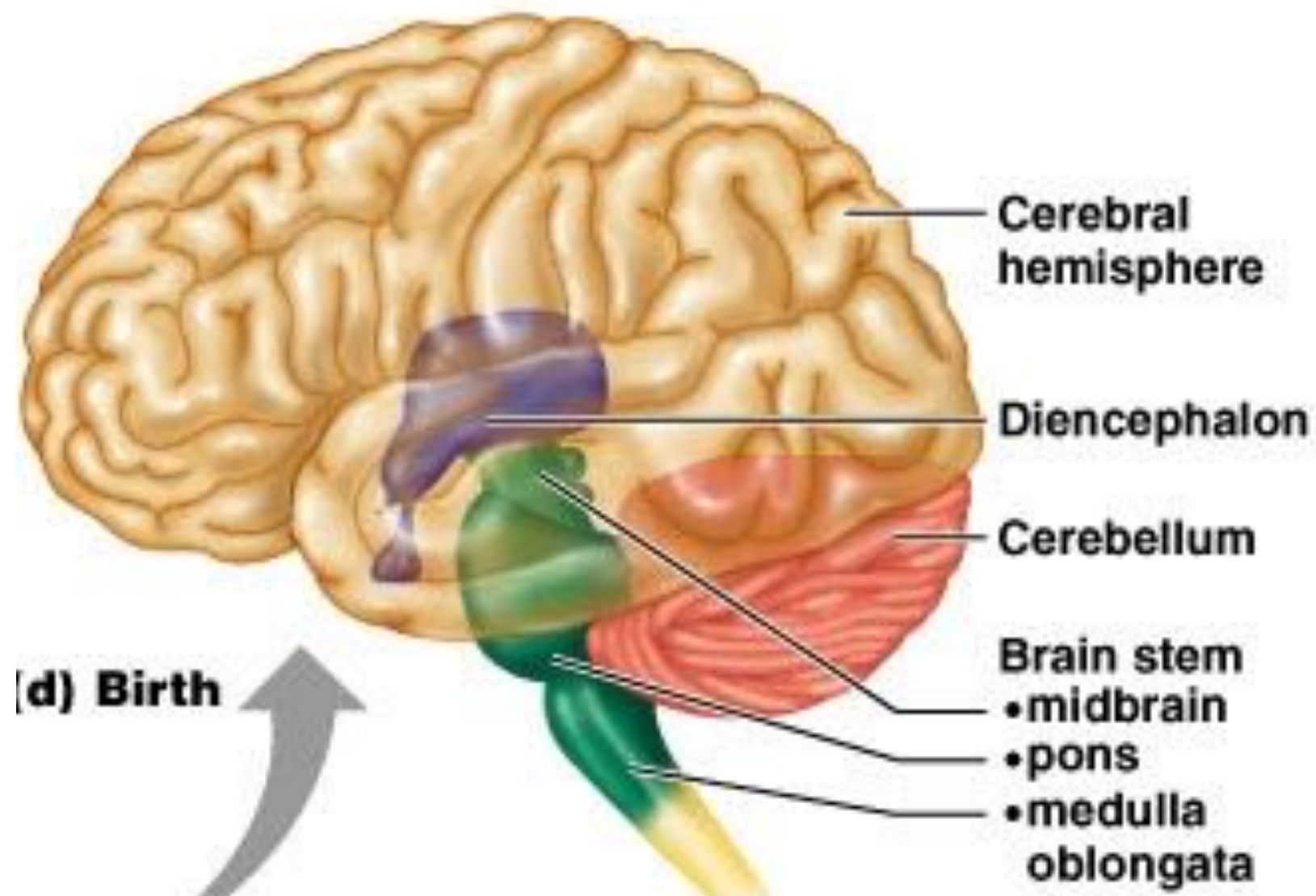


# Anatomska klasifikacija



Cerebrum: Cerebral hemispheres (cortex, white matter, basal nuclei)

Diencephalon (thalamus, hypothalamus, epithalamus)

