OSPE REVISION
CNS & Reproductive

Department of human Anatomy and Embryology
Faculty of Medicine
Mansoura National University, Egypt

Intended Learning Outcomes (ILOs)

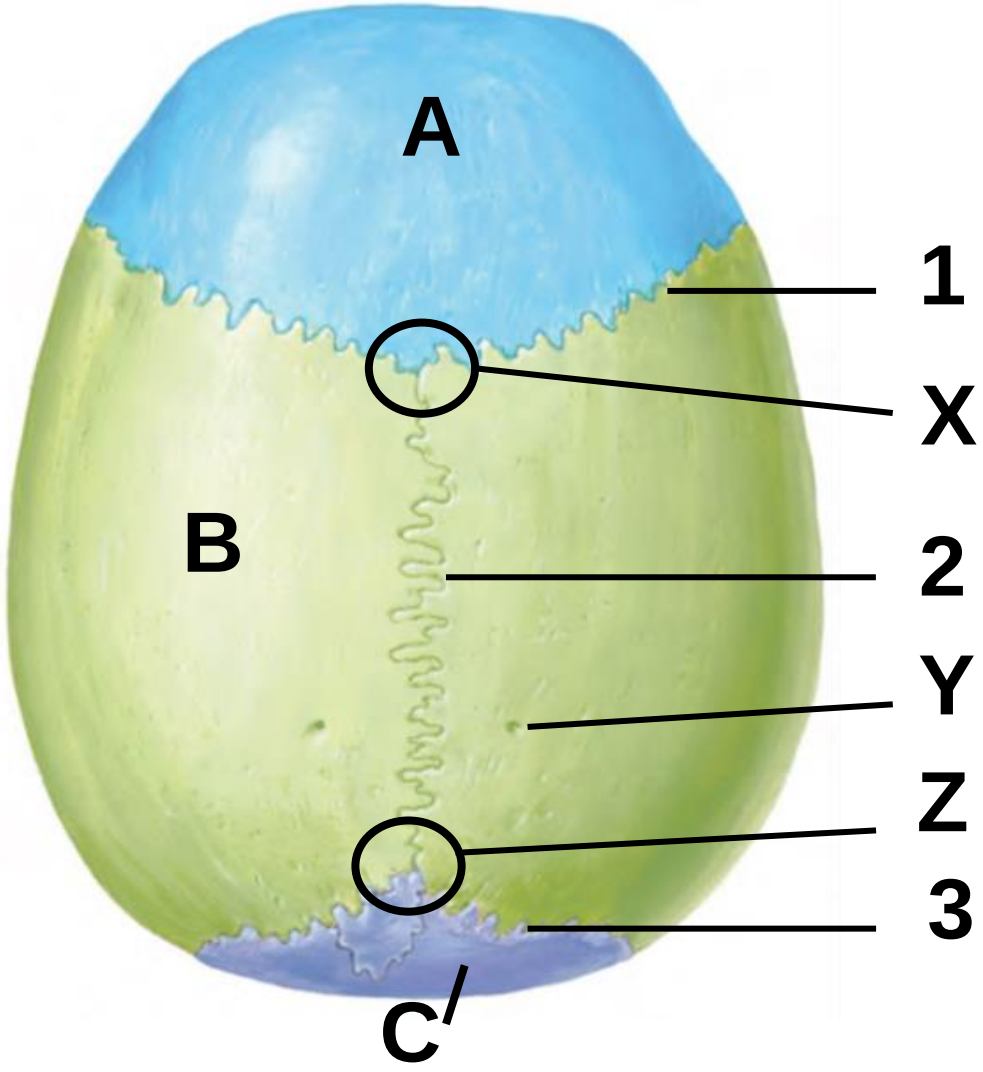
CNS

1. Anatomy of the Skull
2. External features of cerebral hemispheres & limbic system
3. Internal features of cerebral hemispheres, basal ganglia & lateral ventricle
4. Cerebellum, 4th ventricle, diencephalon, 3rd ventricle

Repro

1. Bony pelvis, muscles, arteries, nerves
2. Male and Female Reproductive systems

Anatomy of the Skull



A. Frontal Bone

B. Parietal Bone

C. Occipital Bone

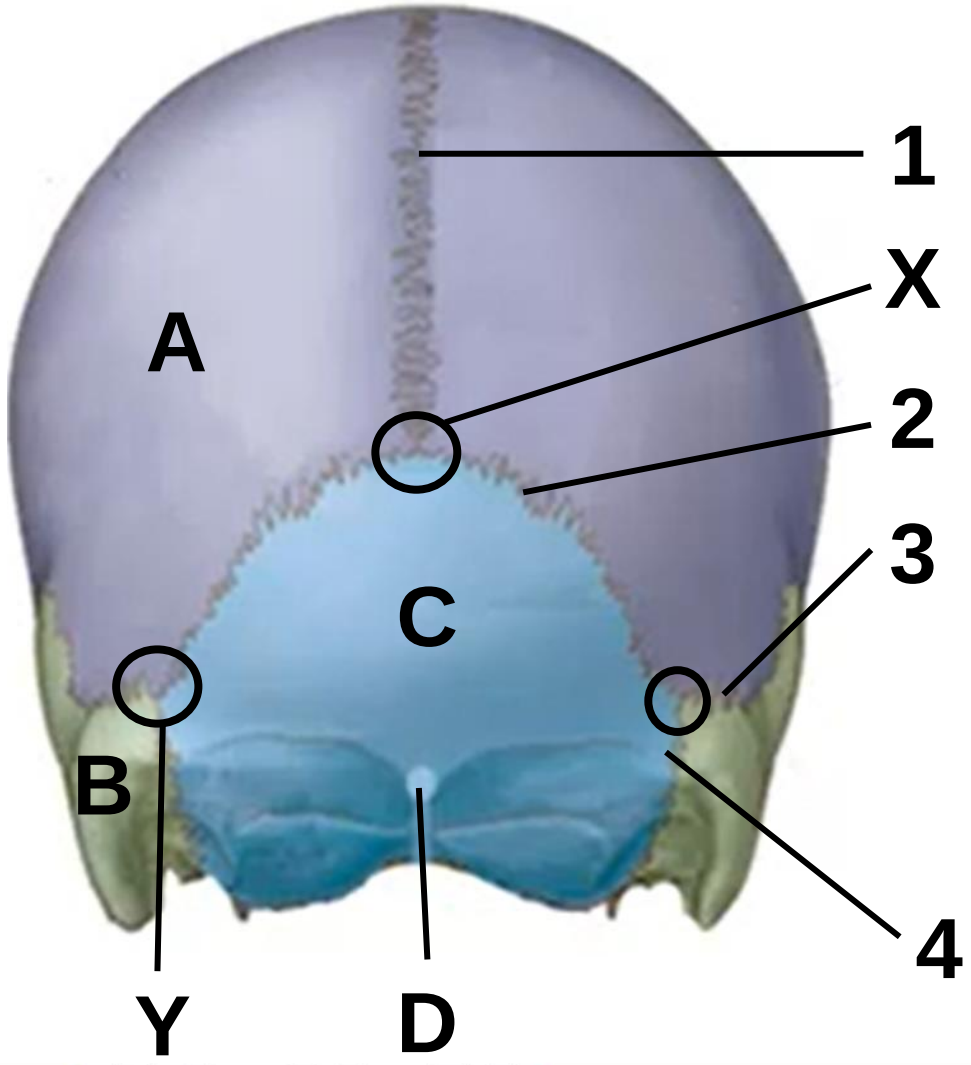
1. Coronal suture
2. Sagittal suture
3. Lambdoid suture

X. Bregma

Y. Parietal emissary foramen

Z. Lambda

Anatomy of the Skull



A. Parietal Bone

B. Mastoid process (temporal bone)

C. Occipital Bone

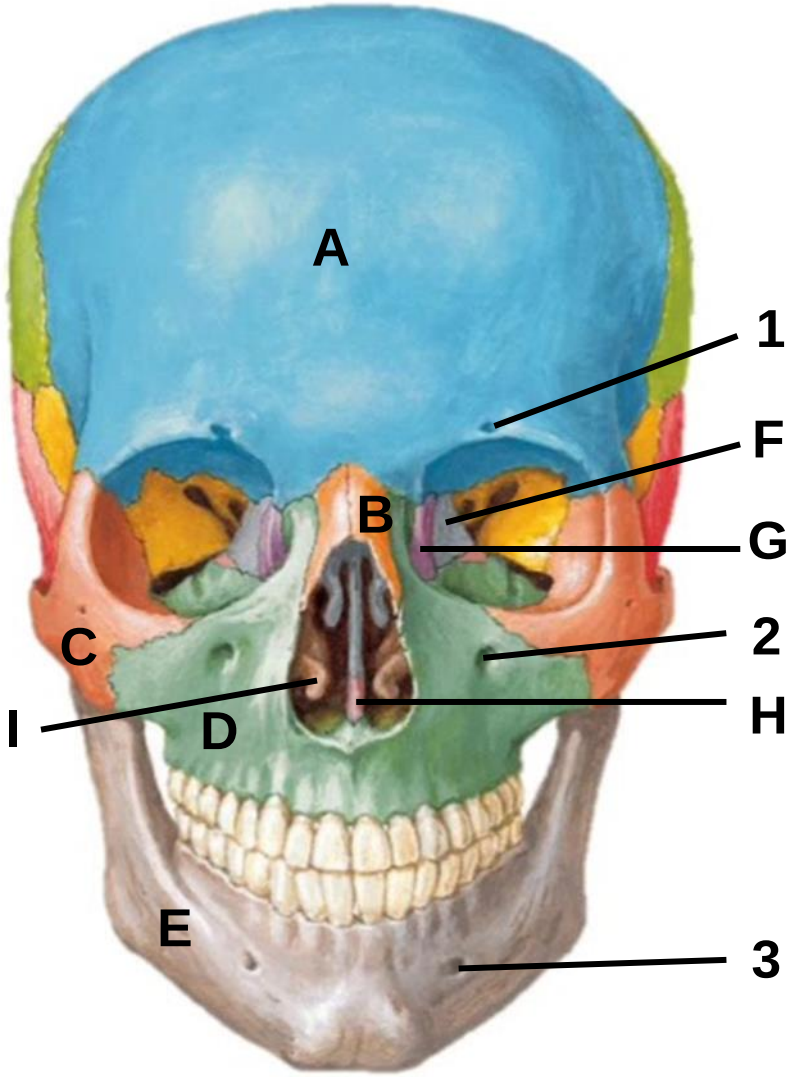
D. External Occipital Protuberance

1. Sagittal suture
2. Lamdoid suture
3. Parieto-mastoid suture
4. Occipito-mastoid suture

X. Lambda

Y. Asterion

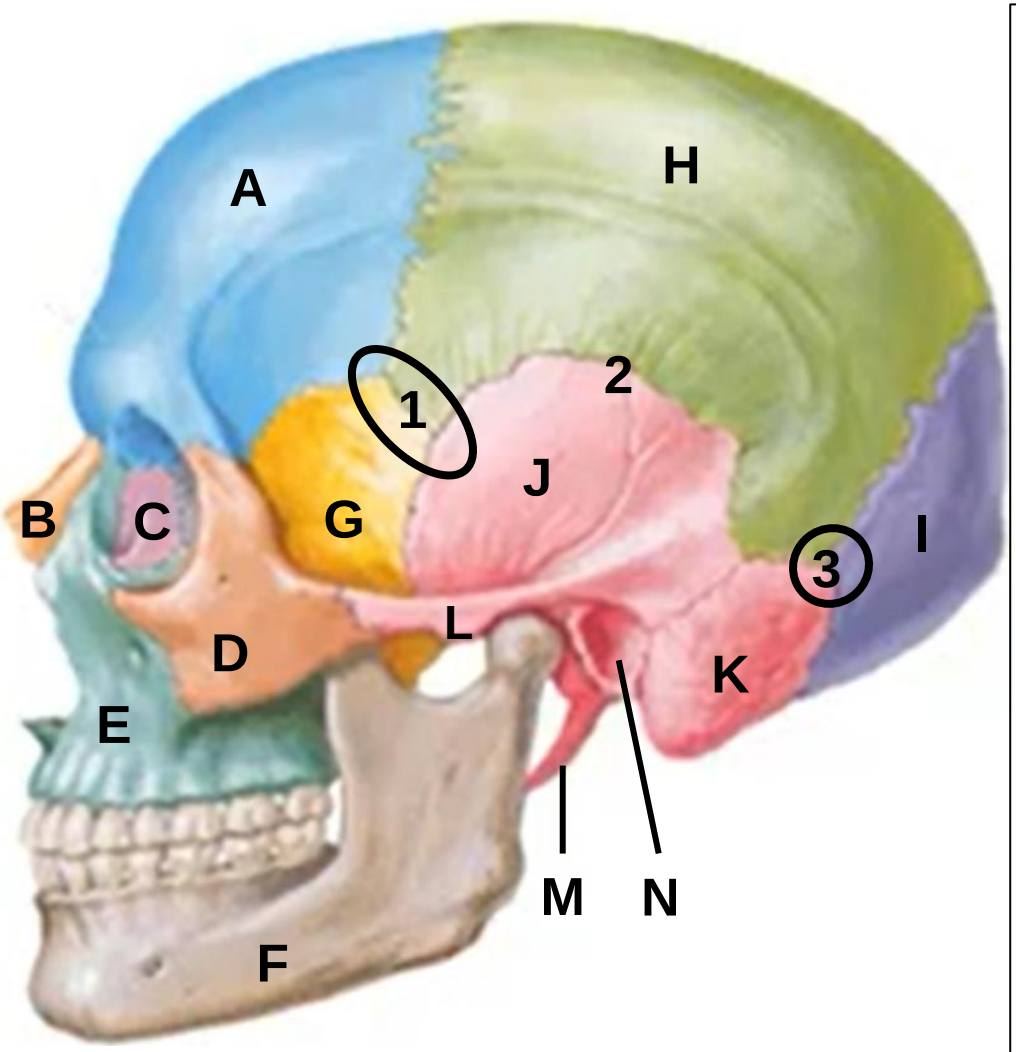
Anatomy of the Skull



A. Frontal Bone
B. Nasal Bone
C. Zygomatic Bone
D. Maxillary Bone
E. Mandible
F. Ethmoid bone
G. Lacrimal Bone
H. Nasal septum
I. Inferior nasal concha

