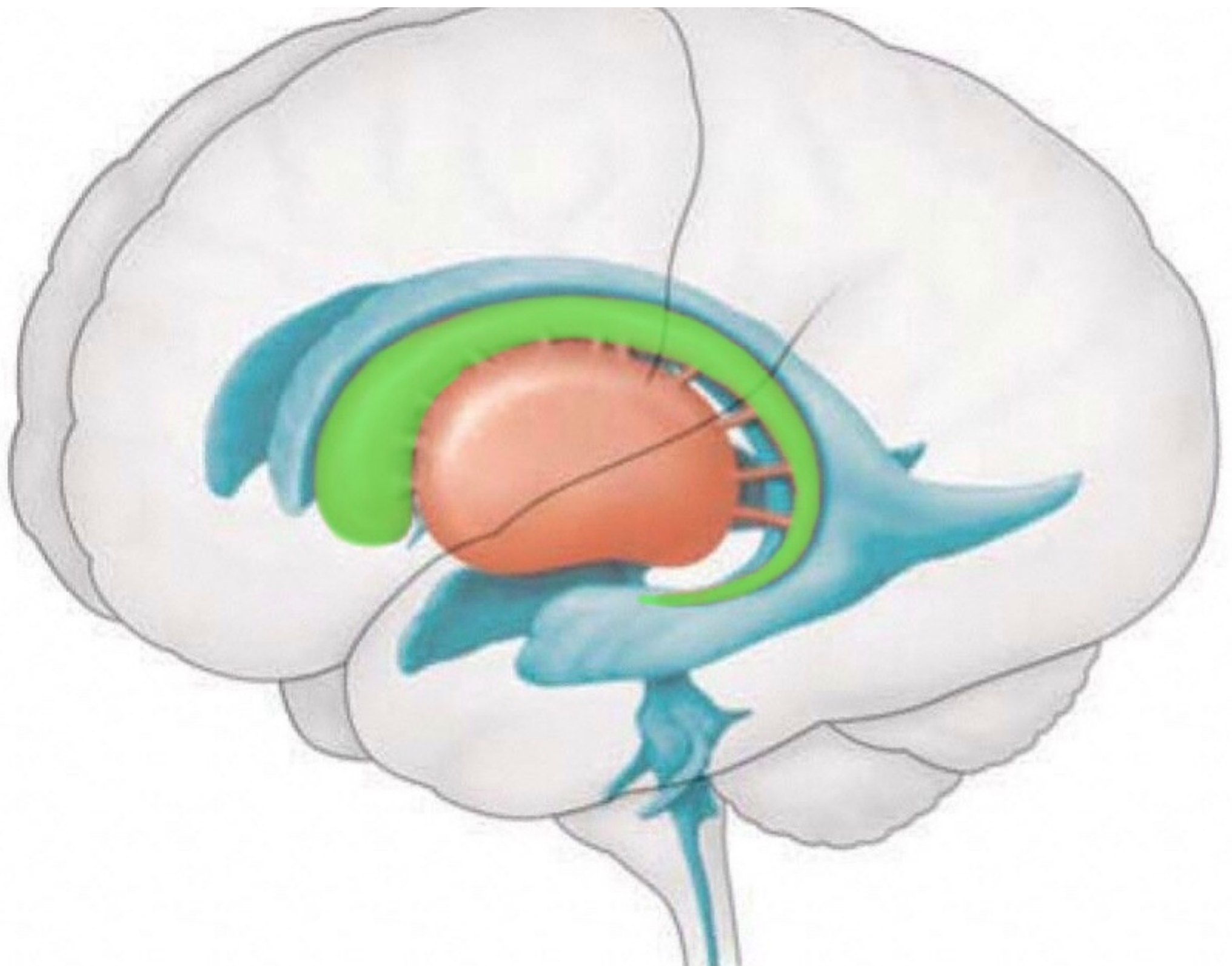
S Kuhn, Jrn Aff Dis, 2011. D Evans, Br & Cog, 2004.