Brain stem: midbrain

Brain stem: pons

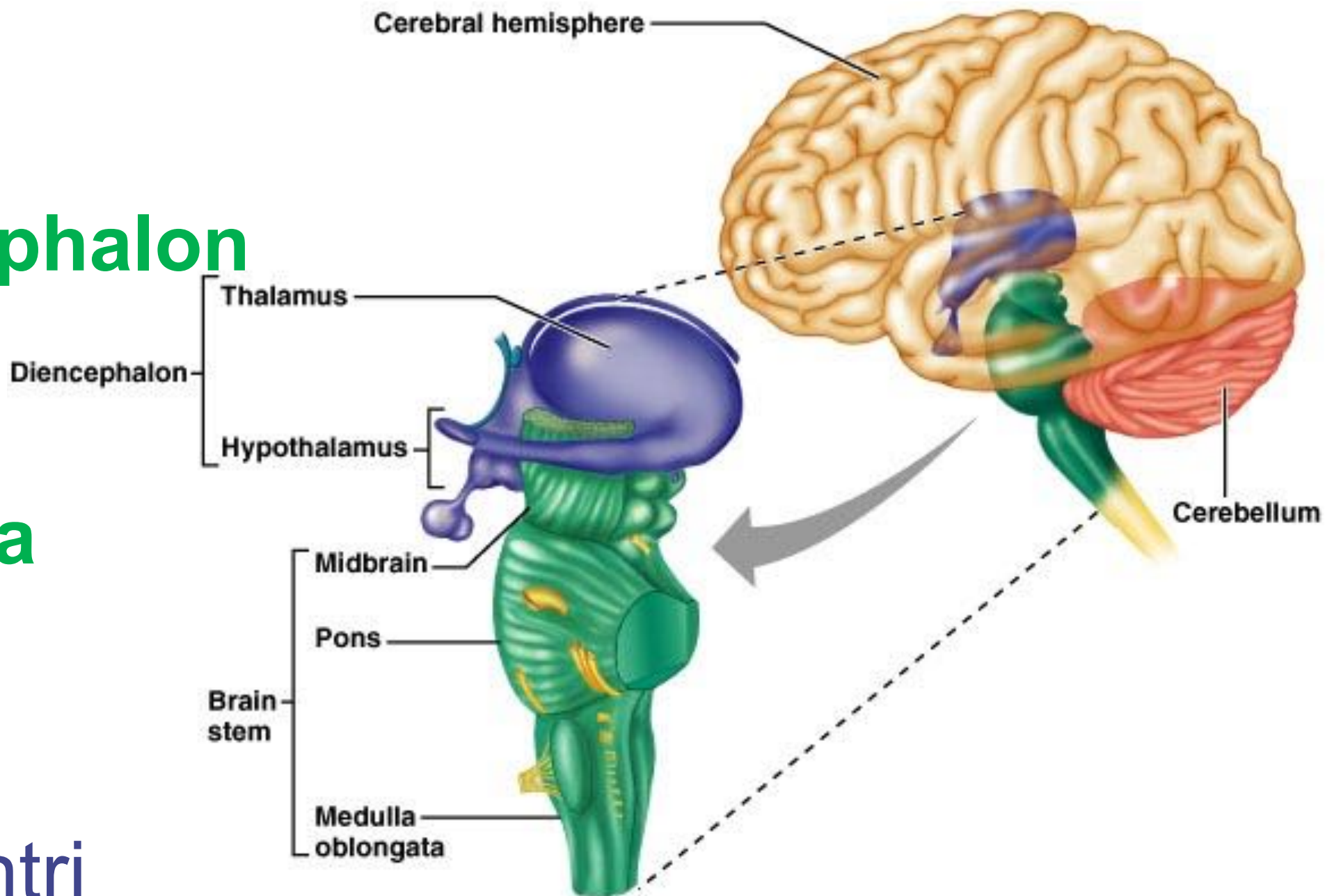
Cerebellum

Brain stem: medulla oblongata

Spinal cord

# Moždano stablo

- Mesencephalon
- Pons
- Medulla oblongata



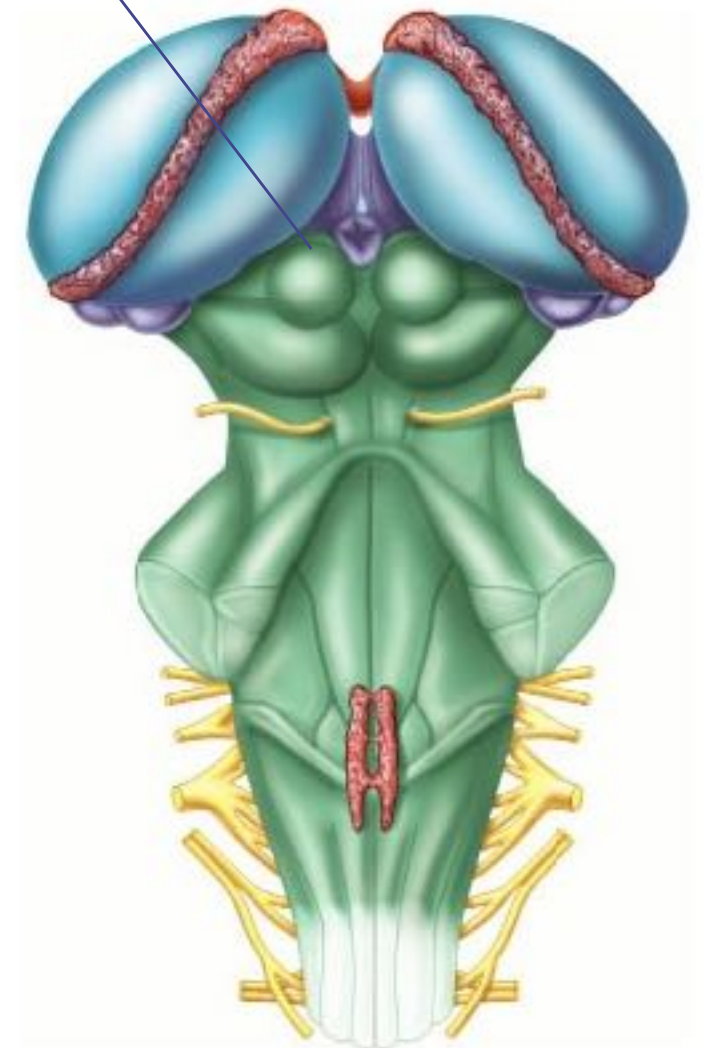
- Refleksni centri
- Sprovodna funkcija
- Inervacija lica i glave (10 od 12 kranijalnih jedara)

# Mesencephalon

- Tectum (gornji i donji kolikuli)

**Corpora quadrigemina**

Vizuelni, auditivni refleksi





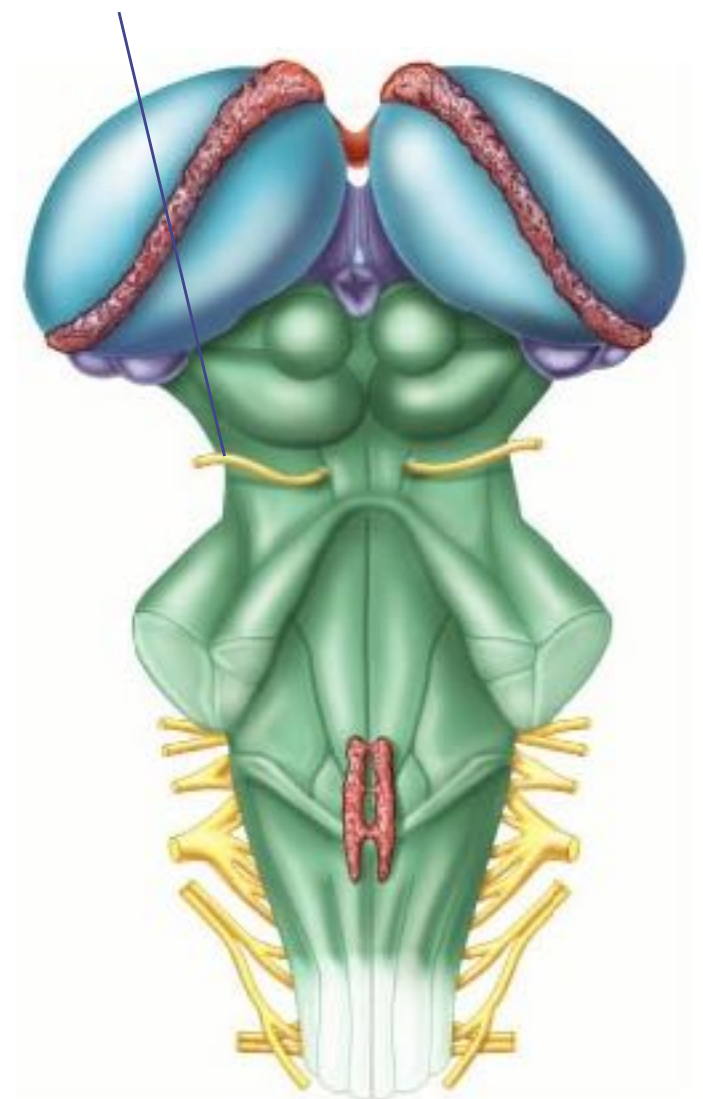
# Mesencephalon

- Tegmentum (jedra III i IV)

N. Oculomotorius III



N. Trochlearis IV



# Mesencephalon

## Nucleus ruber

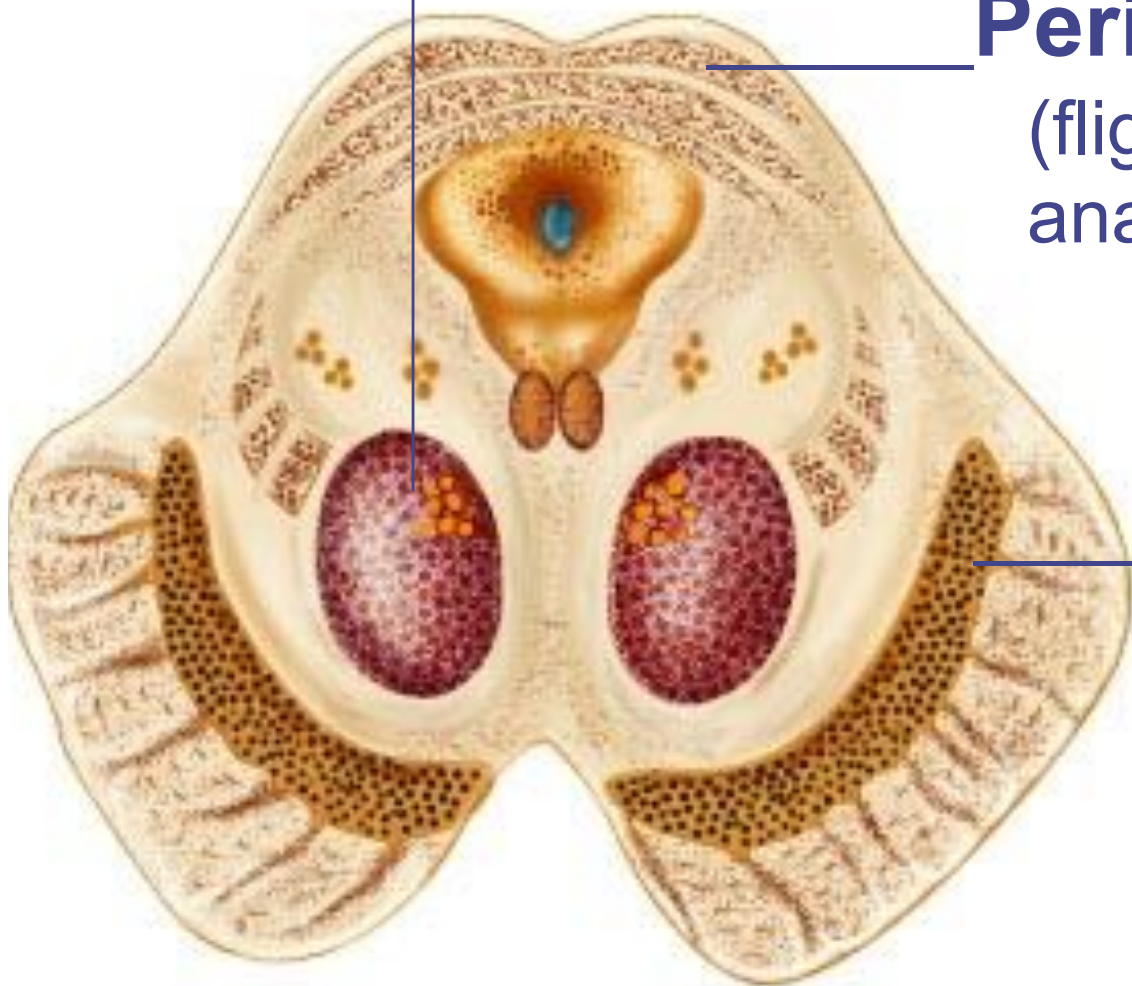
(motorna kontrola - ekstrapiramidalni sistem)

## Periaqueduktalna siva masa

(flight/flight; nausea i visceralna bol;  
analgezijski sistem; jedra kranijalnih živaca)