1. Supraorbital foramen
2. Infraorbital foramen
3. Mental foramen

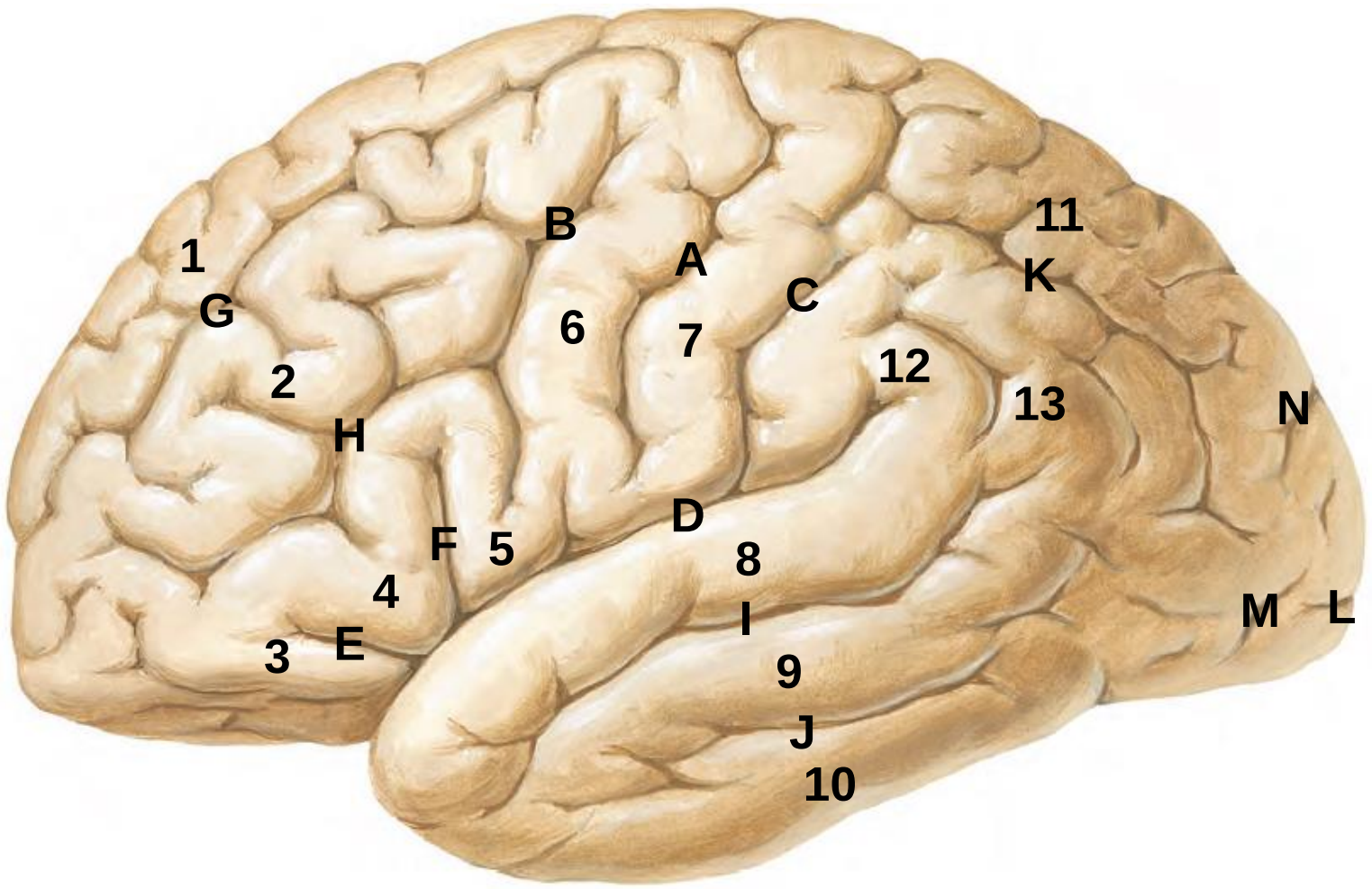
Anatomy of the Skull



A. Frontal Bone
B. Nasal Bone
C. Lacrimal Bone
D. Zygomatic Bone
E. Maxillary Bone
F. Mandible
G. Greater Wing of Sphenoid
H. Parietal Bone
I. Occipital Bone
J. Squamous part of temporal Bone
K. Mastoid process
L. Zygomatic arch
M. Styloid process
N. External auditory meatus

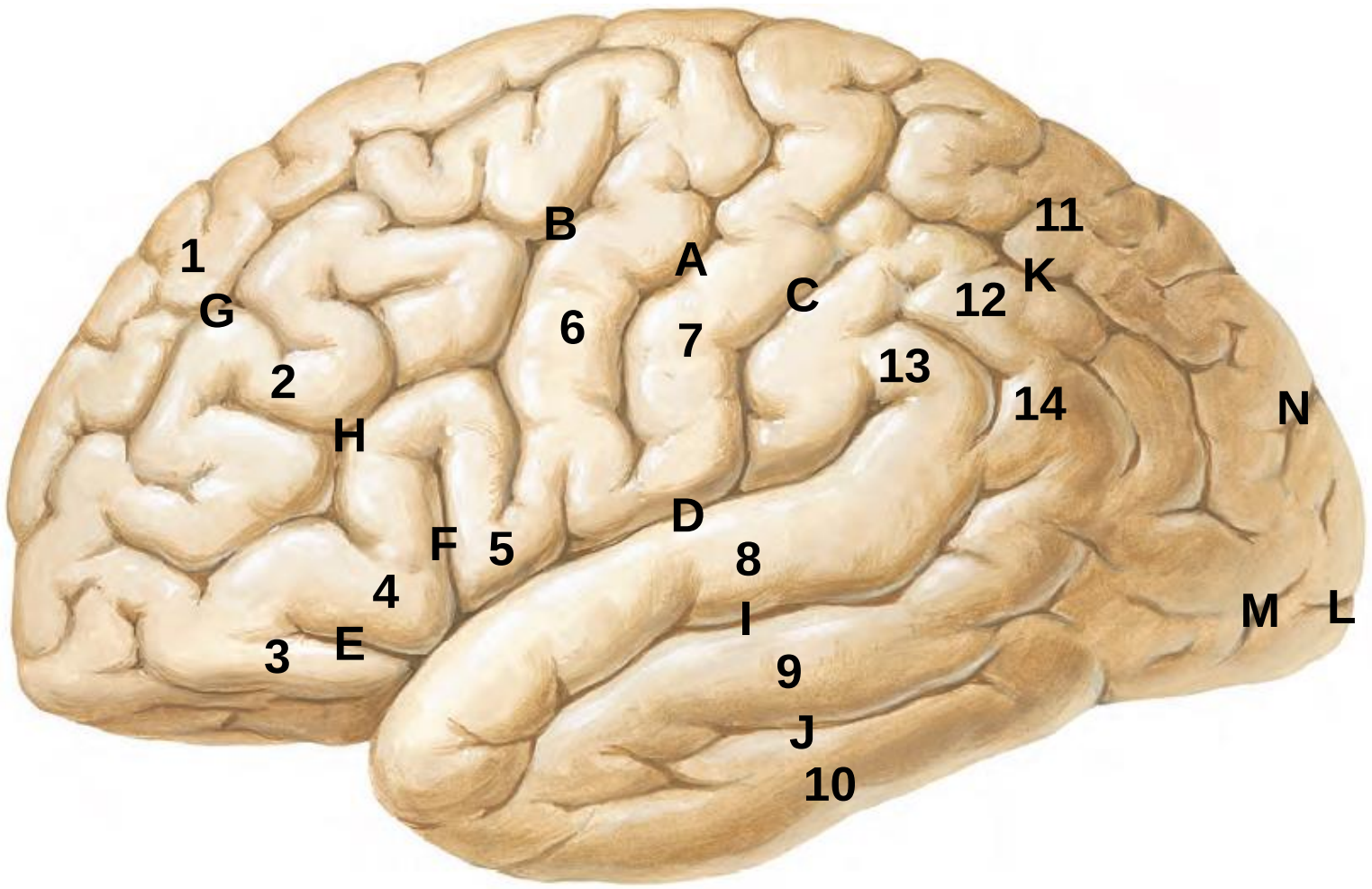
1. Pterion
2. Squamosal suture
3. Asterion

Cerebral Hemispheres: Sulci



A. Central Sulcus
B. Precentral sulcus
C. Postcentral sulcus
D. Posterior ramus of lateral sulcus
E. Anterior ramus of lateral sulcus
F. Ascending ramus of lateral sulcus
G. Superior frontal sulcus
H. Inferior frontal sulcus
I. Superior temporal sulcus
J. Inferior temporal sulcus
K. Intraparietal sulcus
L. Calcarine sulcus
M. Lunate sulcus
N. Parieto-occipital sulcus