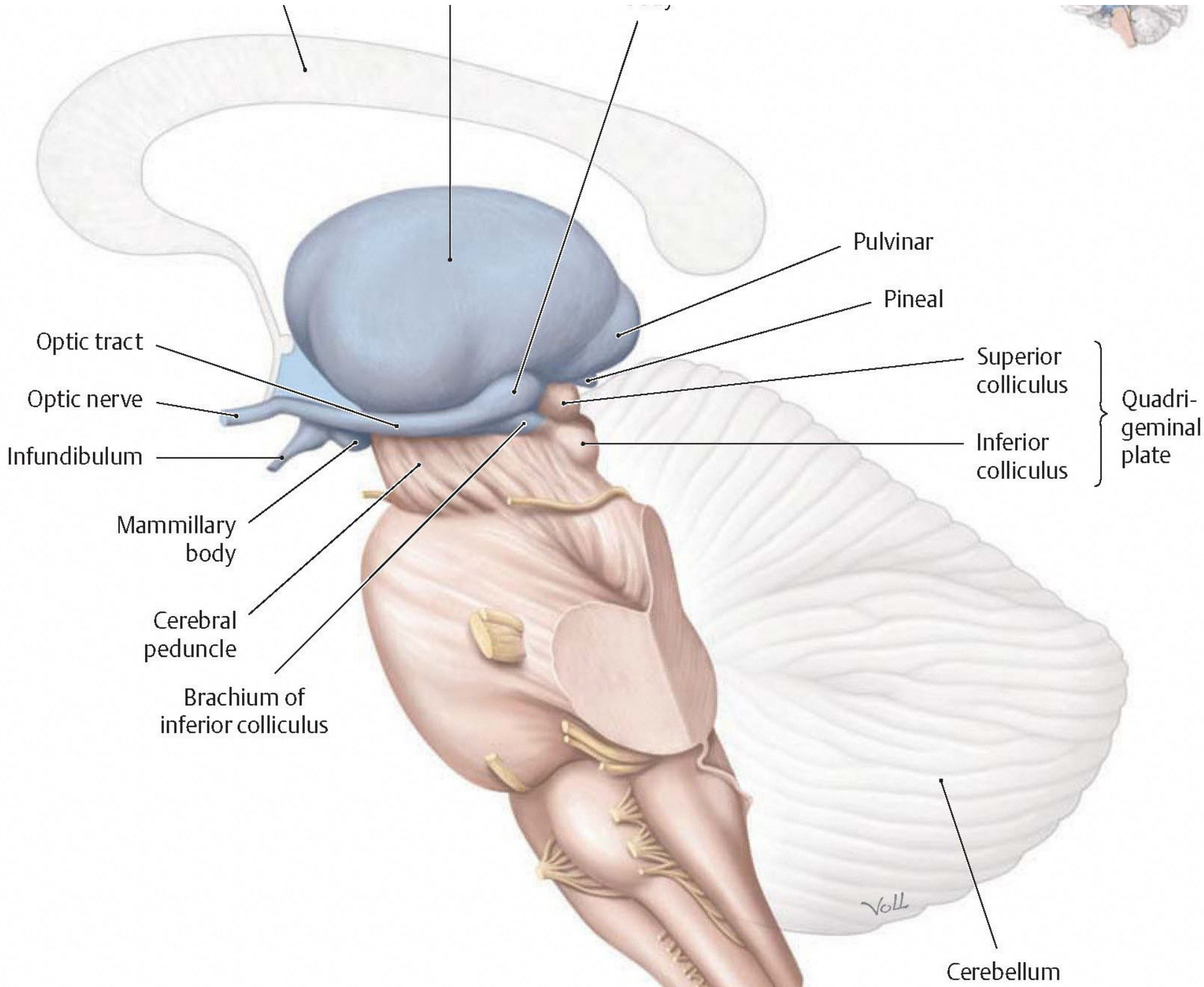


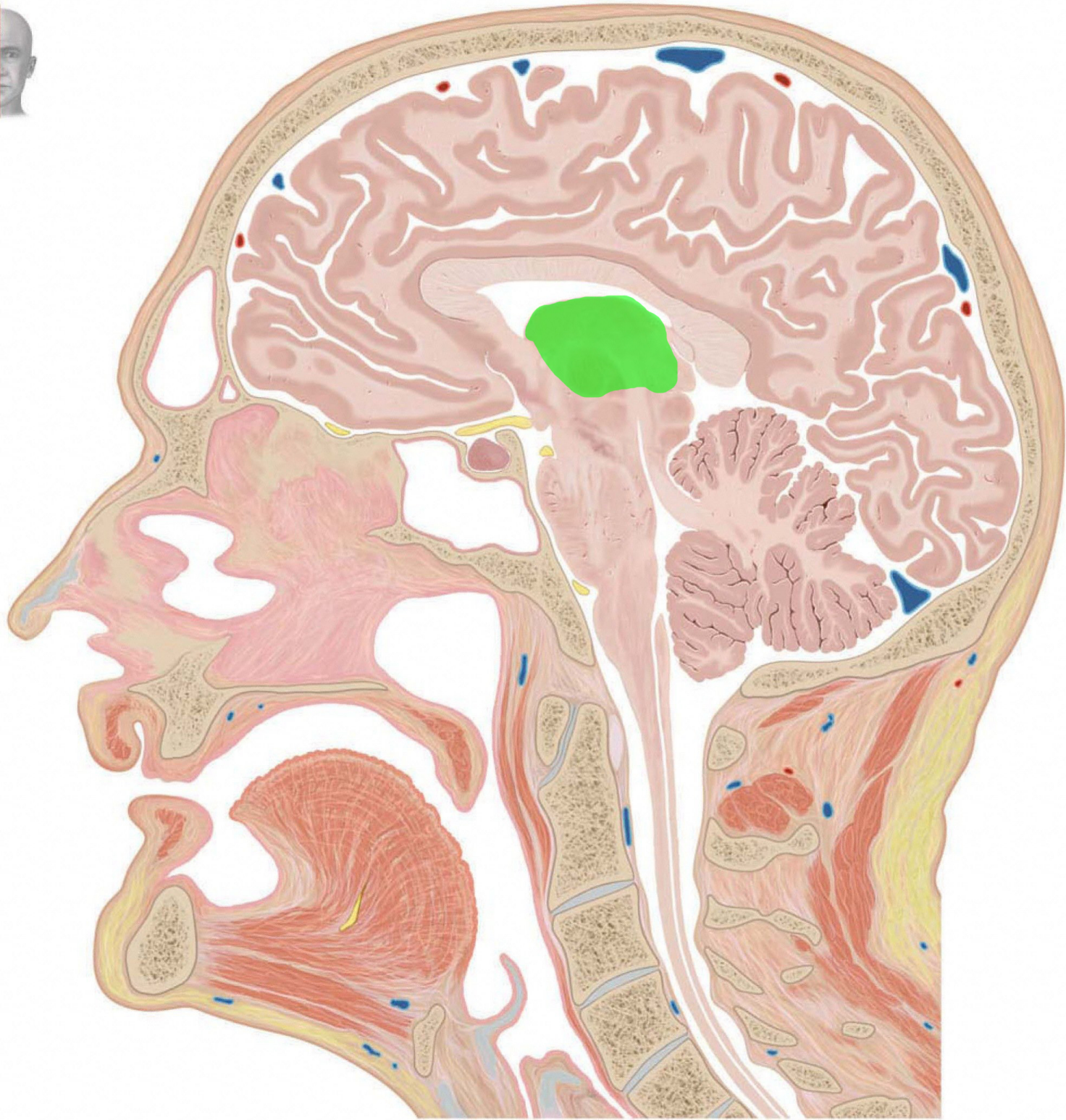


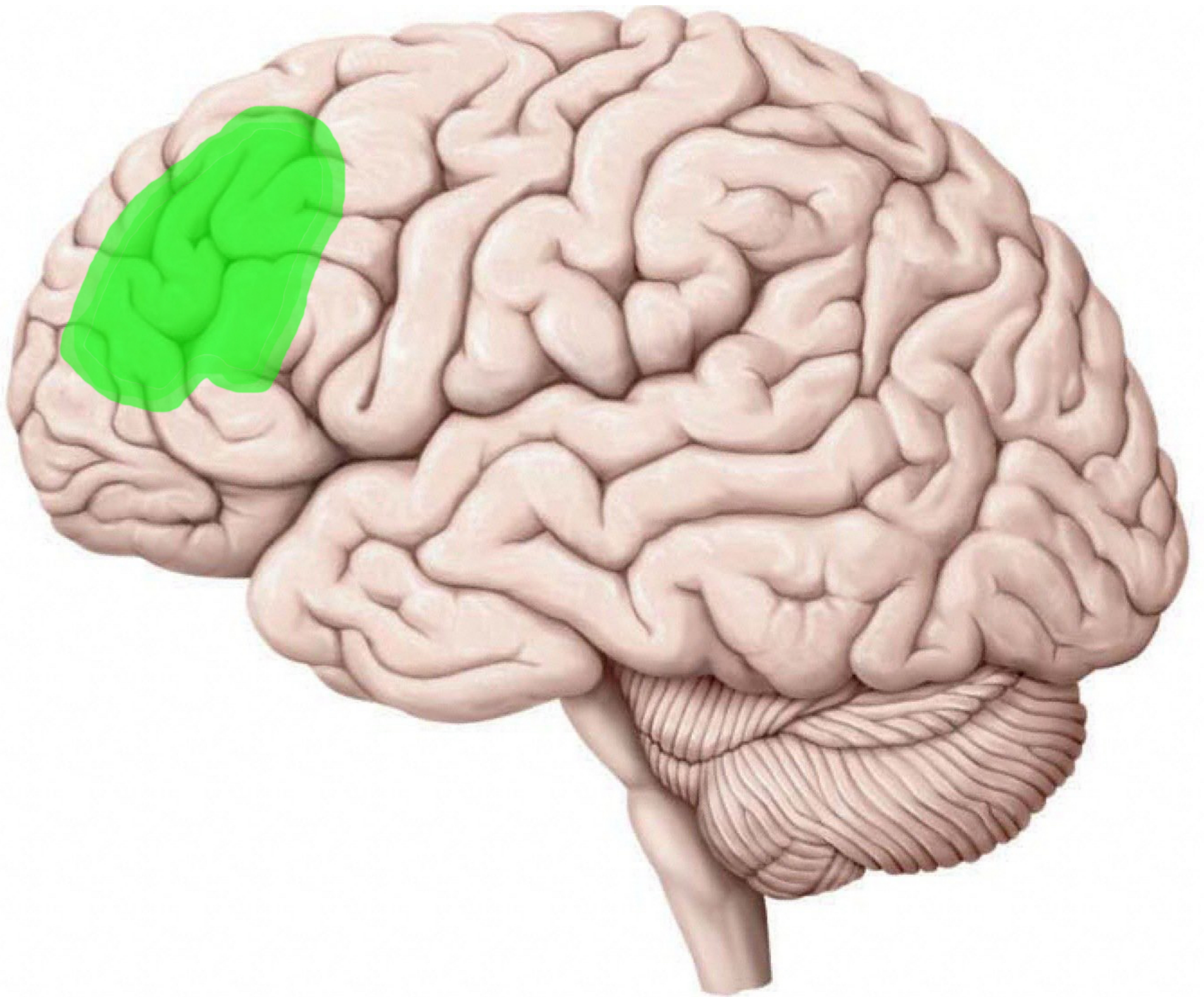








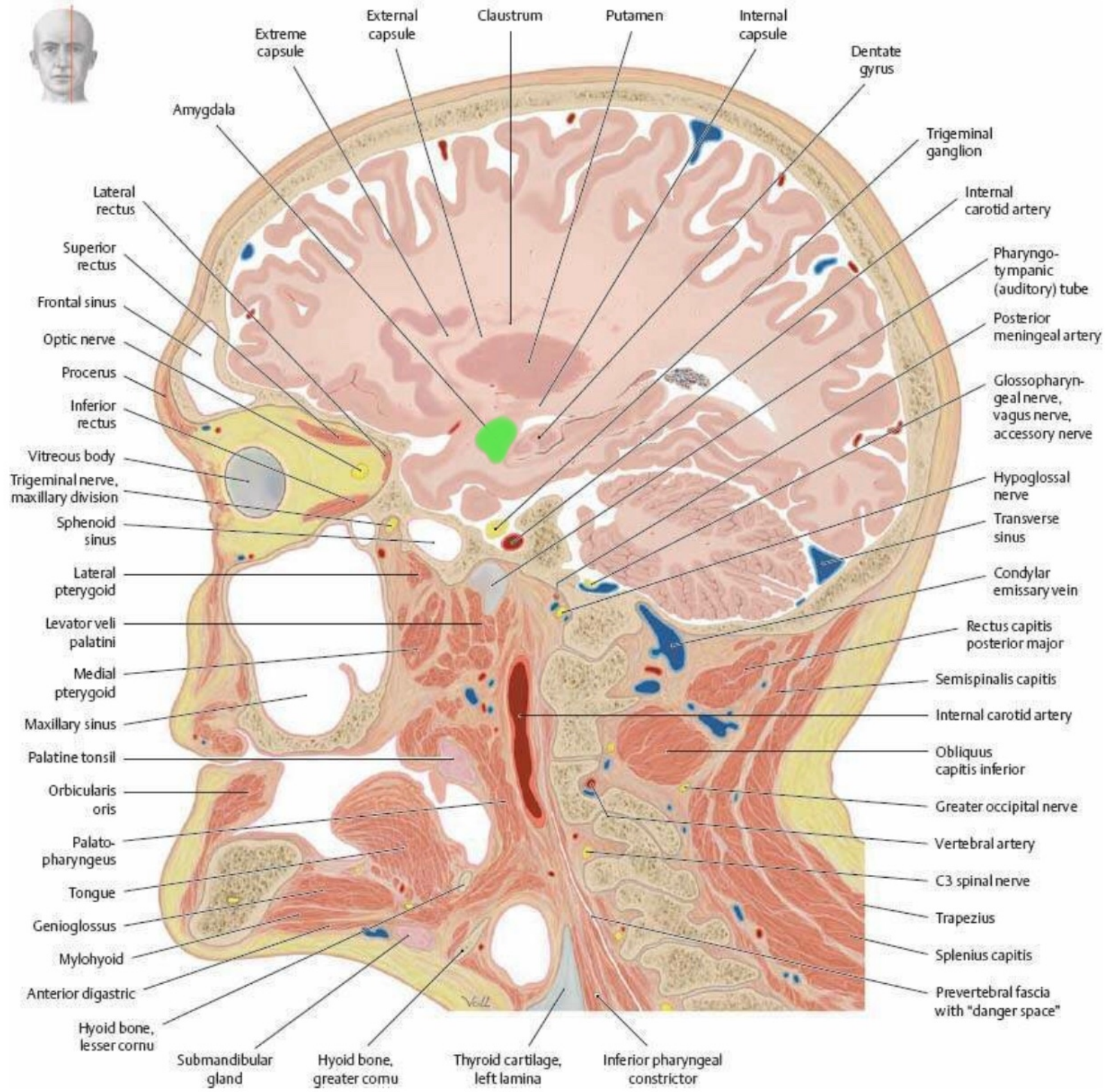


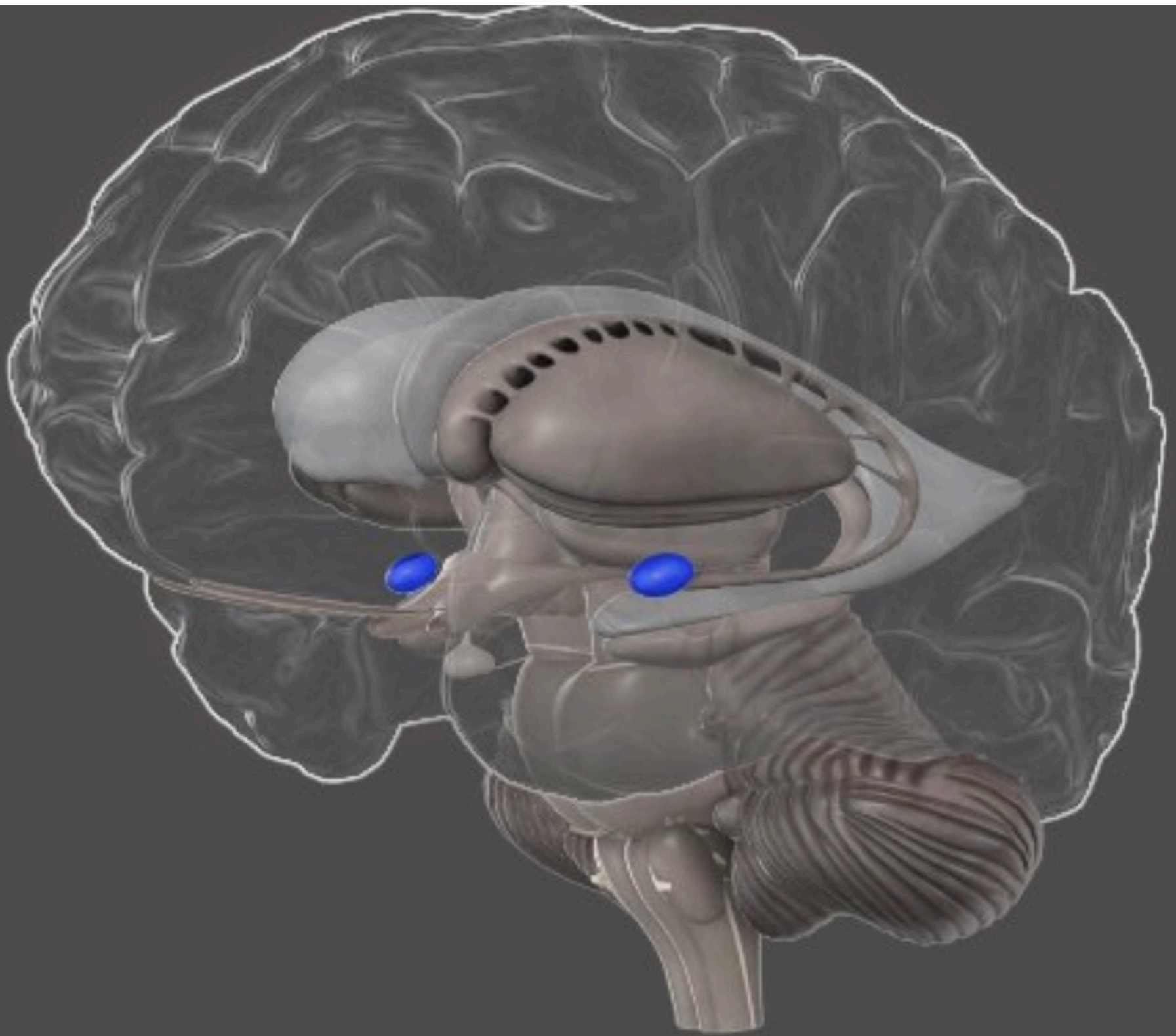


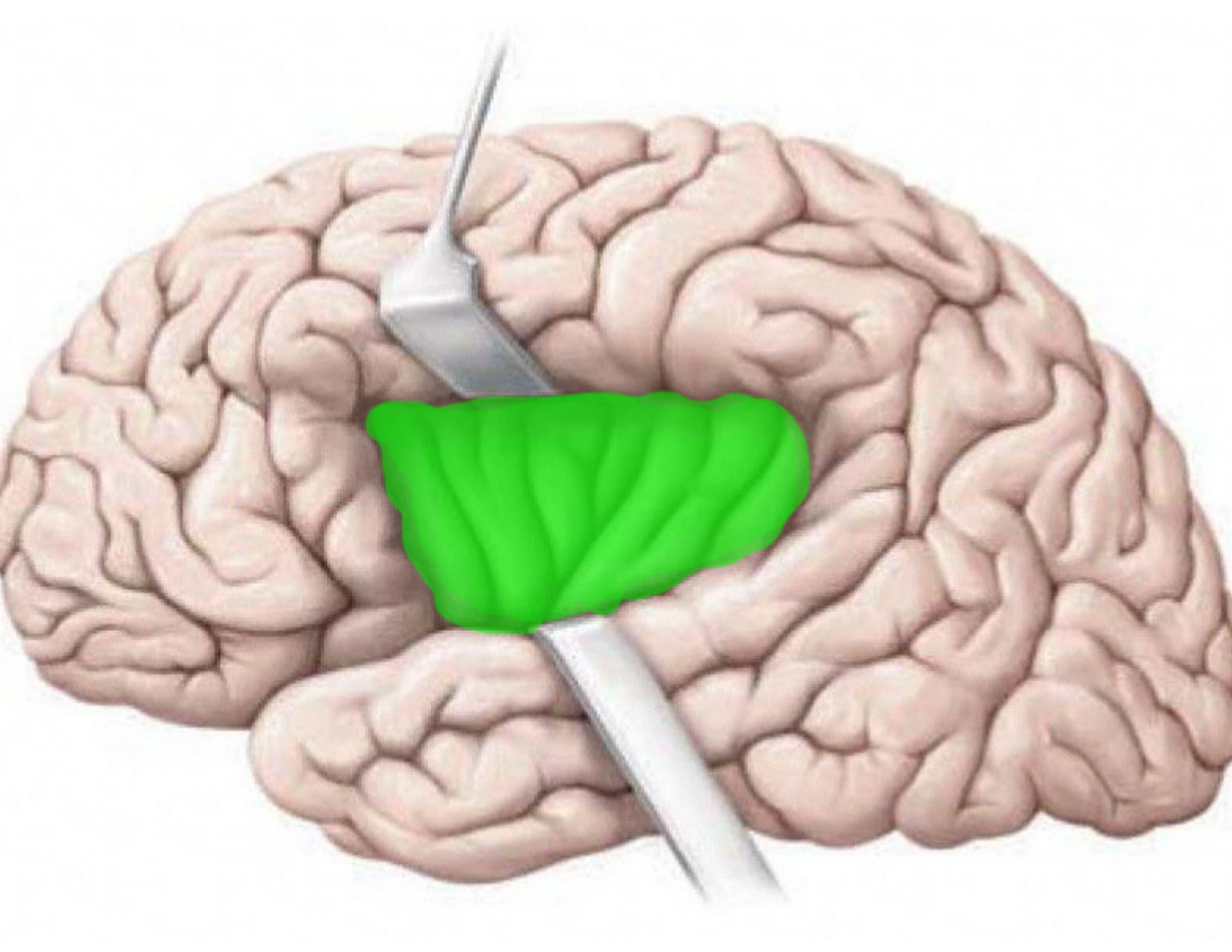
# Specific Phobia

- ◆ Increased Activity Amygdala