## Substantia nigra

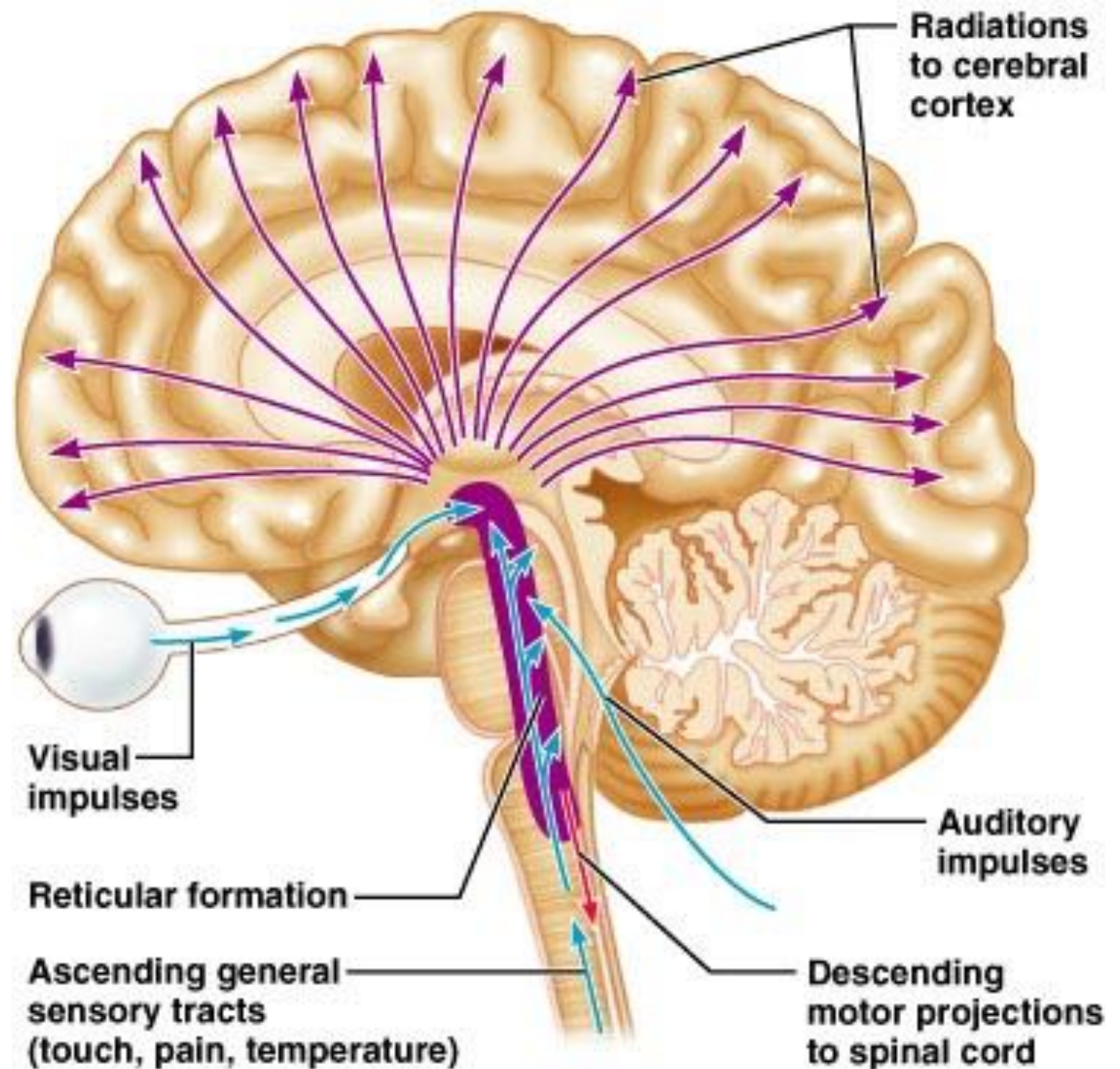
(Parkinsonova bolest)





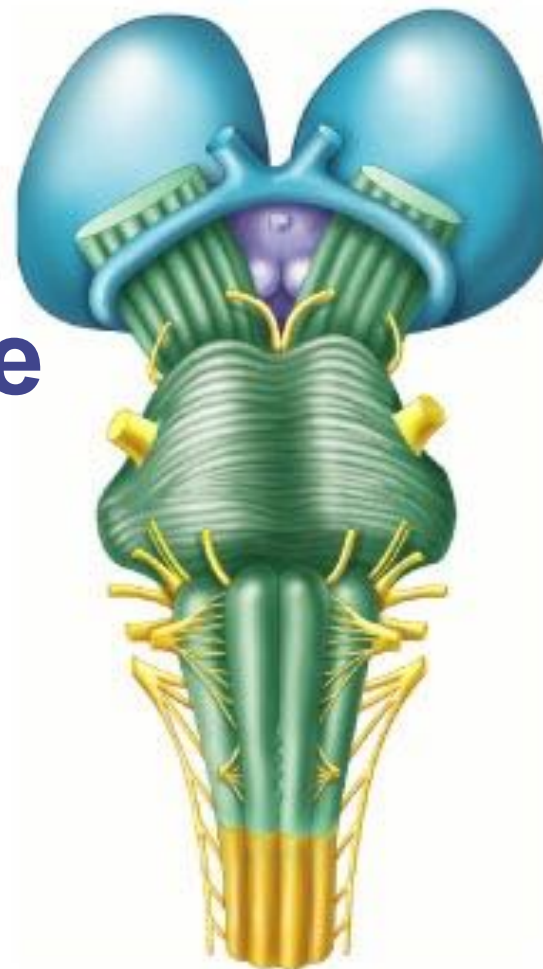
# Retikularna formacija

Retikularni  
aktivirajući  
sistem

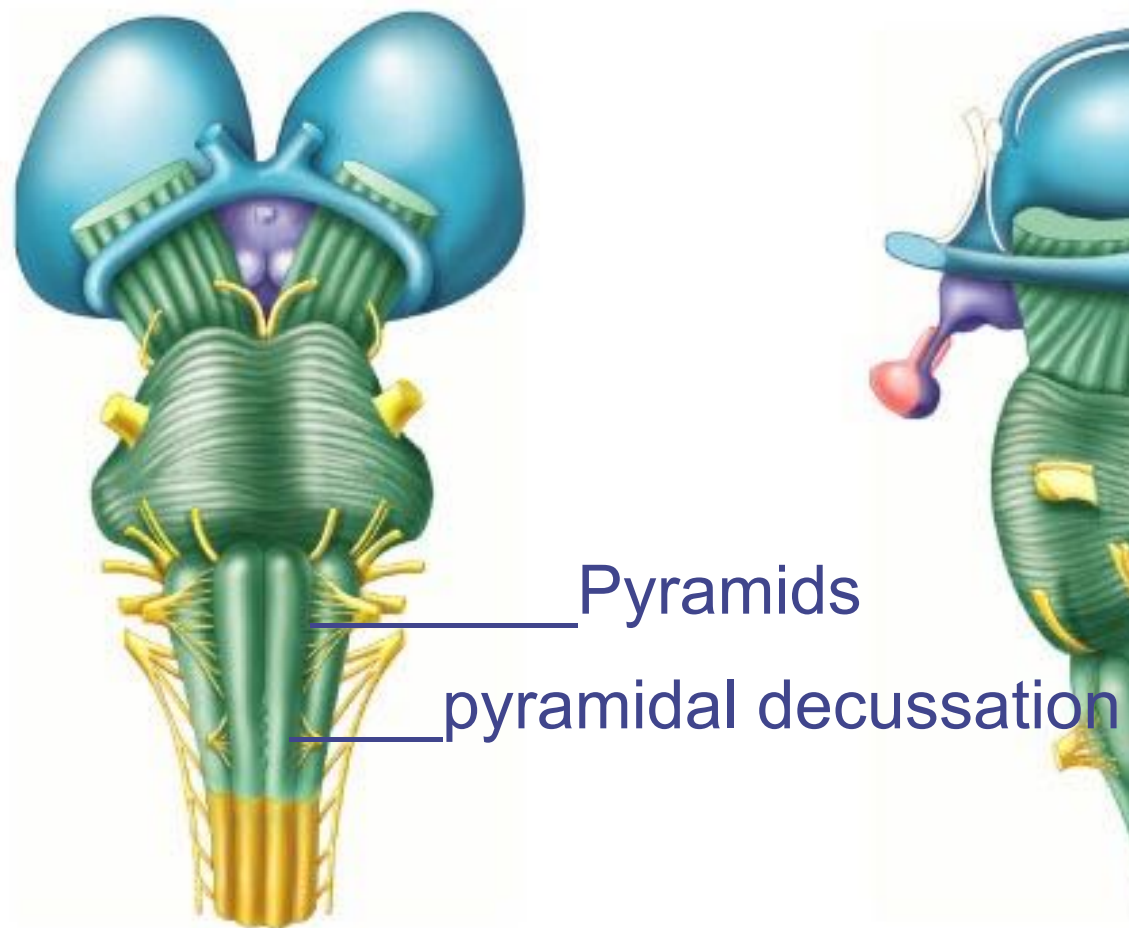


# Pons

- **Kontroliše vegetativne homeostatske funkcije:**
  - kardiovaskularne funkcije
  - disanje
  - gutanje
  - povraćanje
  - digestivne funkcije