Cerebral Hemispheres: Gyri

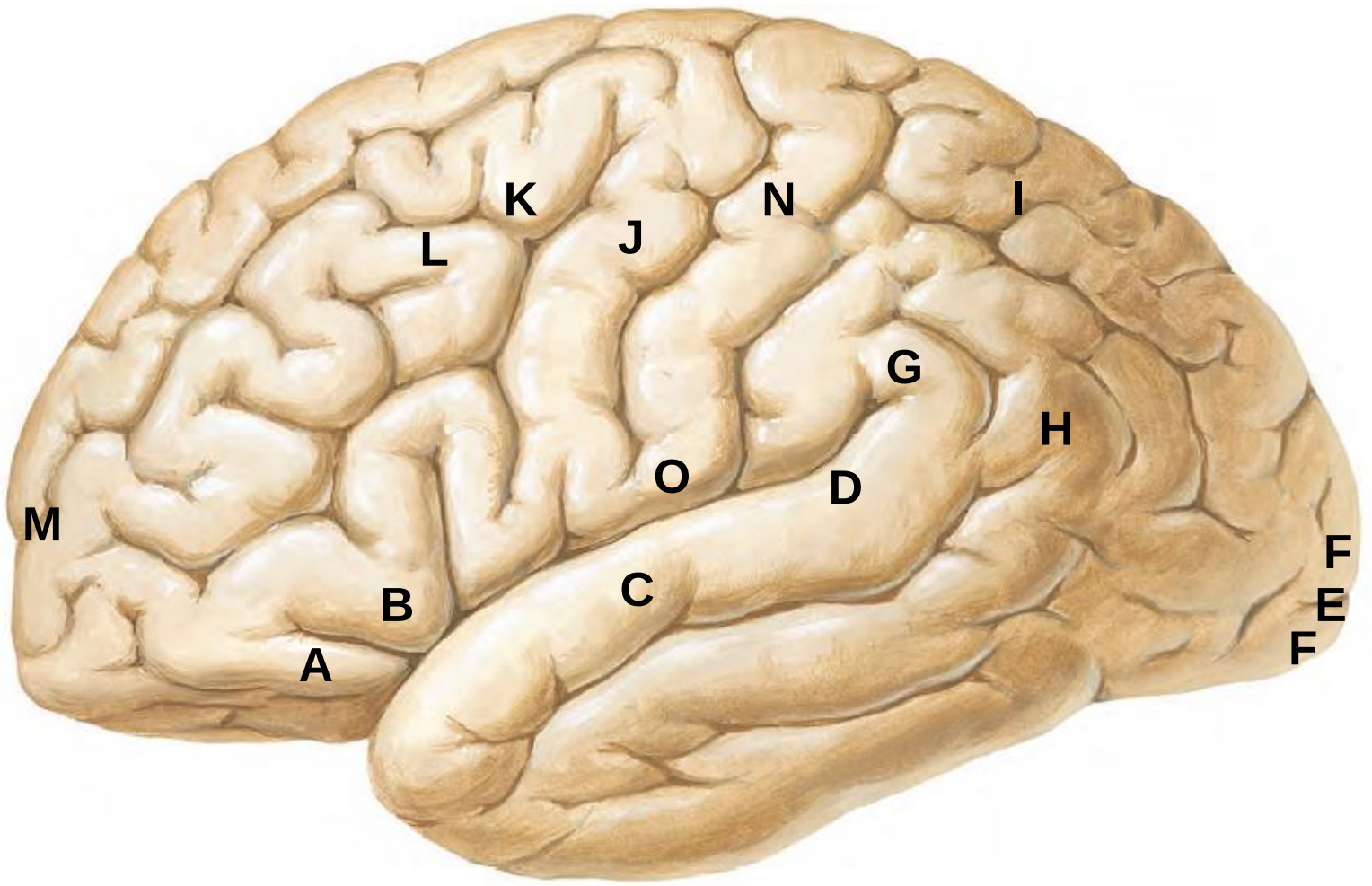


1. Superior frontal gyrus
2. Middle frontal gyrus
3. Orbital part
4. Triangular part
5. Opercular part

Inferior frontal gyrus

6. Precentral gyrus
7. Postcentral gyrus
8. Superior temporal gyrus
9. Middle temporal gyrus
10. Inferior temporal gyrus
11. Superior parietal lobule
12. Inferior parietal lobule
13. Supramarginal gyrus
14. Angular gyrus

Cerebral Hemispheres: Brain areas



A. Area 44
B. Area 45

} Broca's area } Motor speech area

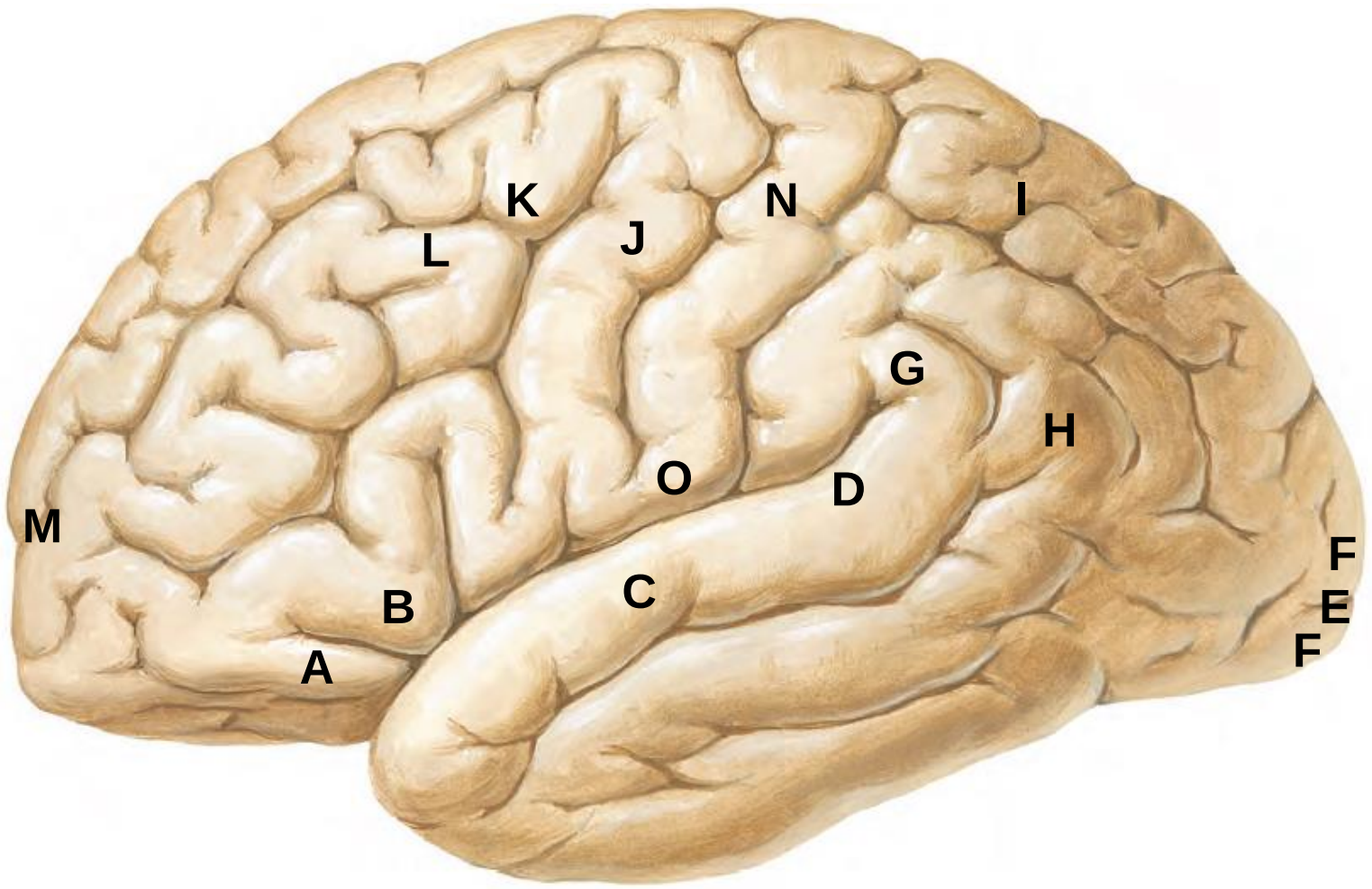
C. Area 41, 42 → Heschl's area → Primary auditory area
D. Area 22 → Wernicke's area → Auditory association area → Sensory speech area
E. Area 17 → Primary visual area
F. Area 18, 19 → Visual association area