- ◆ Increased Activity Insula

A Etkin, Am J Psych, 2007.







# SAD

- ◆ Decreased Activity Orbitofrontal Cortex  
(And reduced connectivity with amygdala)
- ◆ Increased Activity Amygdala
- ◆ Increased Activity Insula



# “Anxiety”

- ◆ Increased Activity Amygdala
- ◆ Decreased Volume Orbitofrontal Cortex
- ◆ Caudate
- ◆ Thalamus



Proposed OMM

# Not The Goal



# Osteopathic Philosophy

- ◆ 1. Body Unit - Body, Mind and Spirit
- ◆ 2. Structure and Function are Reciprocally Interrelated
- ◆ 3. Self-Healing & Self-Regulating Systems
- ◆ 4. Rationale treatment applies these to each patient

# Osteopathic Approach

- ◆ An osteopath reasons from his knowledge of anatomy - Still
- ◆ Principles of osteopathy follow logic of an applied knowledge of anatomy, physiology and pathology - Webster
- ◆ Life is not a composite of the functions of the viscera - Korr

Still-Research & Practice, Webster-Sage Sayings, Korr-Physiological basis

# Before You Begin

- ◆ Patient Selection
  - ◆ Presence of an anxiety disorder
  - ◆ Candidate for manual medicine in general
  - ◆ Obtain consent

# Relative Contraindications

- ◆ Recent cerebral vascular event (<6wks)
- ◆ Acute paranoia or other delusions
- ◆ Technique specific (HVLA)