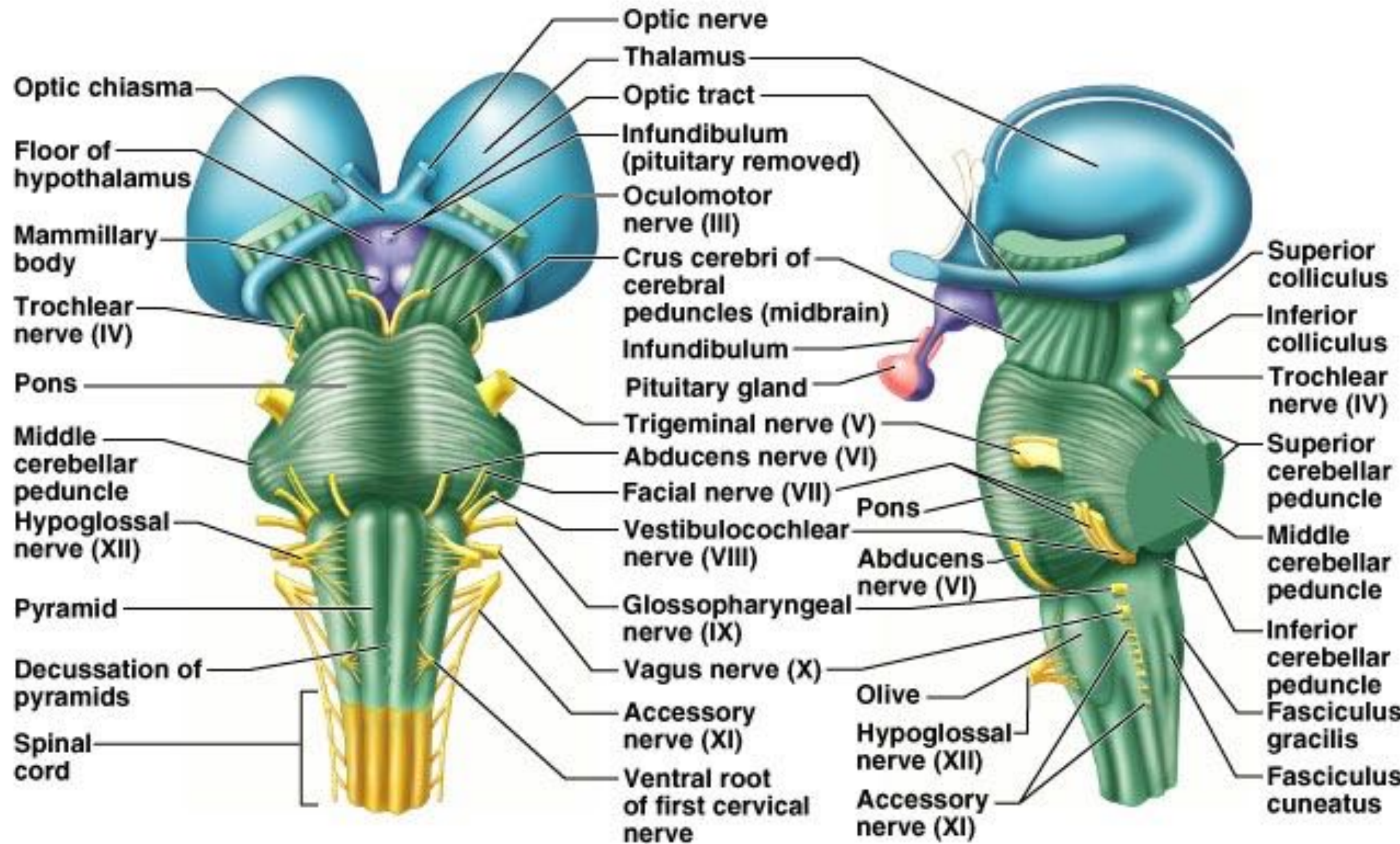
# Medulla oblongata



- **Autonomni centri**
  - srce & krvni sudovi
  - respiratorni ritam
  - gutanje
  - povraćanje
  - salivacija