G. Area 40
H. Area 39
I. Area 5,7

} Somatosensory association area

J. Area 4 → Primary motor area

Cerebral Hemispheres: Brain areas



K. Area 6 → Premotor area

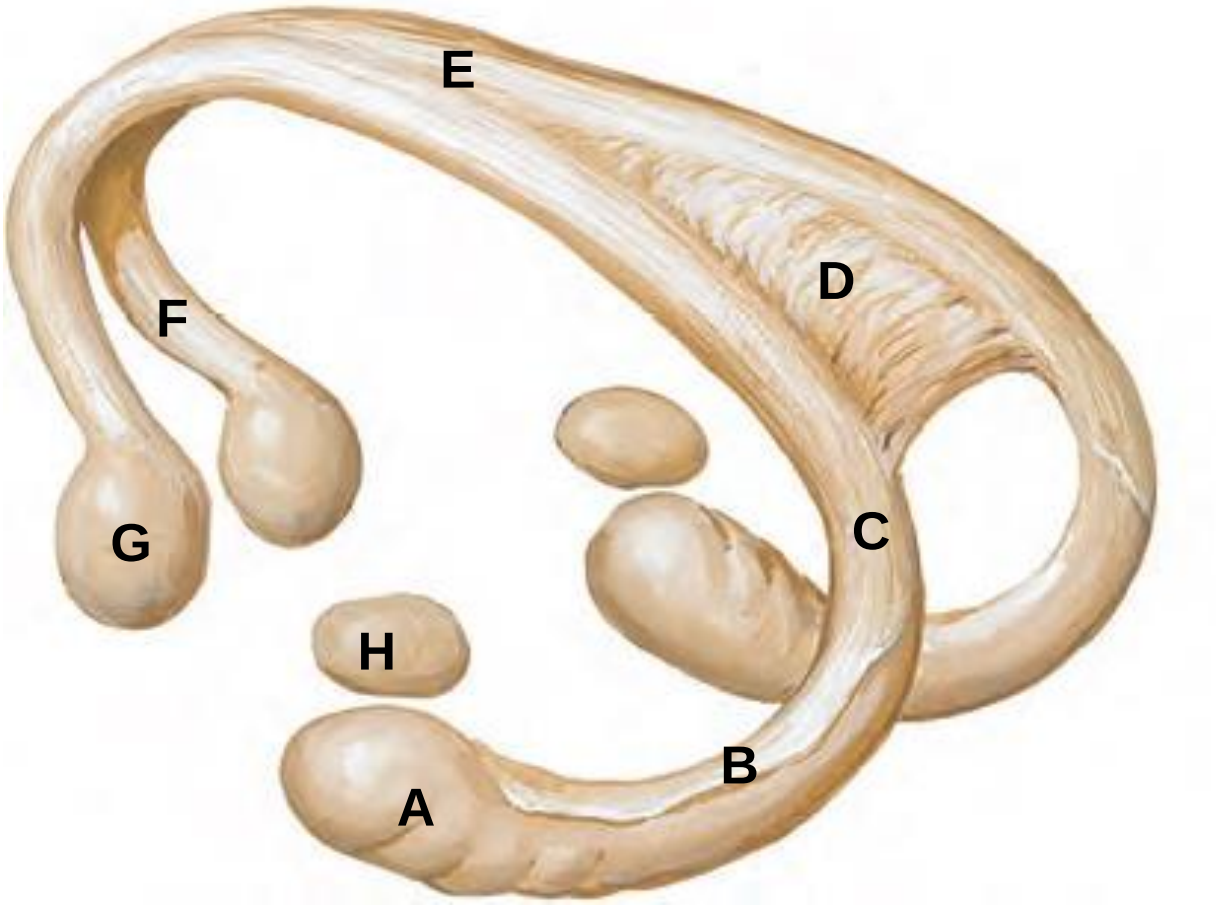
L. Area 8 → Motor eye field area

M. Area 9, 10, 11, 12 → Prefrontal cortex → Personality center

N. Area 3, 1, 2 → Primary sensory area

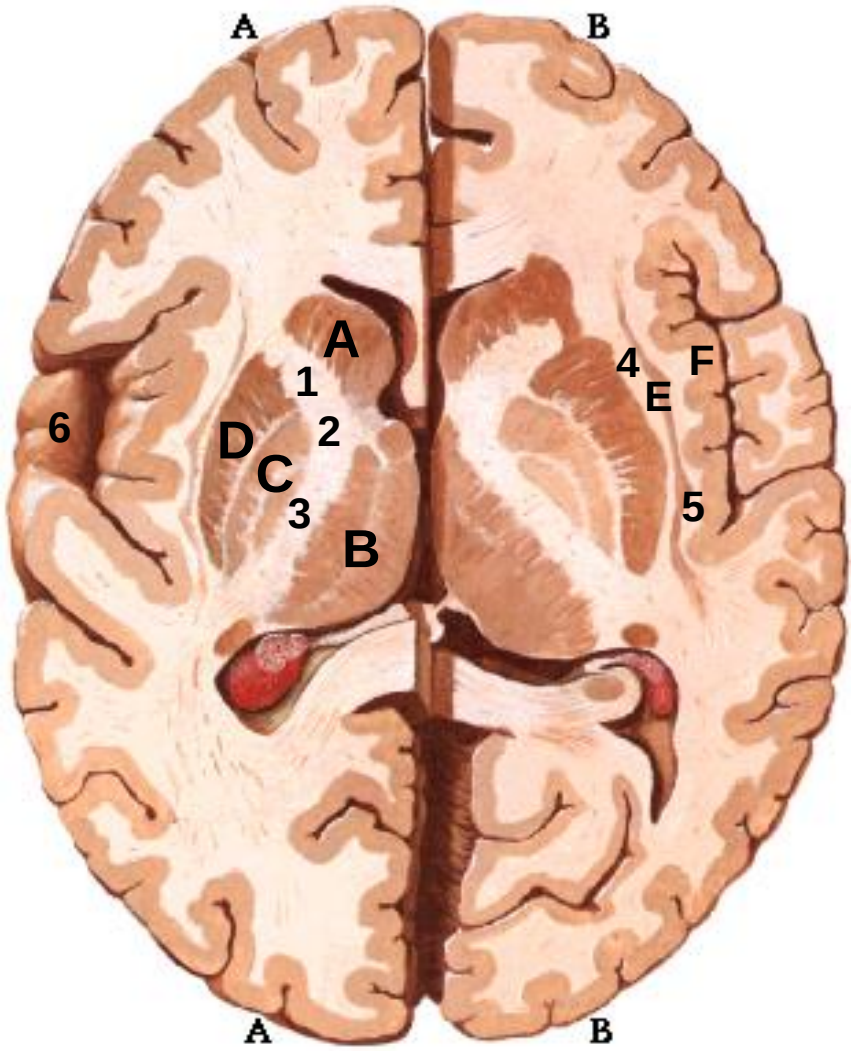
O. Area 43 → Primary gustatory area

Cerebral Hemispheres: Limbic System



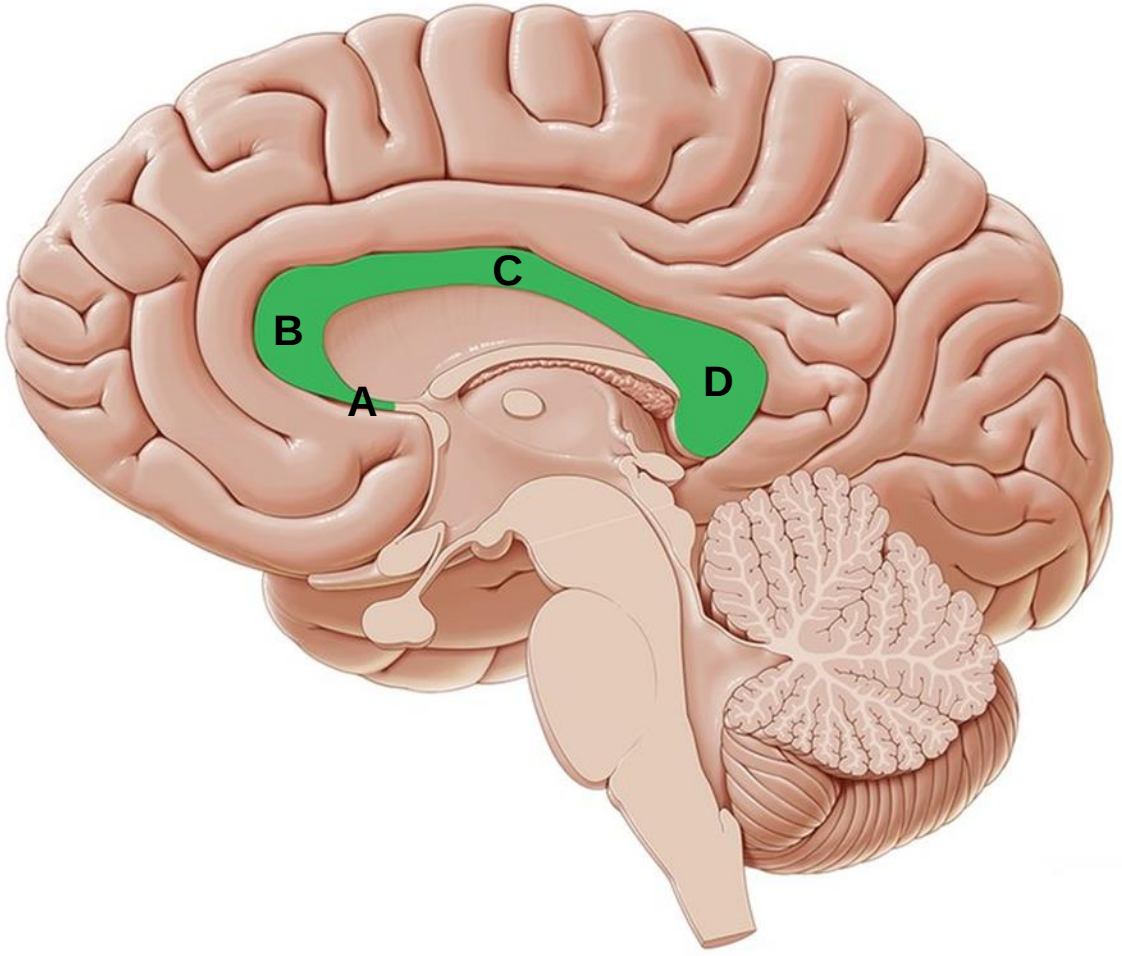
A. Hippocampus
B. Fimbria of fornix
C. Crus of fornix
D. Commissure of fornix
E. Body of fornix
F. Anterior column of fornix
G. Mammillary body
H. Amygdaloid nucleus

Cerebral Hemispheres: Basal Ganglia



A. Head of Caudate nucleus
B. Thalamus
C. Globus pallidus
D. Putamen
E. Claustrum
F. Insula
1. Anterior limb of internal capsule
2. Genu of internal capsule
3. Posterior limb of internal capsule
4. External capsule
5. Extreme capsule
6. Lateral sulcus

Cerebral Hemispheres: Basal Ganglia



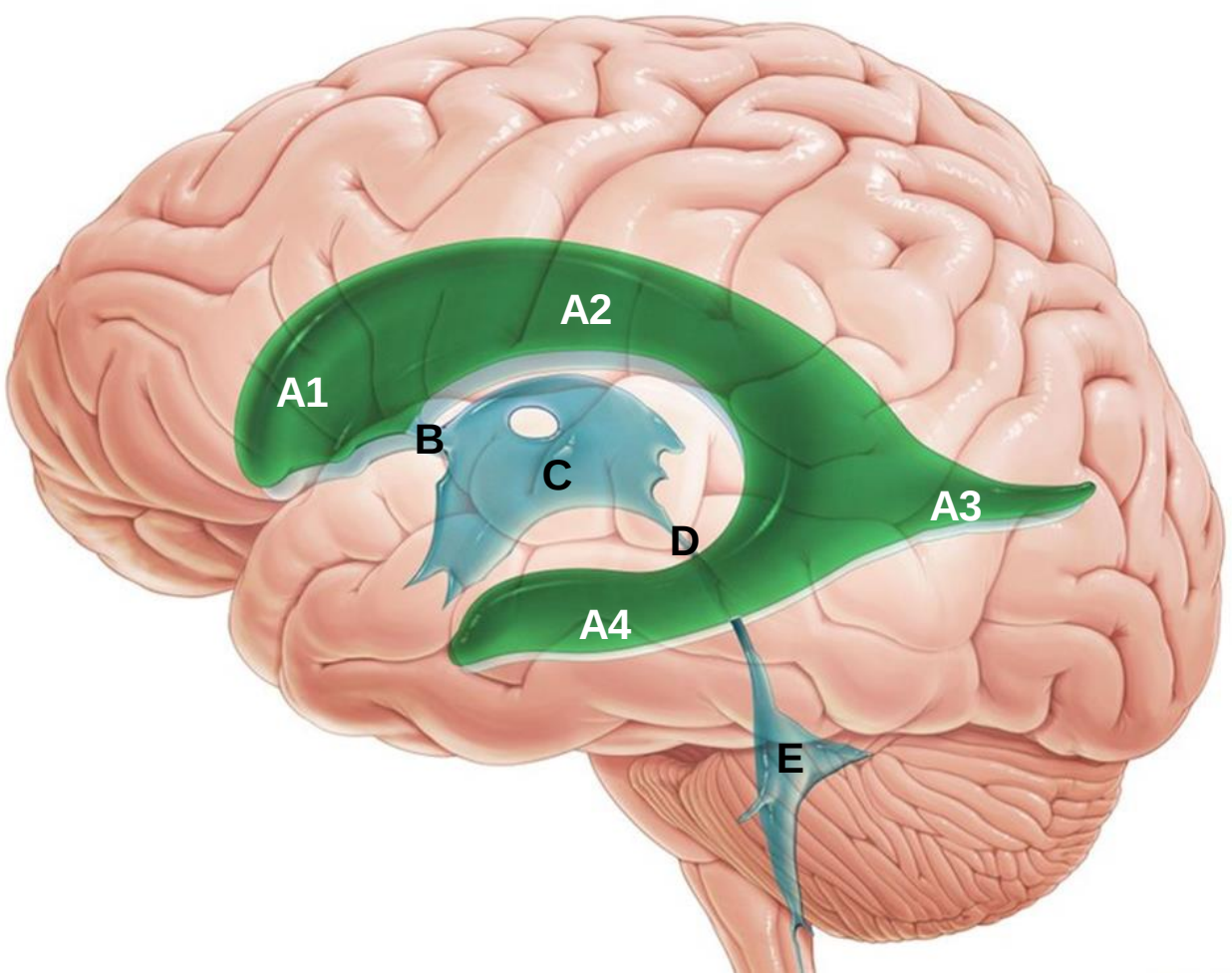
Corpus Callosum

A. Rostrum
B. Genu
C. Body
D. Splenium

Connections

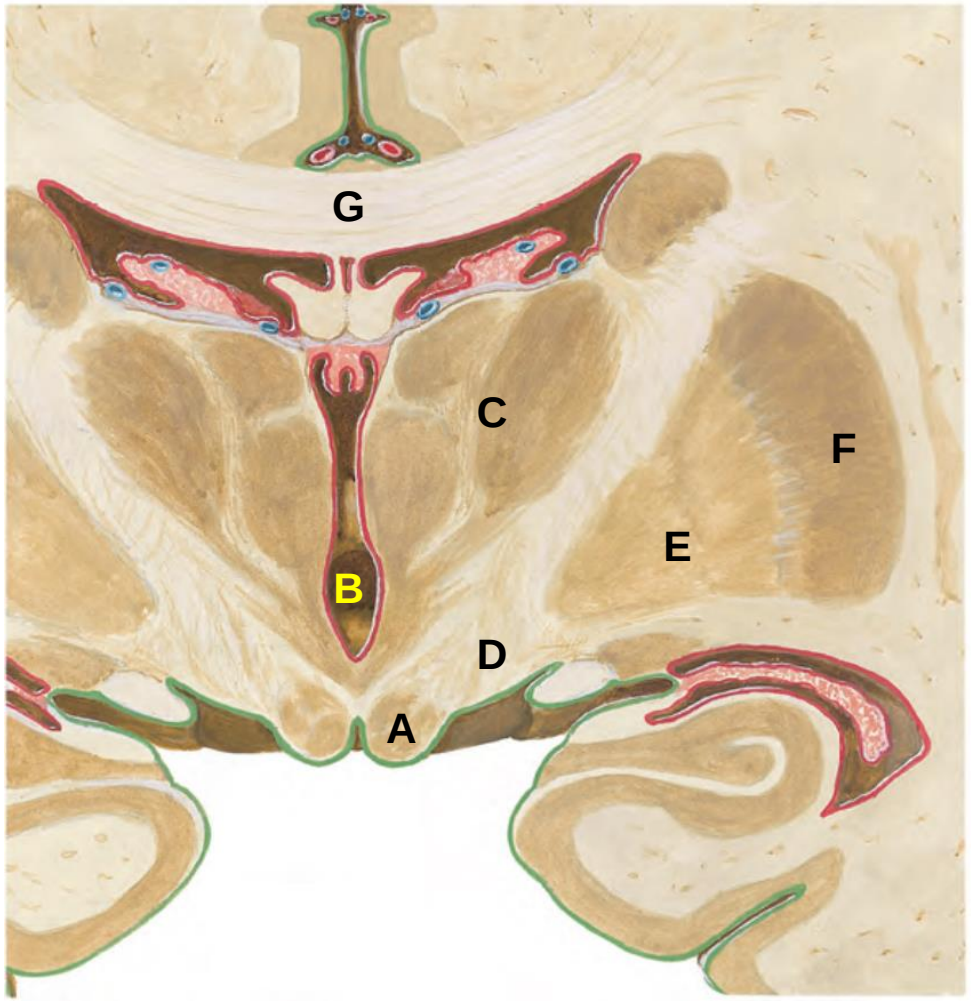
A. Rostrum → Lamina Terminalis
B. Genu → Forceps minor
C. Body → Tapetum
D. Splenium → Forceps major