# Absolute Contraindications

- ◆ Patient's refusal to be touched or receive manual medicine





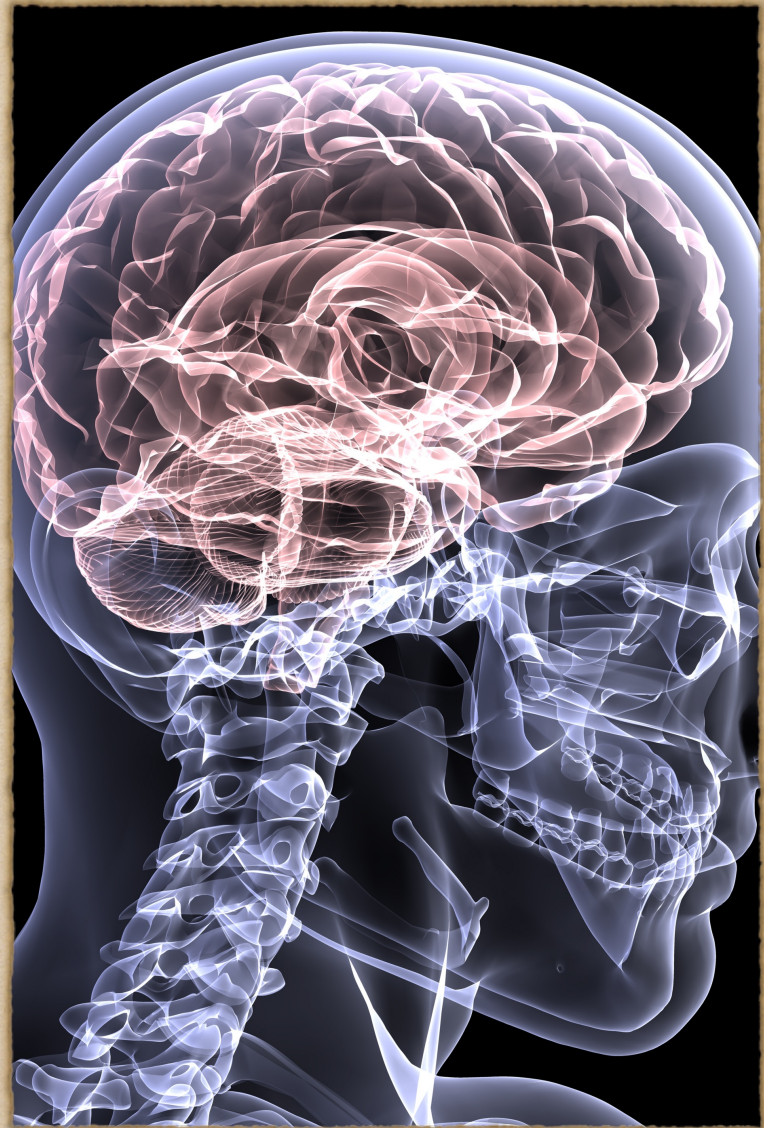
# General Approach

- ◆ Optimize Structure and Function
  - ◆ Whole Body Assessment
  - ◆ Sympathetic Nervous System
  - ◆ Lymphatics and Secondary Respiration
  - ◆ Primary Respiration

# Vasculature Treatment

- ◆ Venous
  - ◆ Dural Venous Sinuses & Jugular Vein
- ◆ Arterial
  - ◆ Vertebrobasilar Arteries
  - ◆ Internal Carotid Arteries

Treatment of  
Brain  
Parenchyma



# Guiding Principles

- Biomechanic
  - Structural Continuum/Functional Interrelatedness
- Cranial/Balanced Membranous Tension
  - Neutral, Fulcrum
- Biodynamic
  - Homogeneity, Divided Attention, Yield to Innate Intelligence
- Energetic/Fulford
  - Energy sink

# Palpatory Experience

- Each body tissue has a unique quality
- Health ~ Transparency
  - When observing a structure in the mind's eye through intentional localized palpation, one can see through the structure completely and palpate through the structure with no significant friction or drag.



# Palpatory Experience

- Assess Somatic Dysfunction with TART
- Tension (restriction, resistance, friction, drag)
- Laxity (flaccid, void, drain, hollow)
- Volume Change (increased or decreased)
- Activity Change (increased, decreased, static, inactivity)

# Palpatory Experience

- Cortical (Frontal Lobe)
  - ↑ Myelin, ↑ Fluid
  - Synthetic Sponge
- Subcortical (Thalamus)
  - ↓ Myelin, ↓ Fluid
  - Natural Sponge