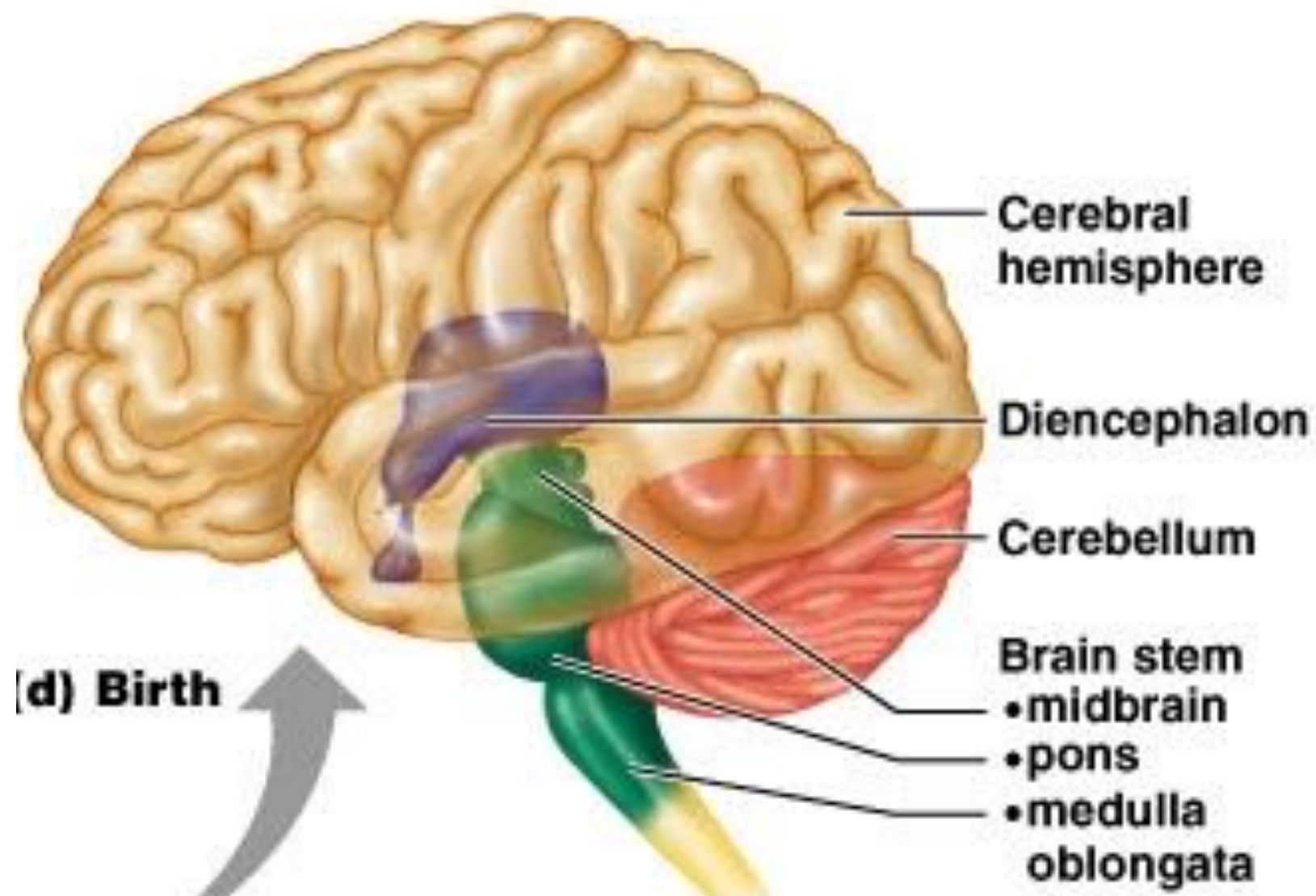


# With all the labels....





# Anatomska klasifikacija



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Brain stem: pons

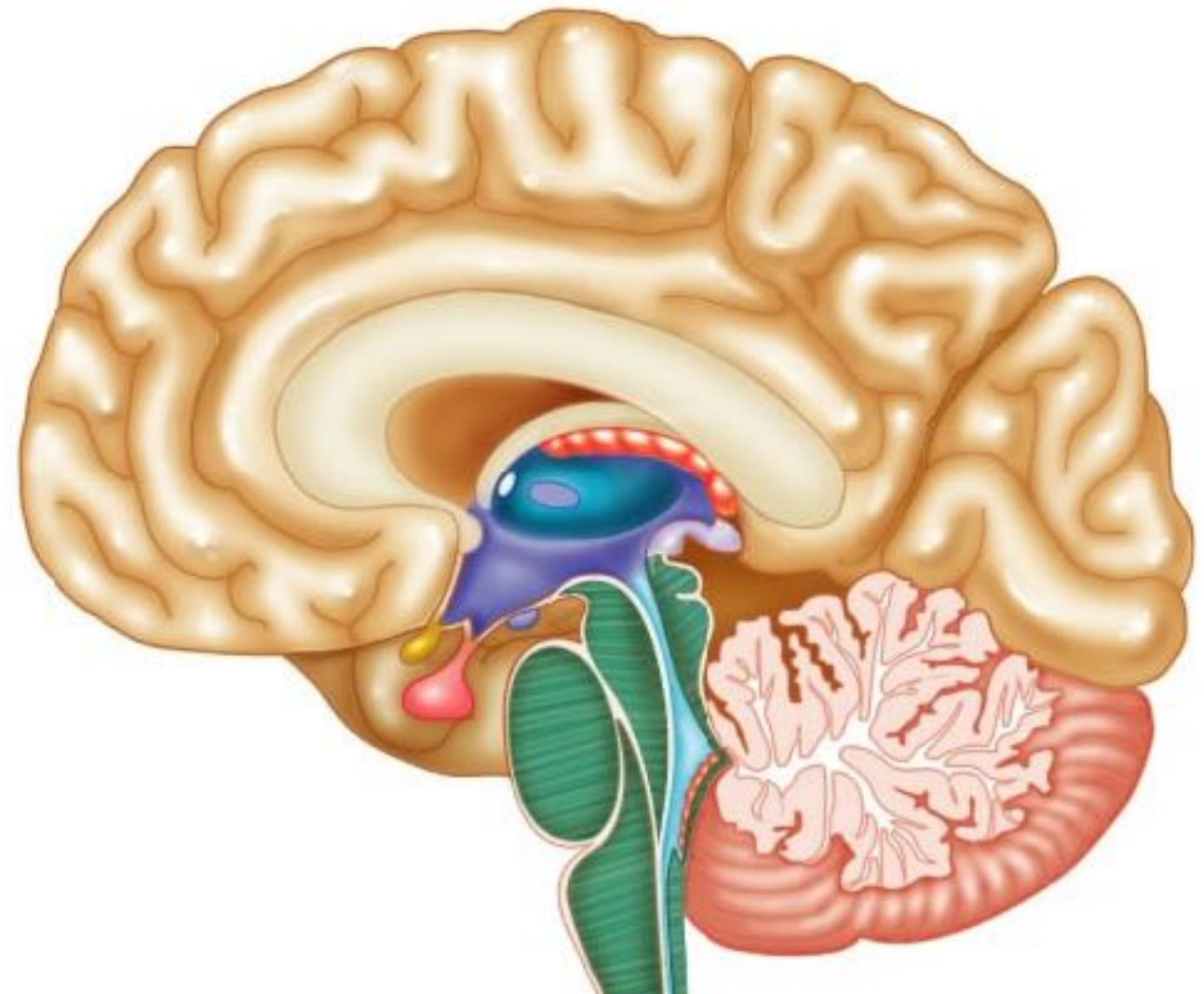
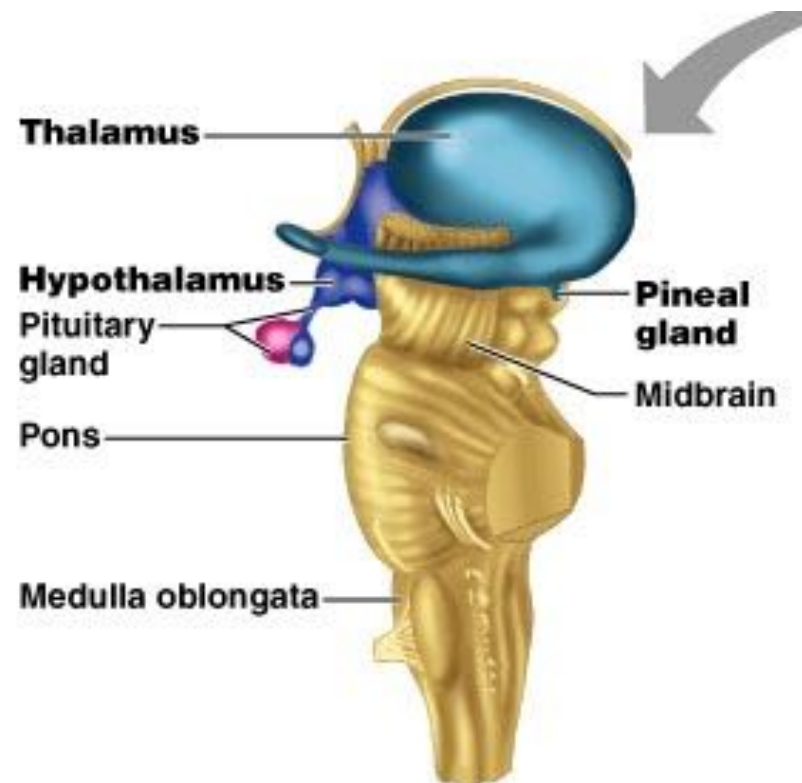
Cerebellum

Brain stem: medulla oblongata

Spinal cord

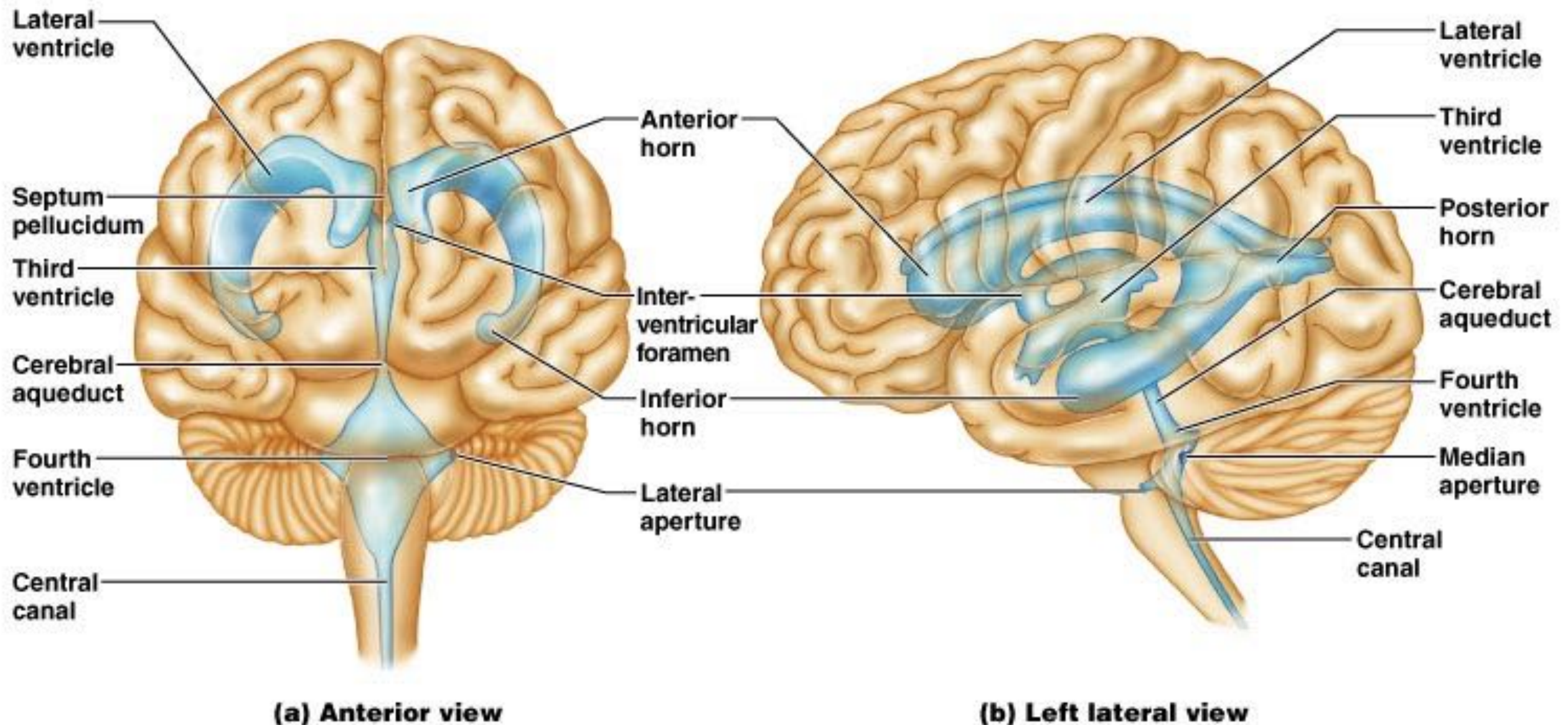
# Diencephalon (međumozak)