Cerebral Hemispheres: Ventricles



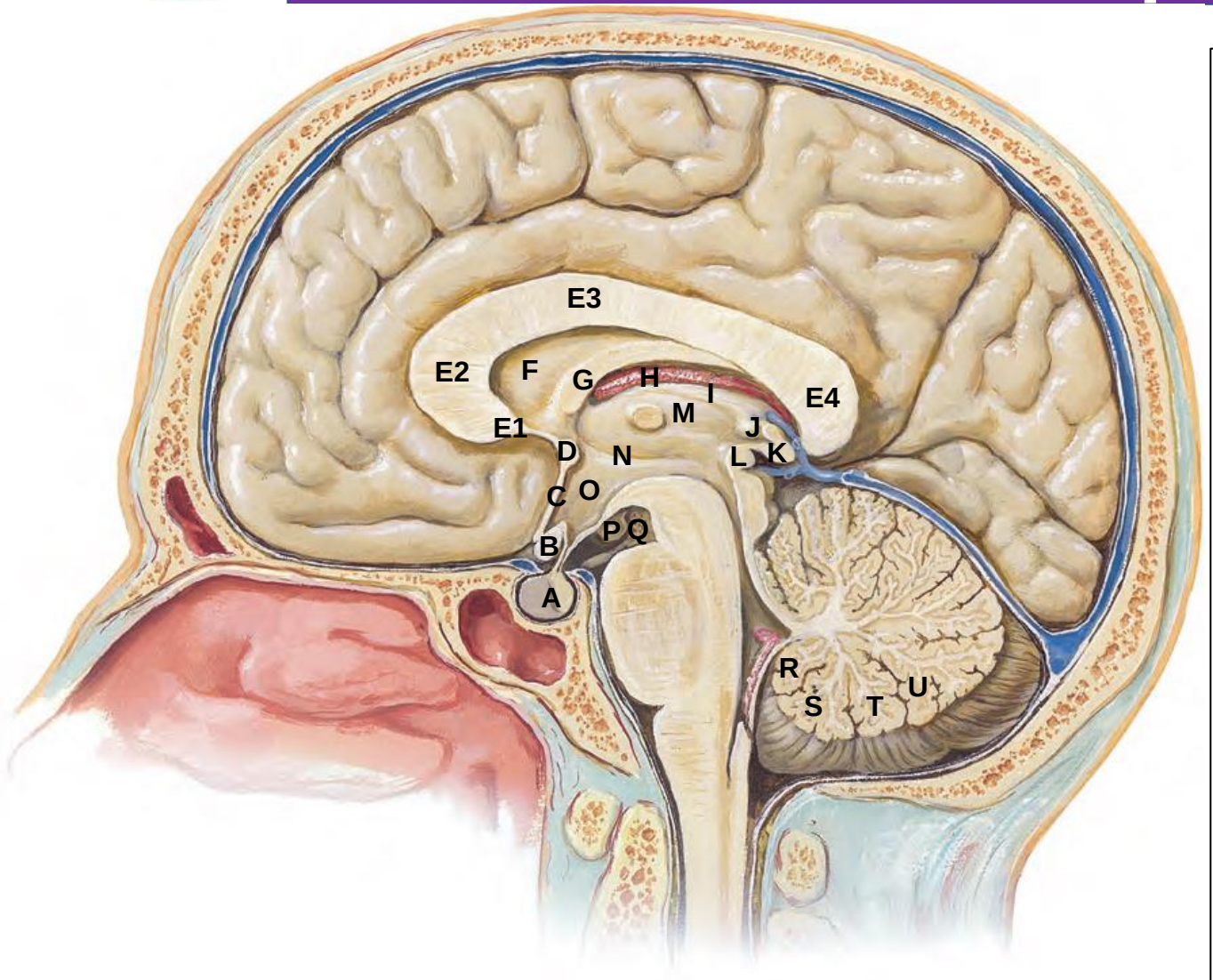
A1. Anterior horn of lateral ventricle
A2. Body of lateral ventricle
A3. Posterior horn of lateral ventricle
A4. Inferior horn of lateral ventricle
B. Interventricular foramen of Monro
C. Third ventricle
D. Aqueduct of Sylvius (Cerebral Aqueduct)
E. Fourth ventricle: Openings?
Foramen of Magendie (Midline)
Foramen of Lushka (Lateral)

Diencephalon



A. Mammillary body
B. Third ventricle
C. Thalamus
D. Subthalamus
E. Globus pallidus } Lentiform nucleus
F. Putamen }
G. Corpus callosum

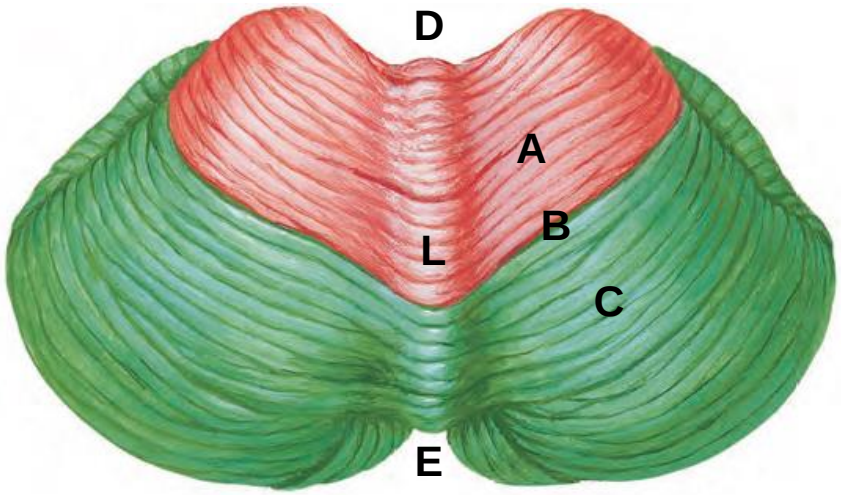
Diencephalon

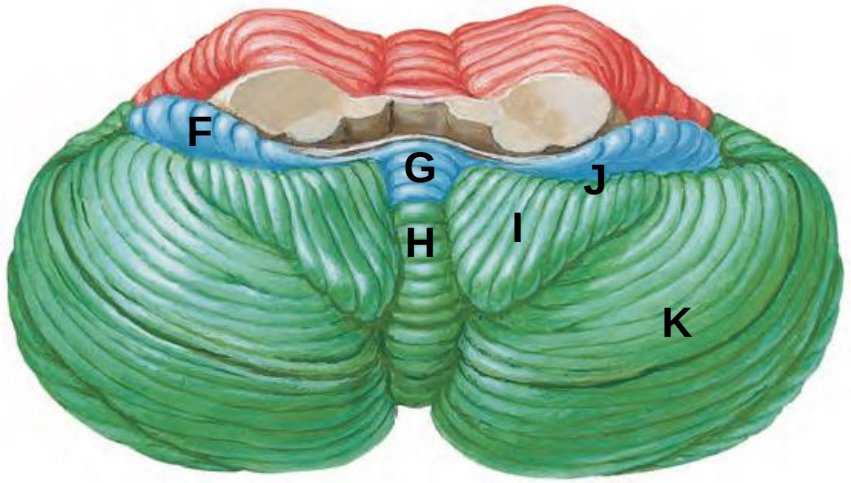


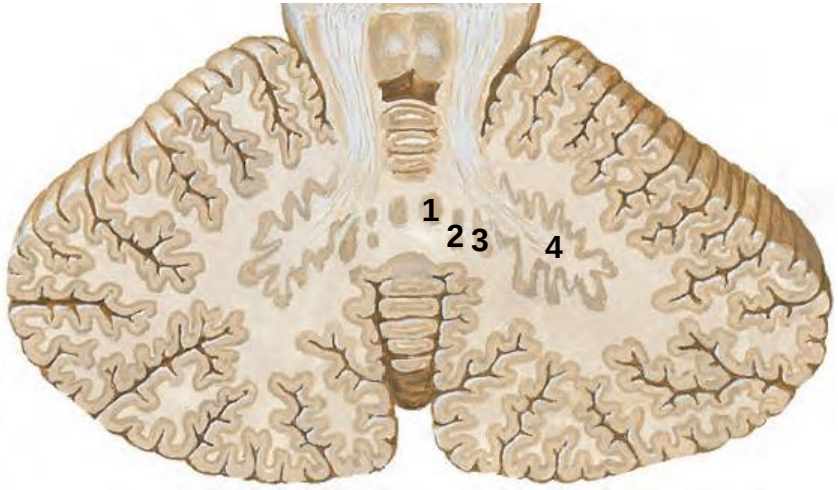
A. Pituitary gland
B. Optic chiasma
C. Lamina Terminalis
D. Anterior commissure
E1. Rostrum
E2. Genu
E3. Body
E4. Splenium
} Corpus Callosum
F. Septum pellucidum
G. Fornix
H. Tela choroidae of 3rd ventricle
I. Stria medullaris thalami
J. Habenular nucleus
K. Pineal gland

L. Posterior commissure
M. Thalamus
N. Hypothalamic sulcus
O. Hypothalamus
P. Mammillary body
Q. Posterior perforated substance
R. Nodule
S. Uvula
T. Pyramid
U. Tuber
} Inferior vermis of cerebellum

Cerebellum





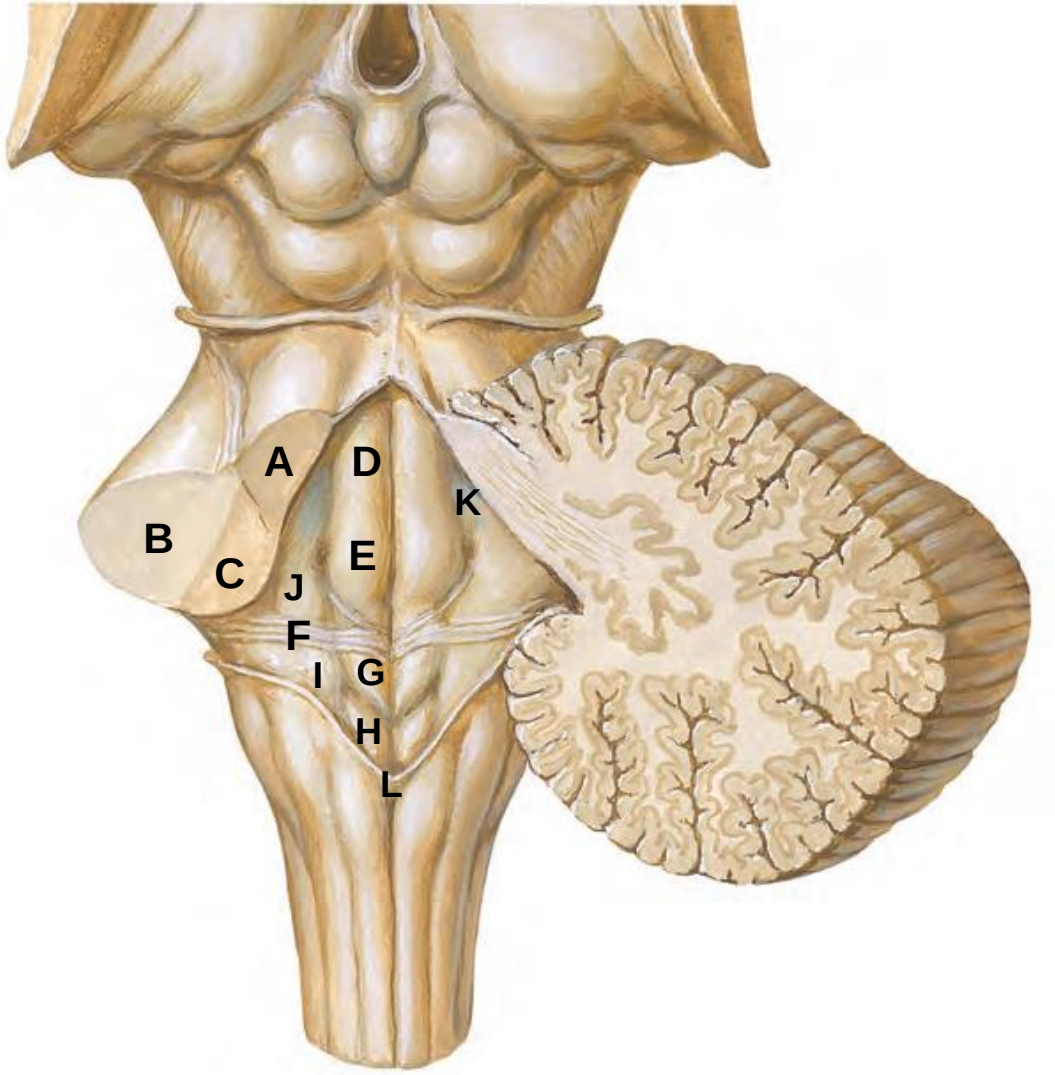


A. Anterior lobe
B. Primary fissure
C. Posterior lobe
D. Anterior notch → Brainstem
E. Posterior notch → Falx cerebelli

F. Flocculus
G. Nodule
H. Uvula
I. Cerebellar Tonsils
J. Posterolateral fissure
K. Posterior lobe (of cerebellar hemisphere)
L. Vermis of cerebellum