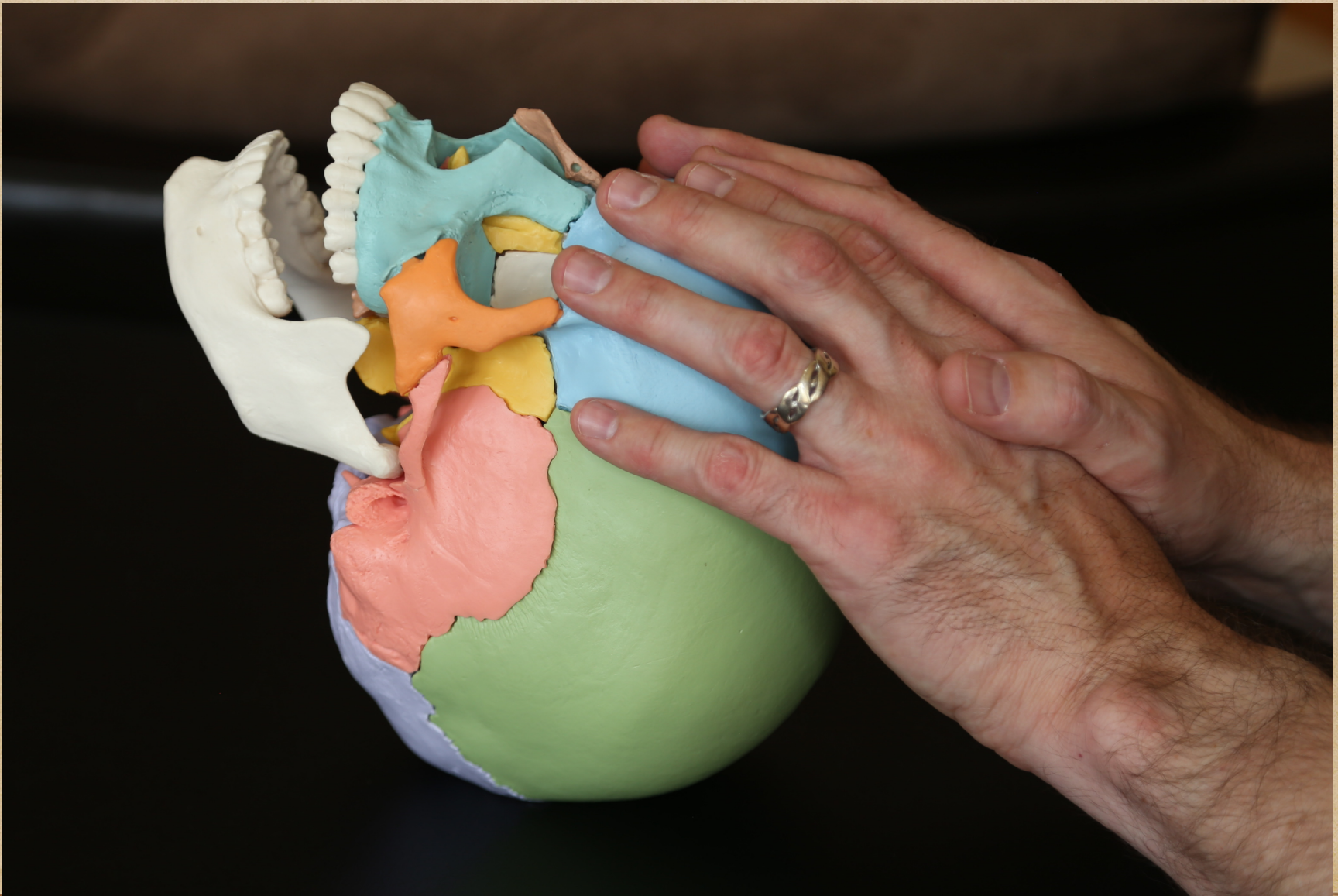




# Brain Parenchyma Treatment

- Find Health Reference 1st (Transparency)
- Divided Attention (Health and Dysfunction)
- Neutral is established automatically
- Change is rapid (1-3 sec)
- End point: Change stops, Transparency develops
- Reassess

# Orbitofrontal Cortex



# Orbitofrontal Cortex



# Amygdala

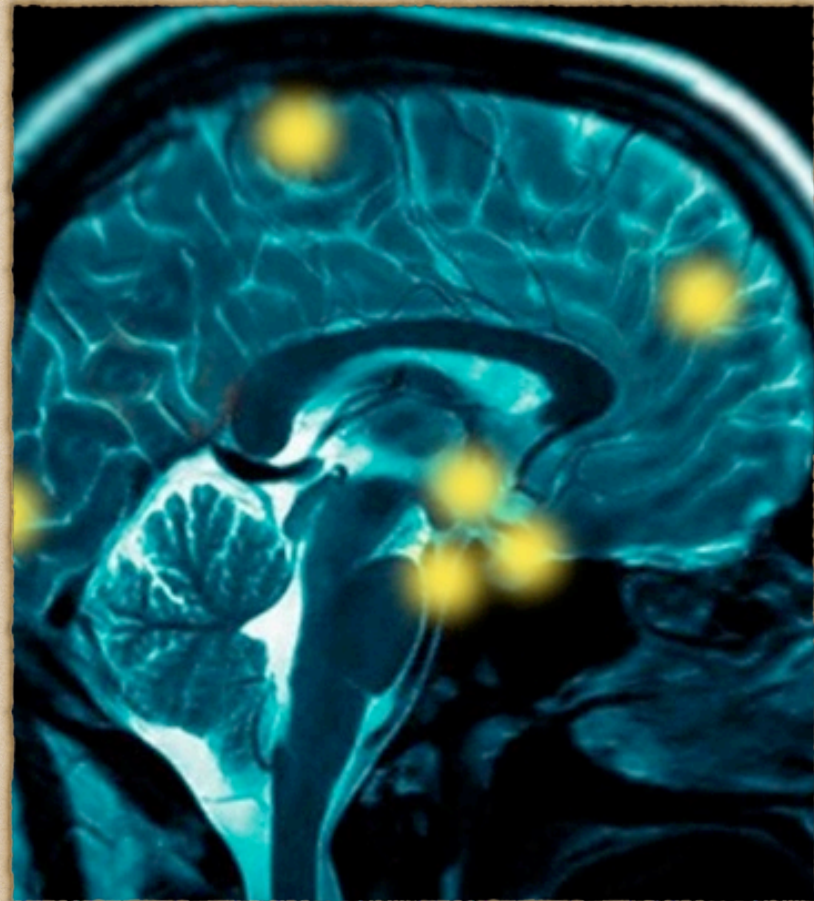


Amygdala



# Other Options?

- ◆ Cranial Vertebrae
  - ◆ Charlotte Weaver DO
- ◆ Biodynamics
  - ◆ James Jealous DO
- ◆ Brain Curriculum
  - ◆ Bruno Chikly MD DO



The End

Questions?