- **Thalamus**
- **Hypothalamus**
- **Epithalamus**

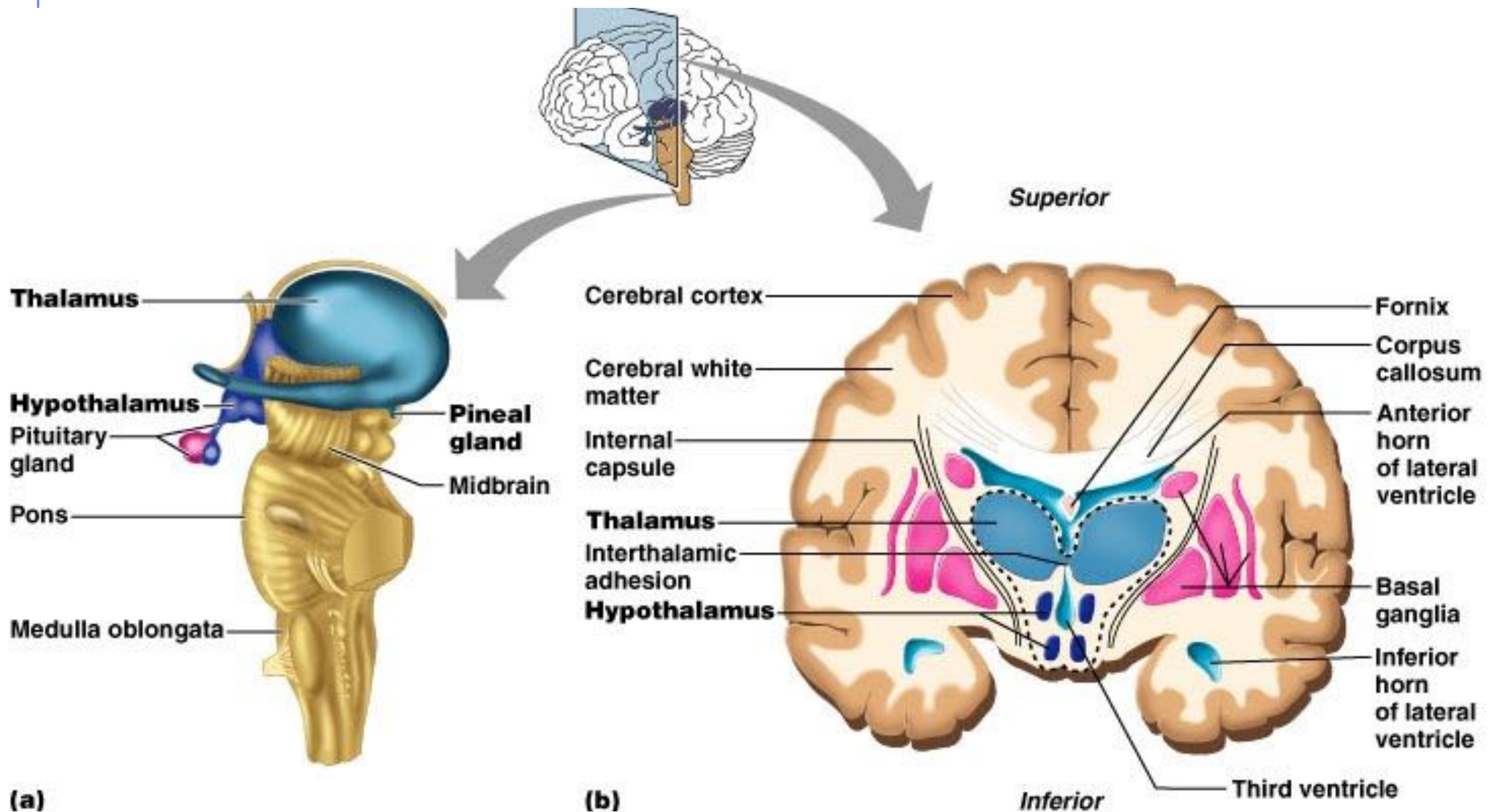




# Treća moždana komora

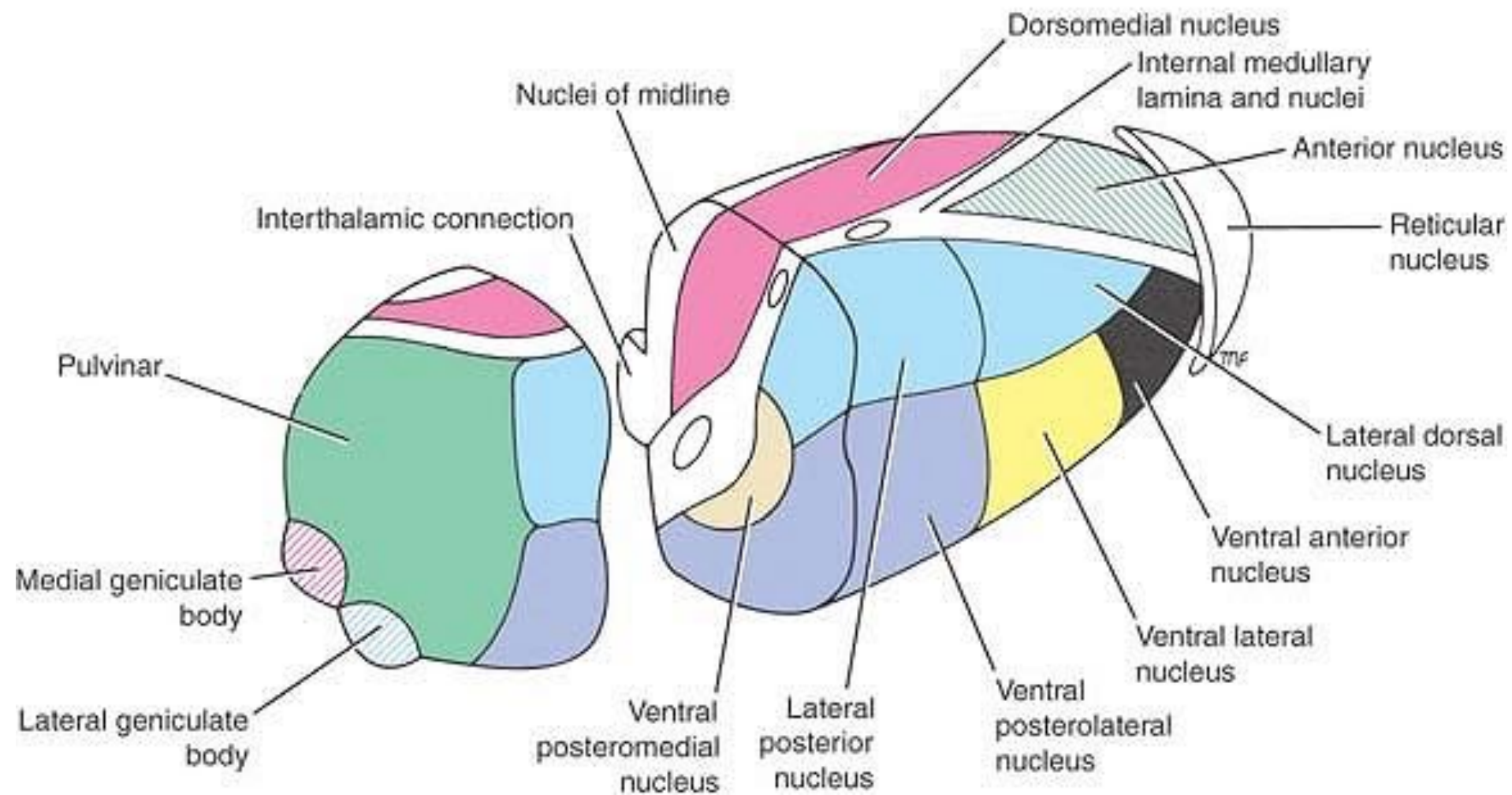


# Thalamus





# Jedra talamusa



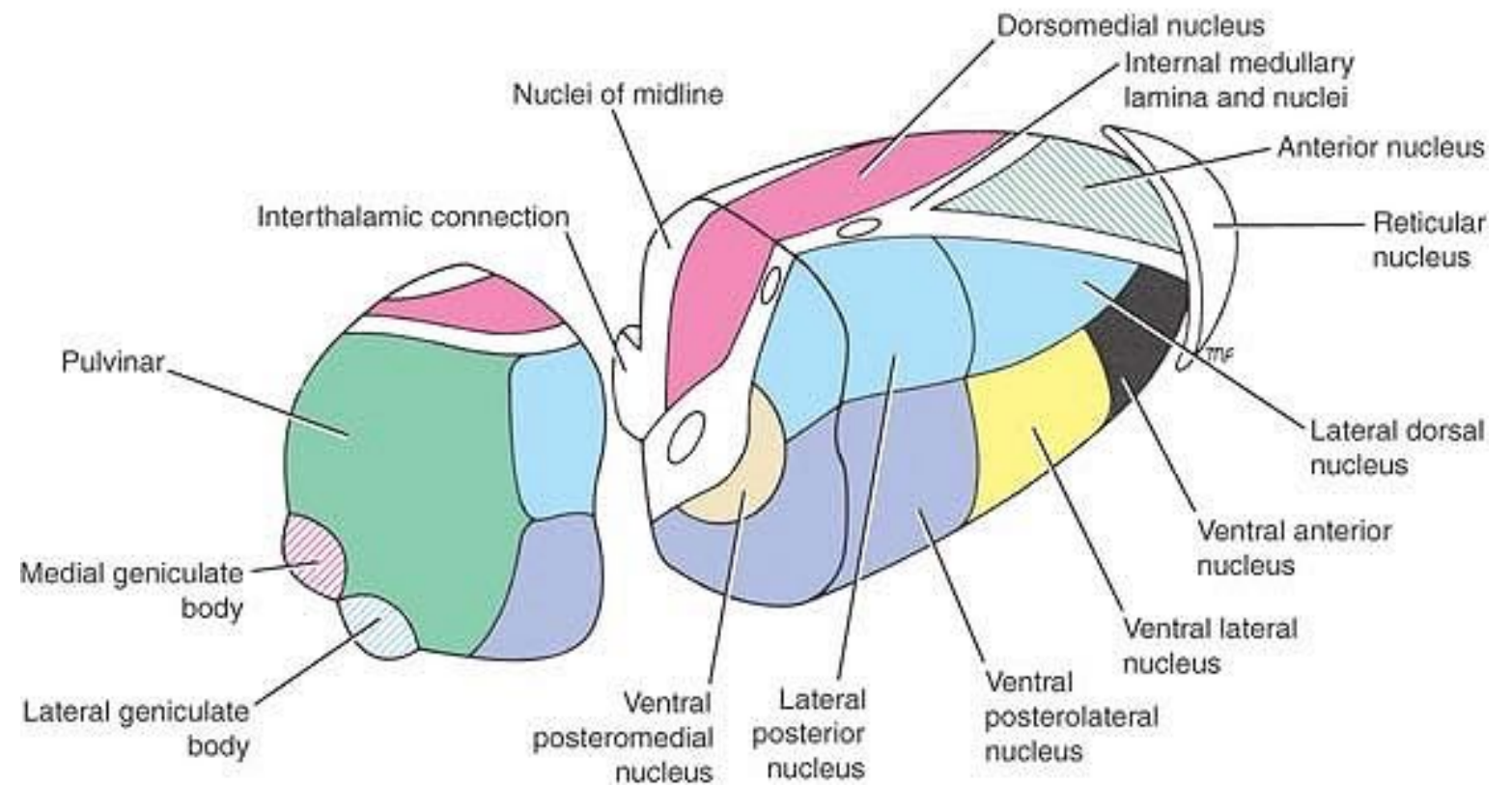


# Senzorna jedra talamusa

Akustički signali  
B 17

Optički signali  
B 41,42