1. Fastigial nucleus
2. Globose nucleus
3. Emboliform nucleus
4. Dentate nucleus

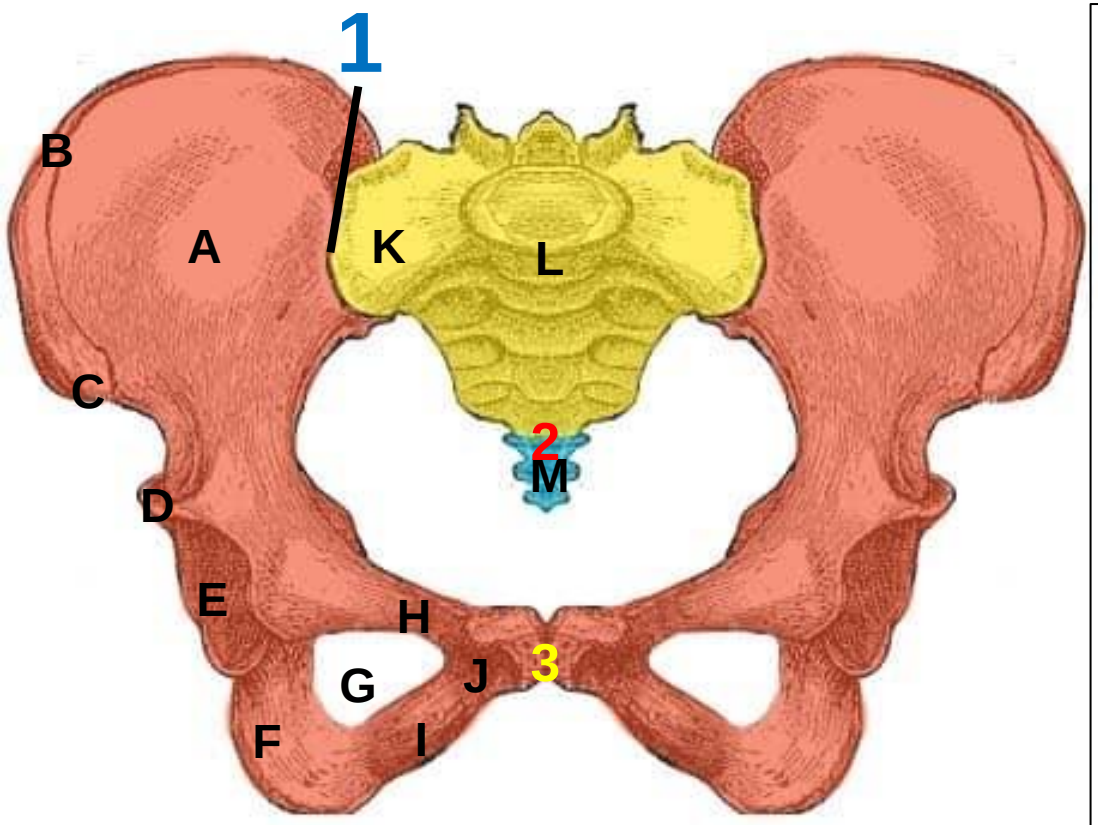
4th Ventricle



A. Superior Cerebellar Peduncle
B. Middle Cerebellar Peduncle
C. Inferior Cerebellar Peduncle
D. Medial eminence
E. Facial colliculus
F. Stria Medullaris
G. Hypoglossal trigone
H. Vagal trigone
I. Vestibular area of medulla
J. Vestibular area of pons
K. Locus caeruleus
L. Obex (Area postrema)


TIME
FOR A
BREAK!

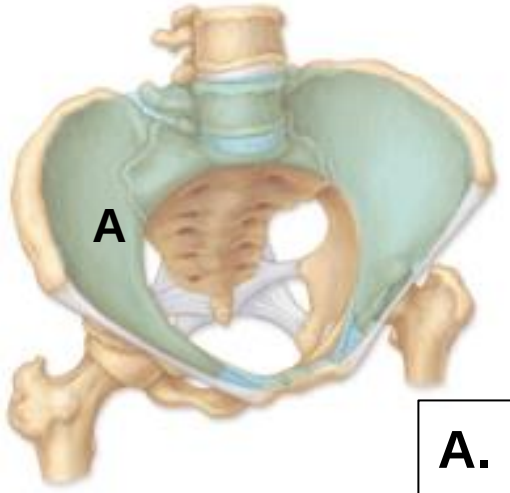
Bony Pelvis



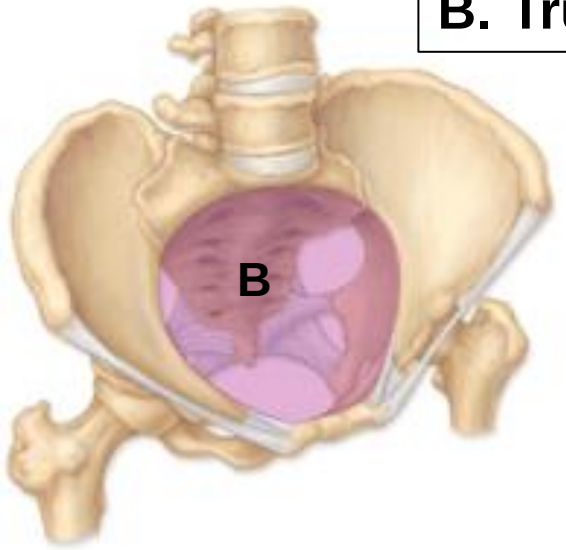
A. Iliac fossa of ileum
B. Iliac crest of ilium
C. Anterior Superior Iliac spine
D. Anterior Inferior iliac spine
E. Acetabulum
F. Ischial tuberosity of ischium
G. Obturator foramen
H. Superior pubic ramus
I. Inferior pubic ramus
J. Body of pubis
K. Ala of sacrum
L. Promontory of sacrum
M. Coccyx

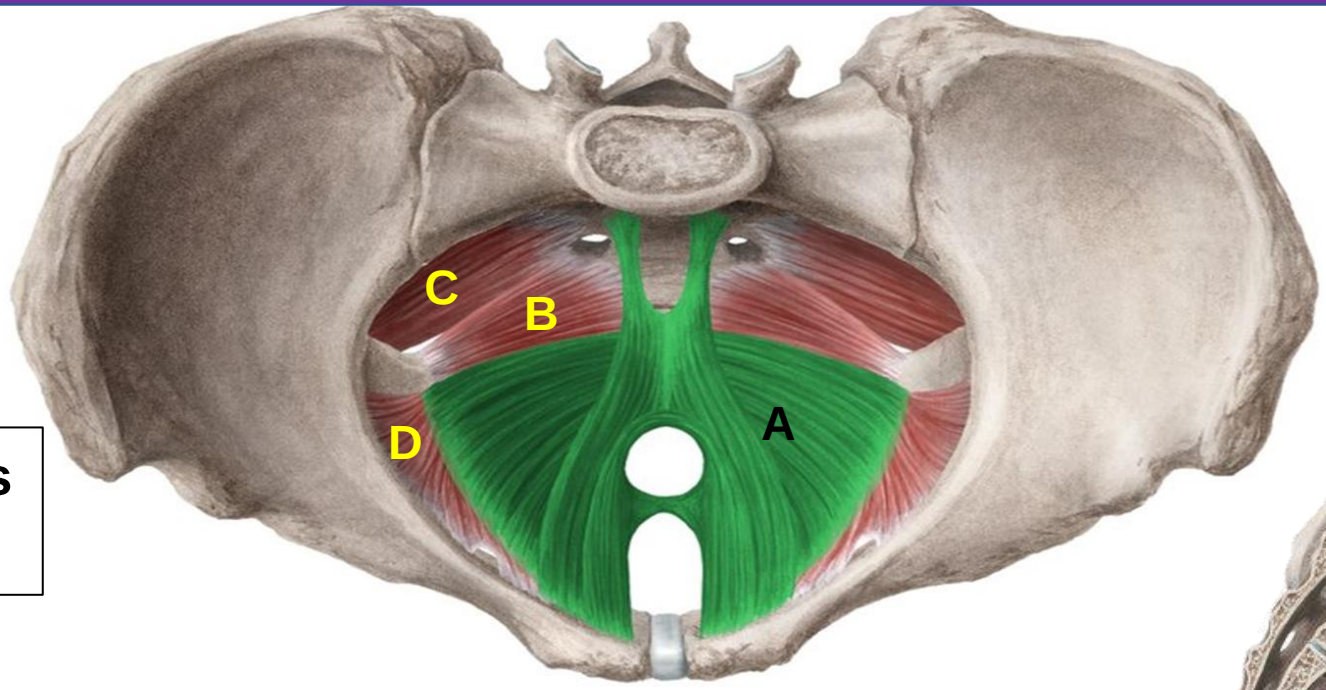
1. Sacroiliac joint
   Synovial plane
2. Sacrococcygeal joint
   Secondary cartilaginous
3. Symphysis pubis
   Secondary cartilaginous