Gustativni signali  
B 1,2,3



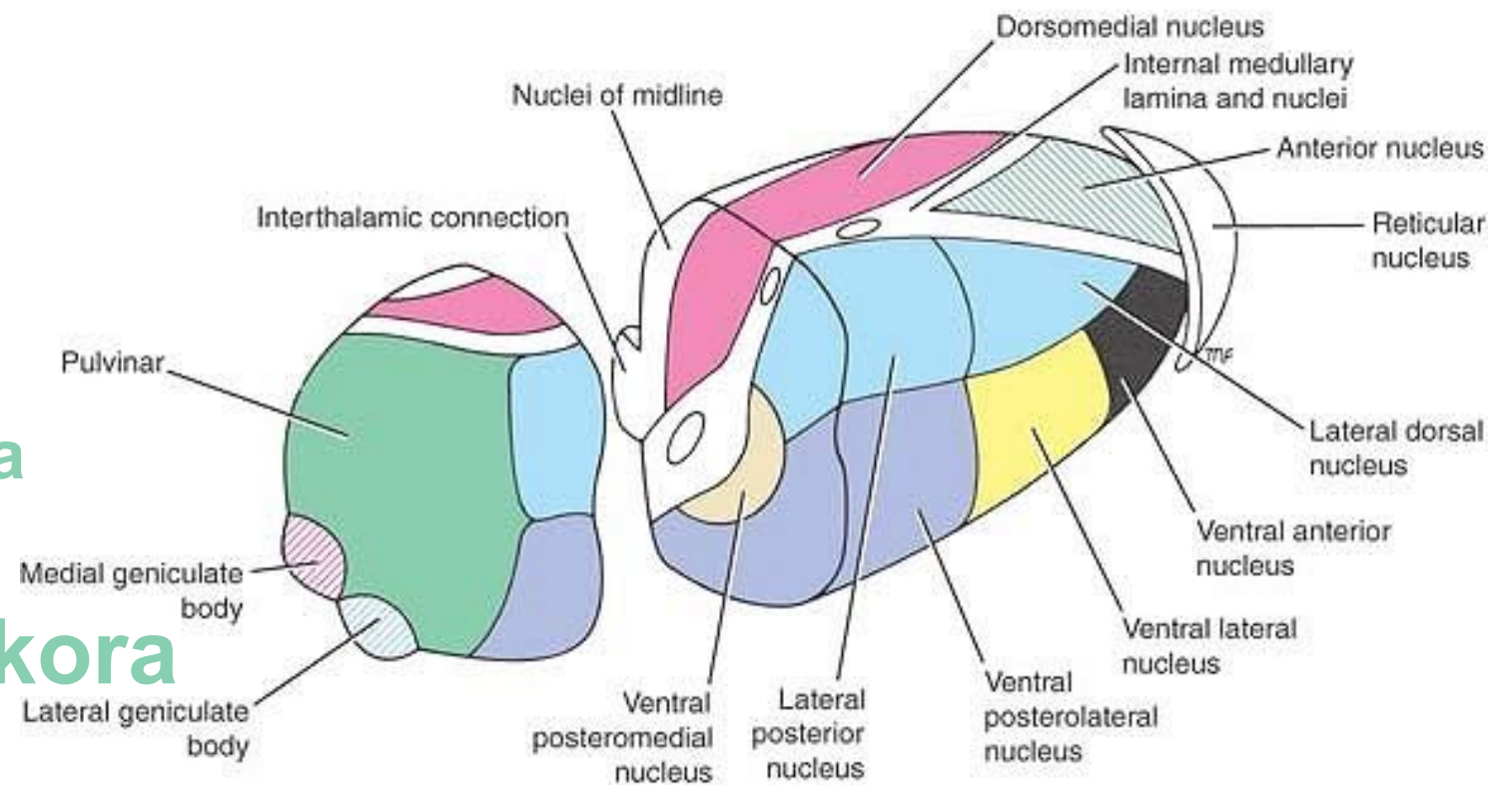
Tr. Spinothalamicus  
Lemniscus medialis  
B 1,2,3

# Asocijativna jedra talamusa

signali iz ventralnog posterolateralnog jedra  
B 5,7  
Prefrontalna kora

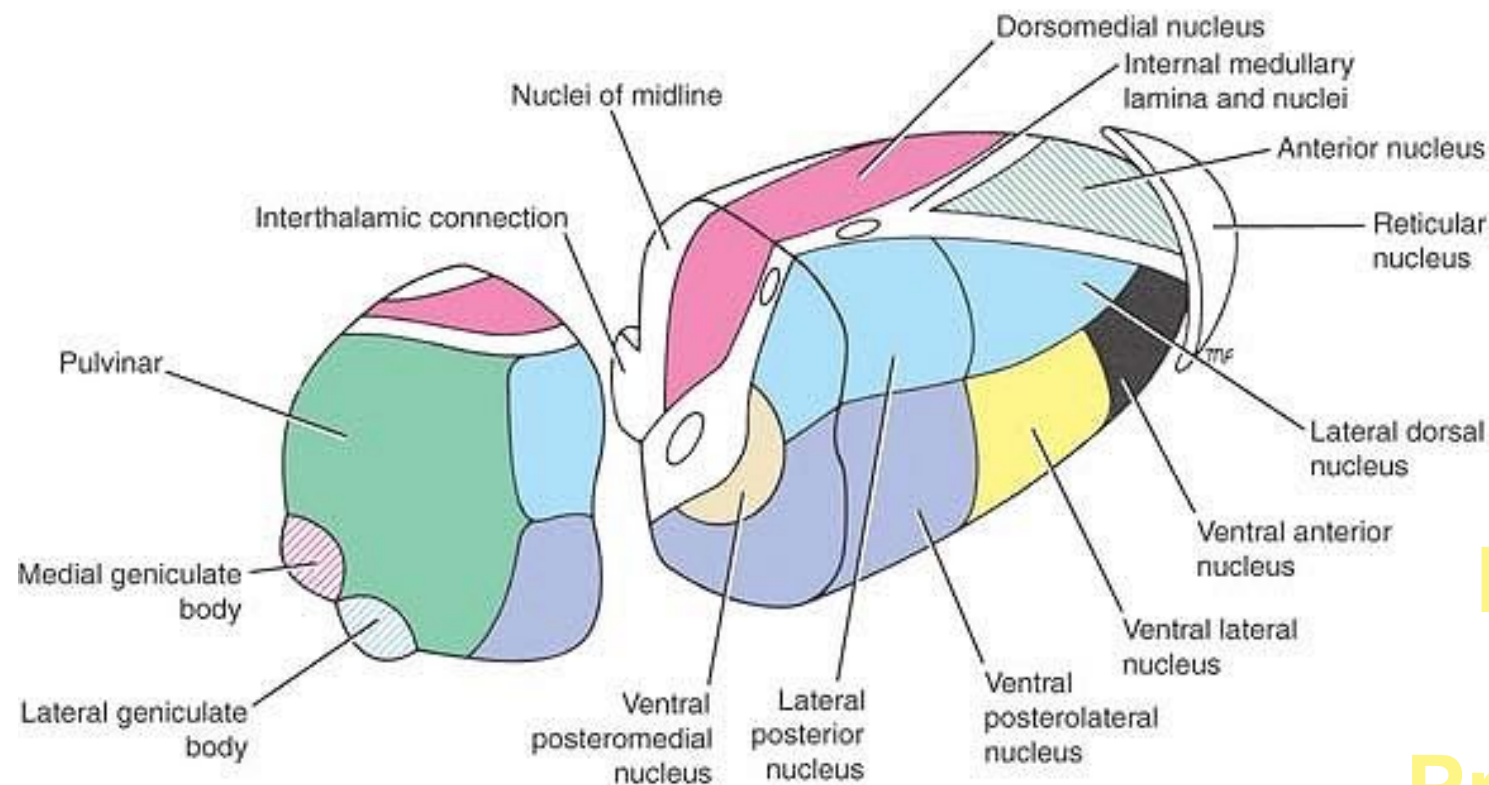
Gornji i donji kolikuli  
iz slušnog i optičkog sistema  
B 18,19

Temporalna asocijativna kora



# Motorna jedra talamusa

## Difuzne projekcije ka kori



**Retikularna  
formacija**

**Substantia nigra**

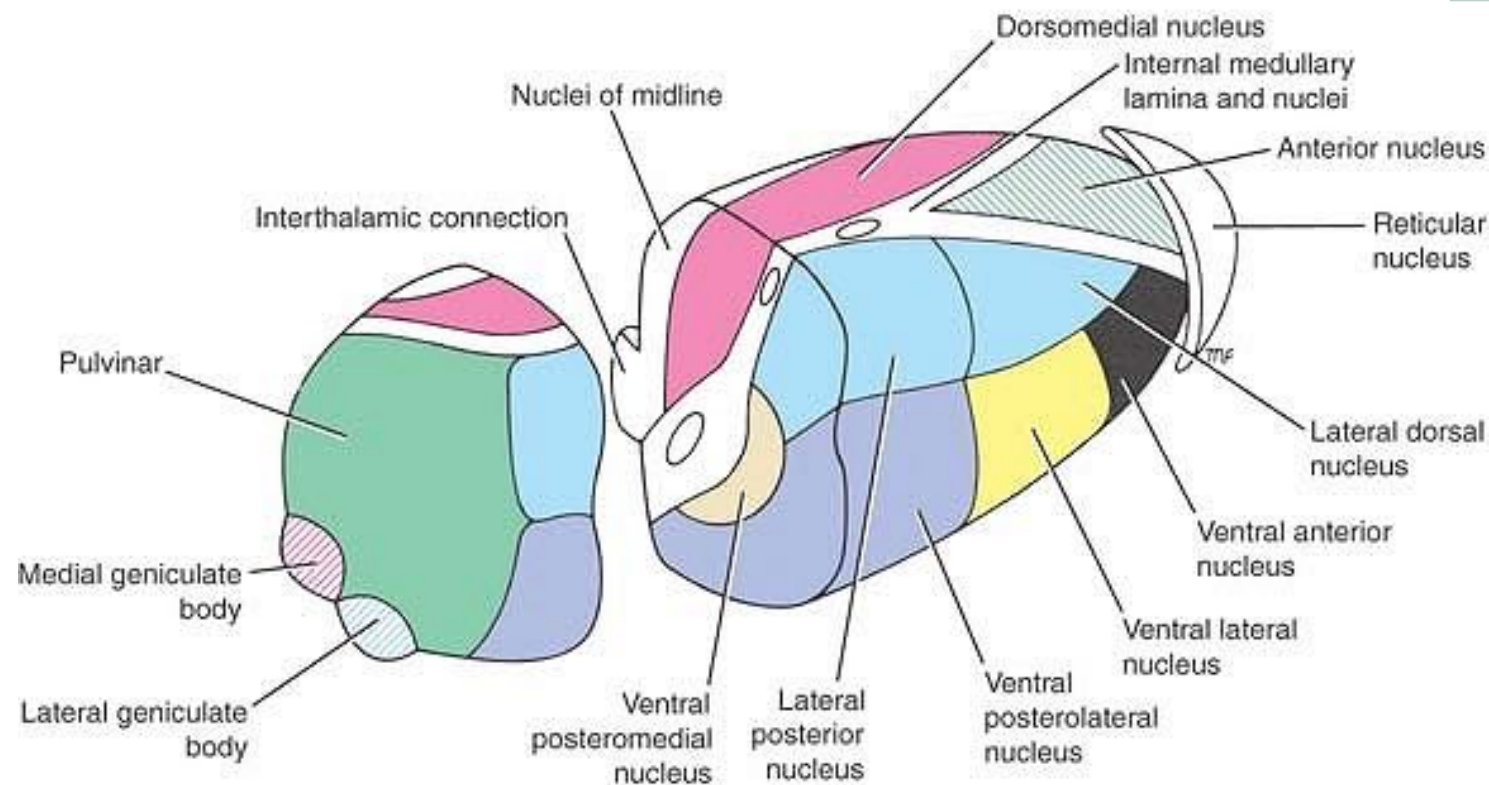
**Bazalna jedra  
B 4**

**Premotorna kora**

**Cerebelum**



# Nespecifična jedra talamusa



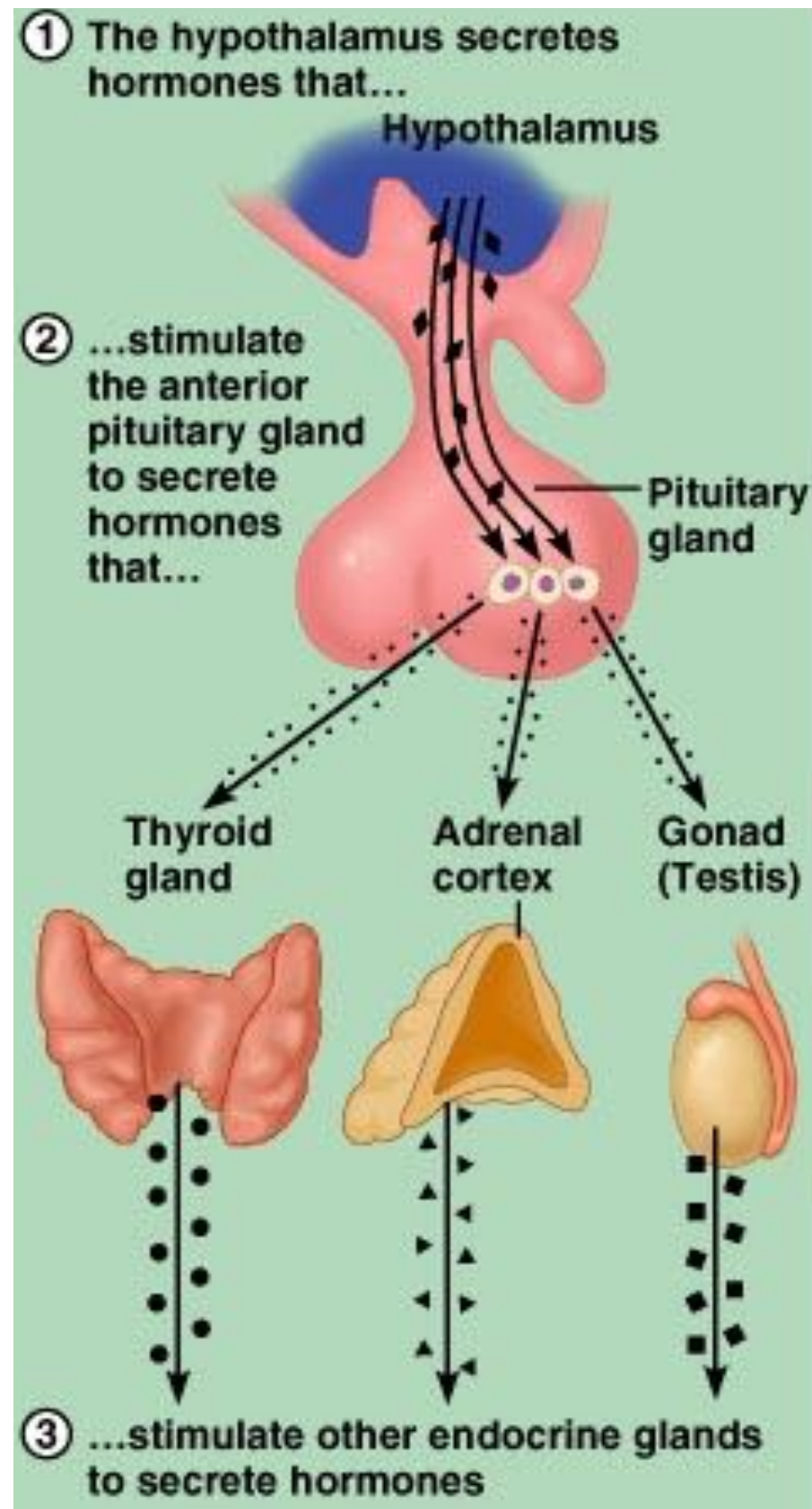
Limbički sistem

Gyrus cinguli

# Hypothalamus

- **Najviši subkortikalni vegetativni centar**
  - **ANS: rad srca, krvni pritisak, salivacija, rad GIT, znojenje....**
  - **Emocionalni odgovori (zadovoljstvo, bes, libido, strah, nagrada, kazna)**
  - **Termoregulacija (preoptičko područje)**
  - **glad, žeđ (lateralni),**
  - **Circadijalni ritam**
  - **Kontrola endokrinog sistema preko hipofize**
  - **Memorija**

# Hypothalamus





# Epithalamus

- Pinealna žleza: luči **melatonin**