Muscles of the Pelvis

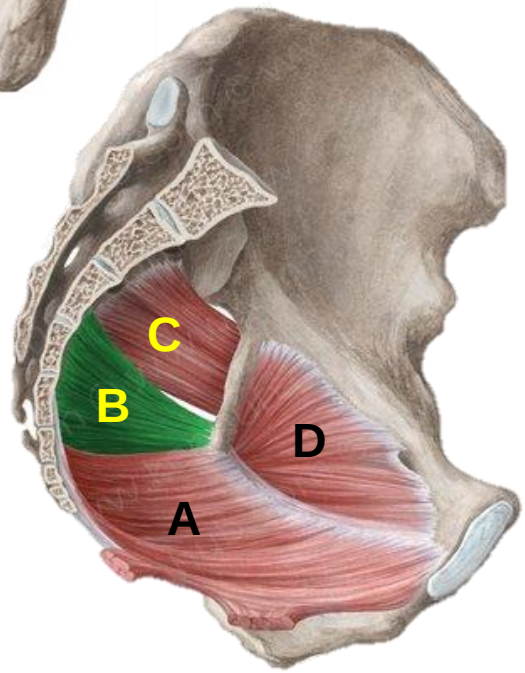


A. False pelvis
B. True pelvis

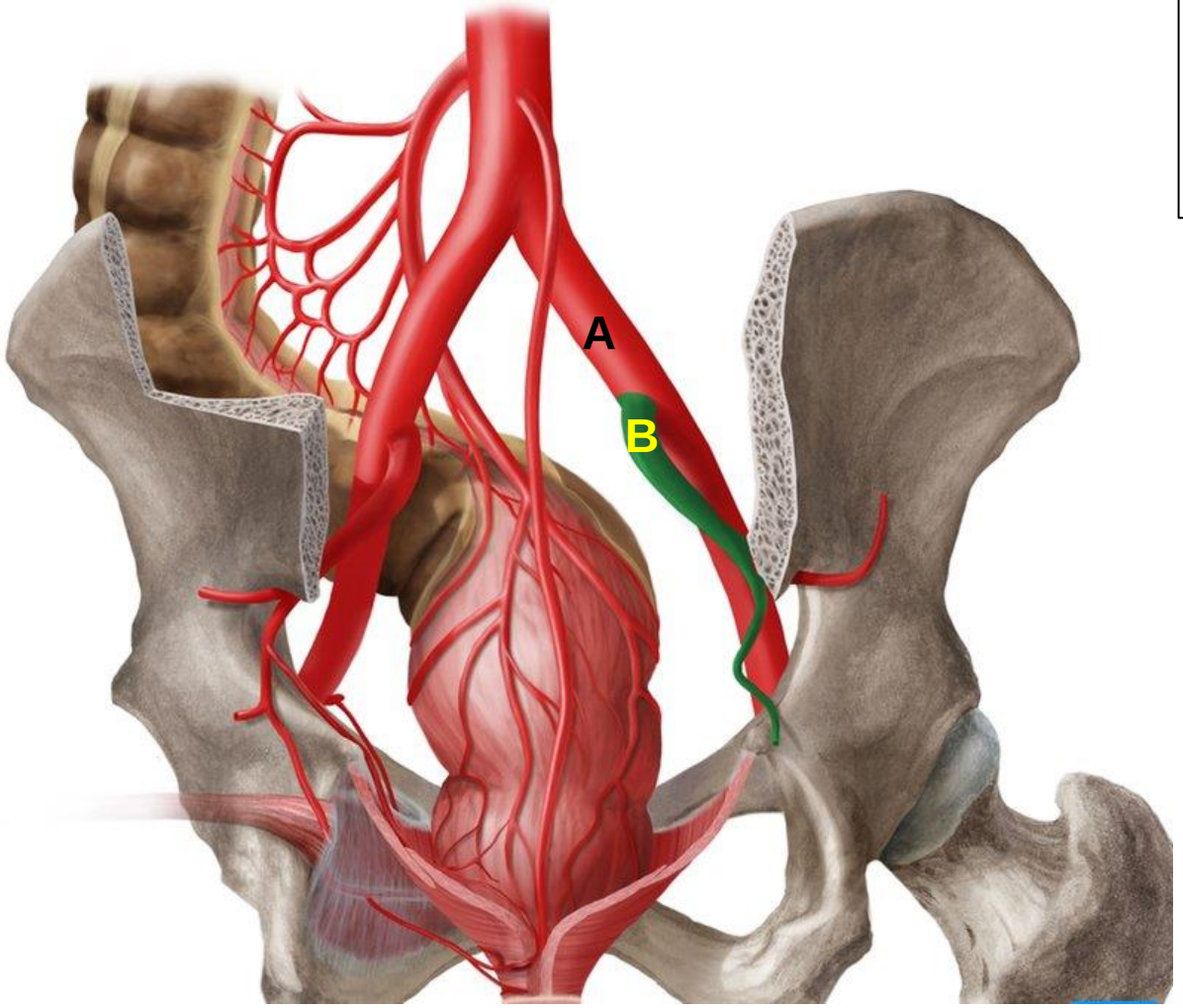




A. Levator Ani Muscle
B. Coccygeus Muscle
C. Piriformis muscle
D. Obturator Internus Muscle



Arteries of the Pelvis



A. Common Iliac Artery
B. Internal Iliac Artery
Origin, Termination, Branches.

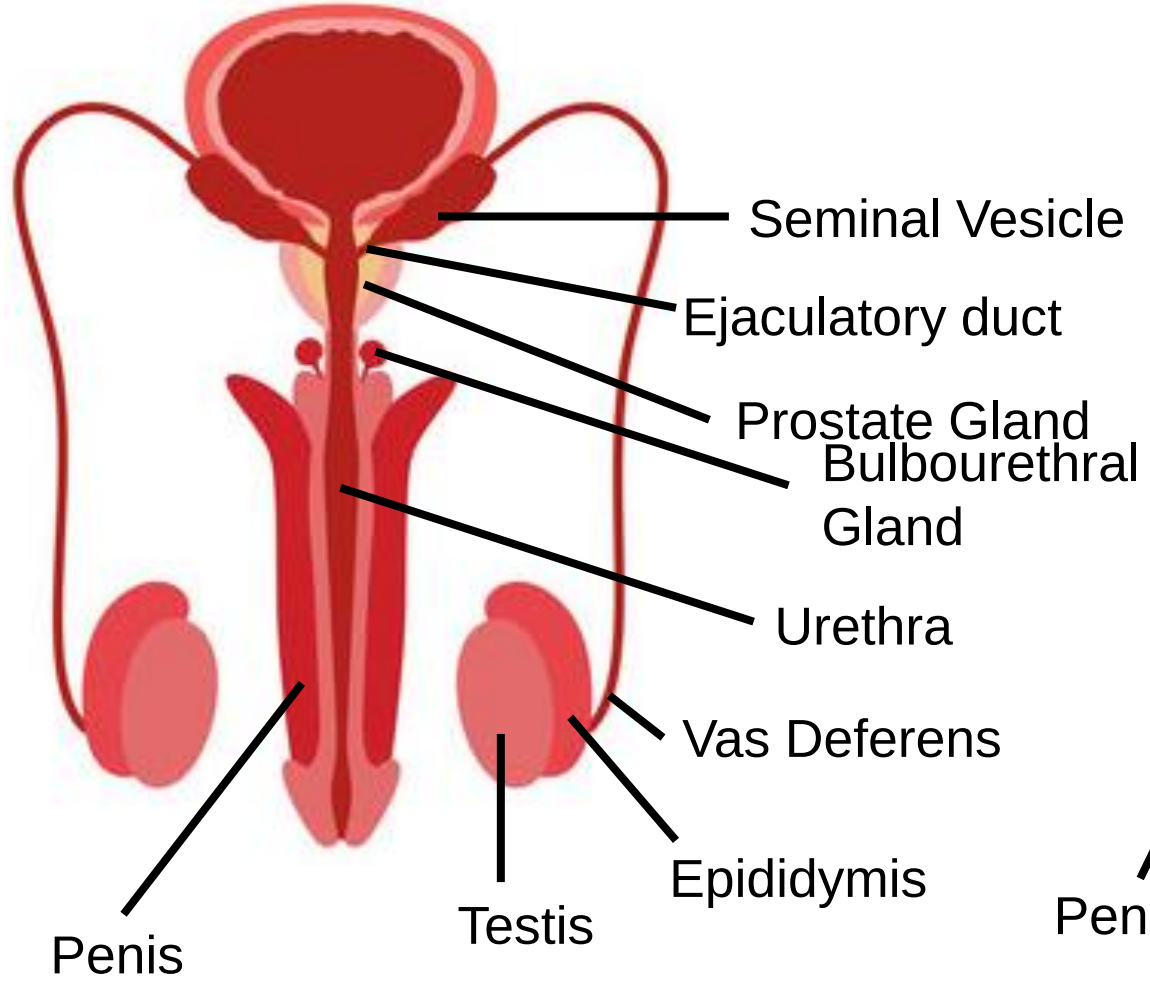
O I MIIS U Very much

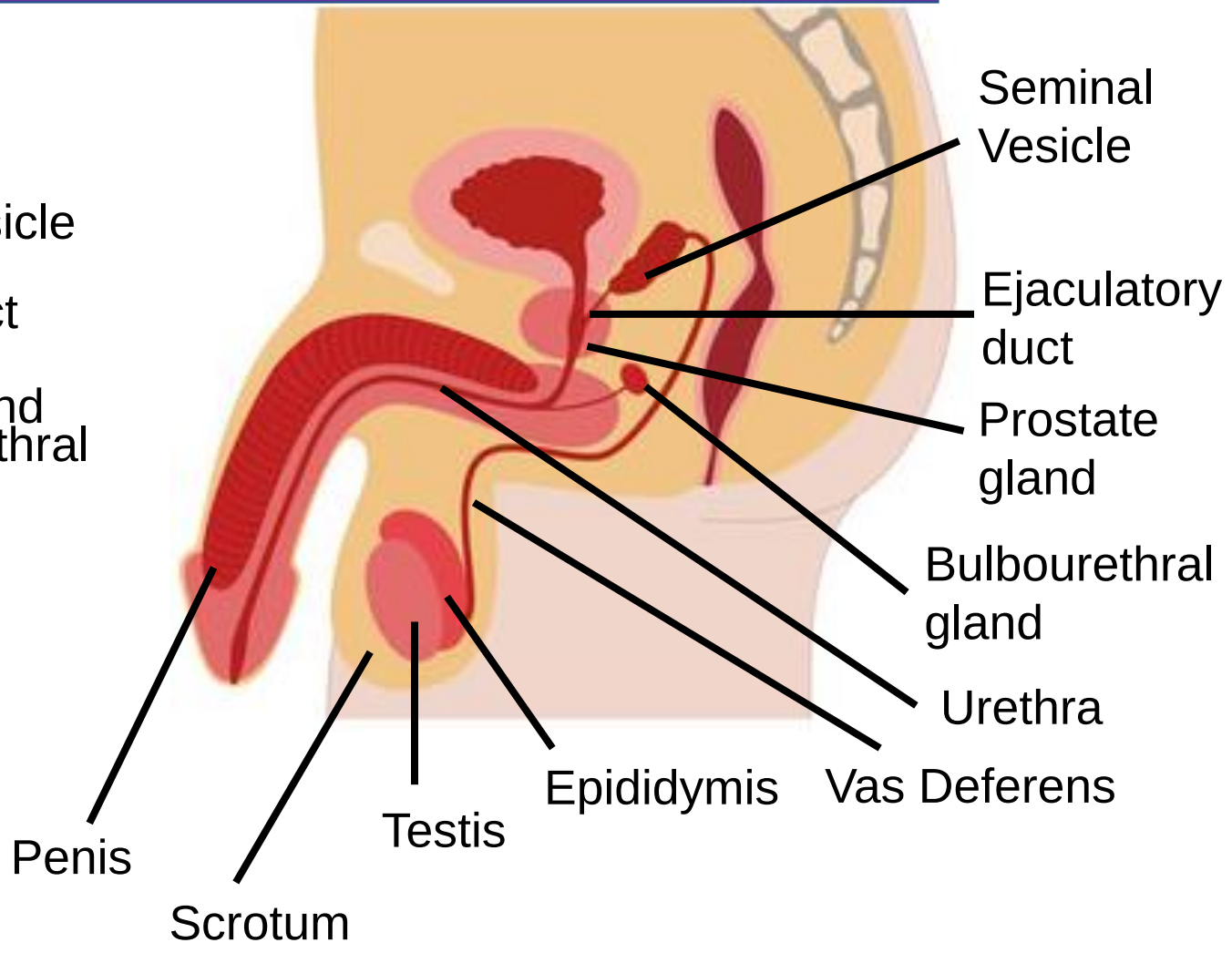
O=Obturator Artery
I=Inf Gluteal Artery
M=Middle Rectal Artery
I=Internal Pudental Artery
IS=Inf and Superior Vesical
U=Umblical &UterineArtery
V=Vaginal Artery

so i need PILS to sleep

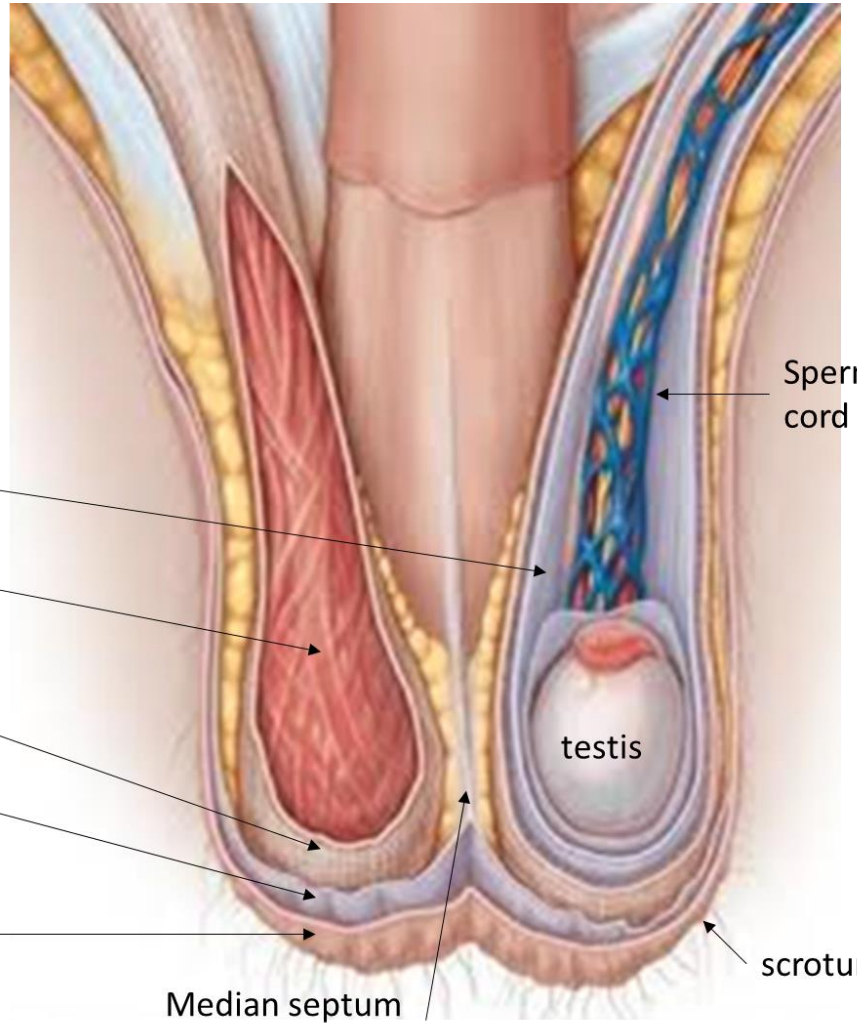
P=Post Division
I=Iliolumbar artery
L=Lateral Sacral artery
S=Superior Gluteal Artery

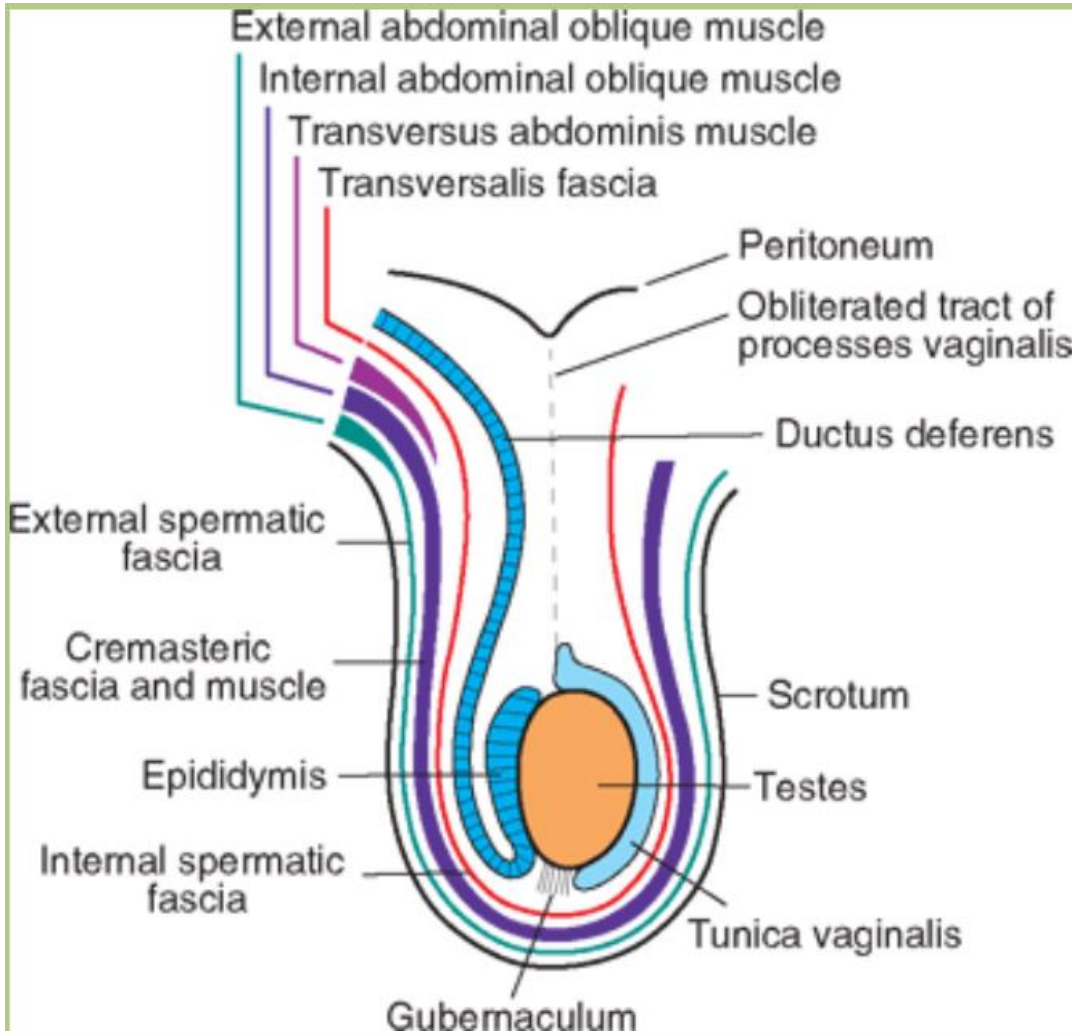
Male Genital System



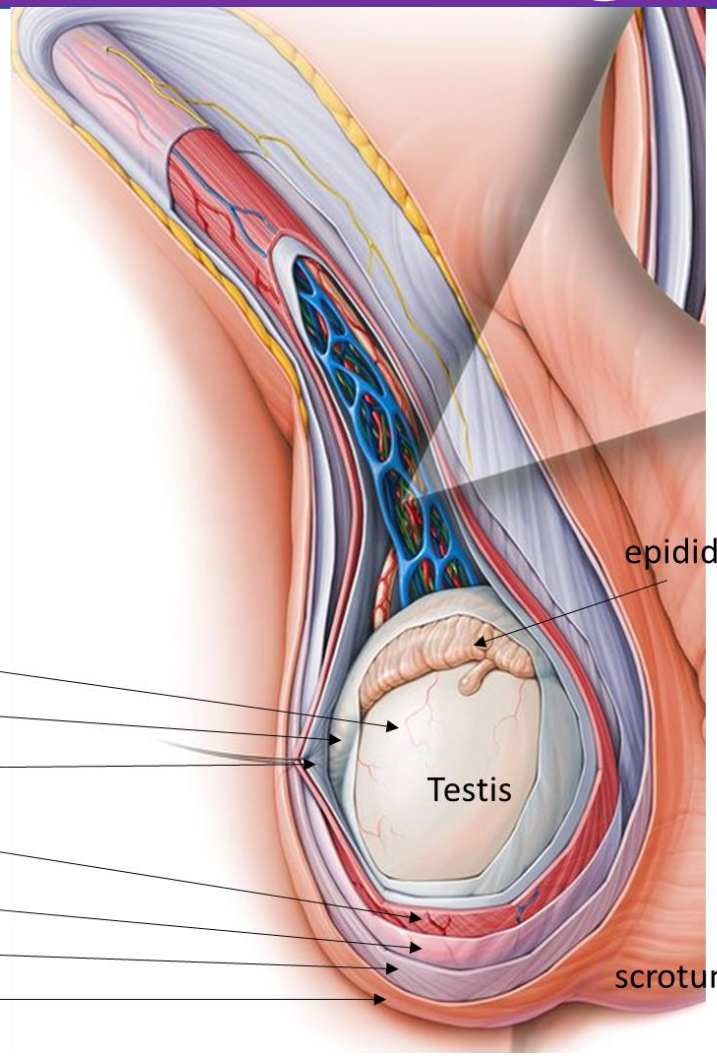


Testis Coverings

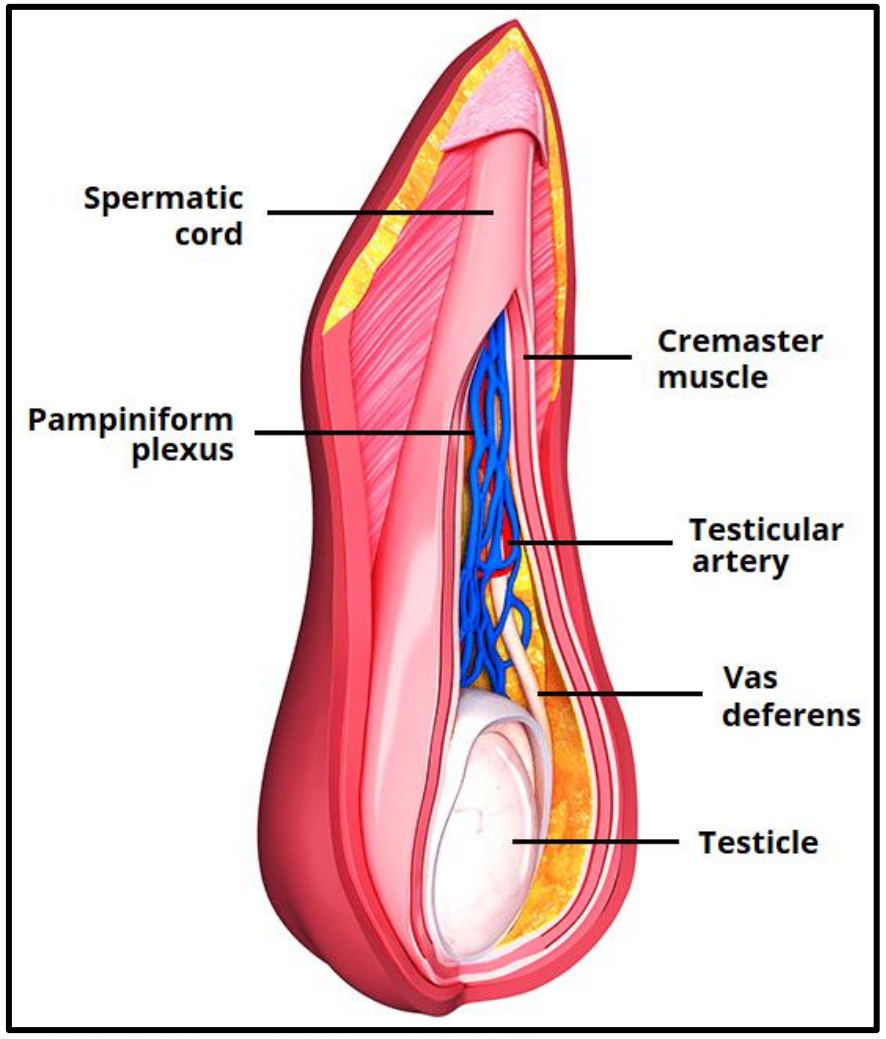


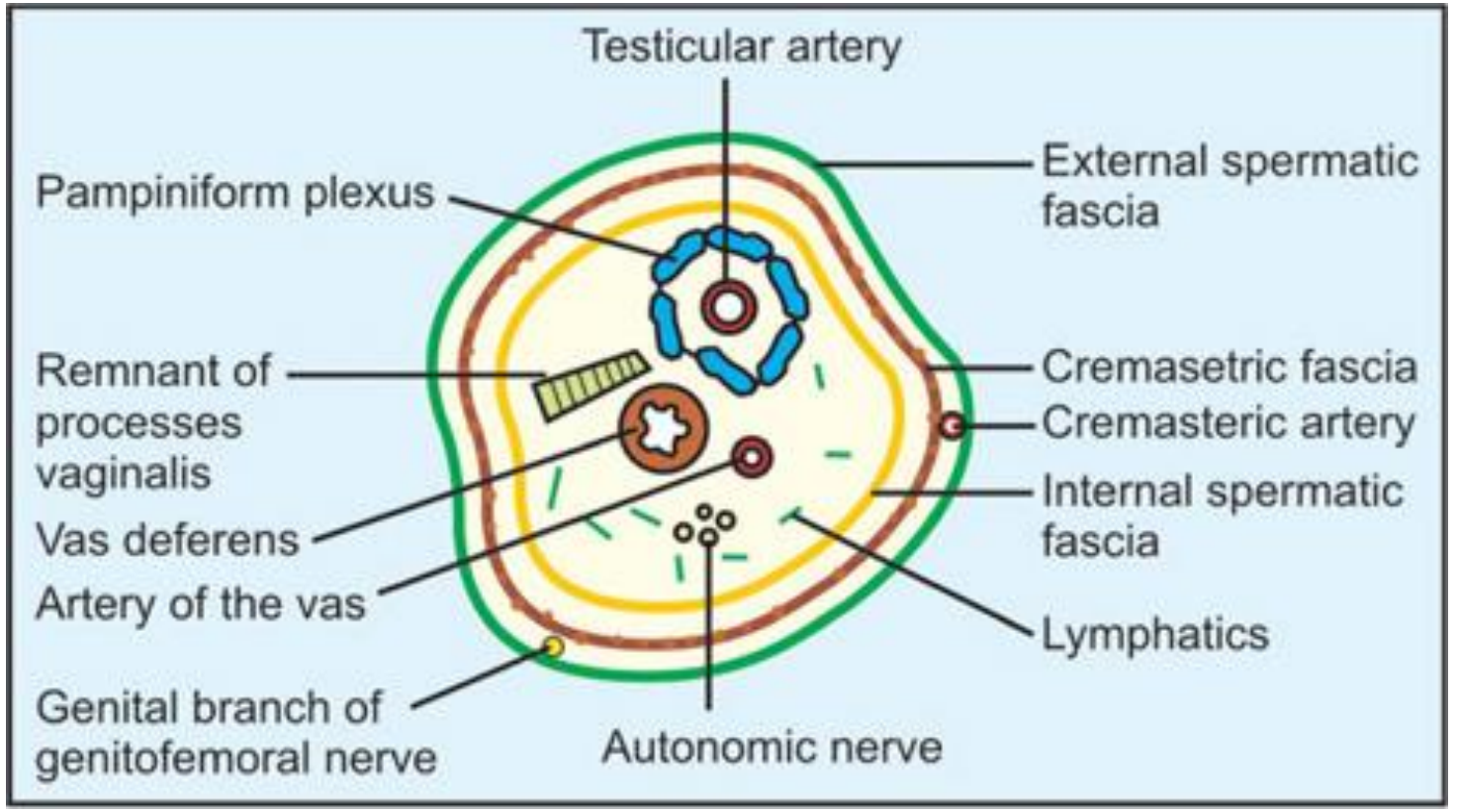


Testis Coverings

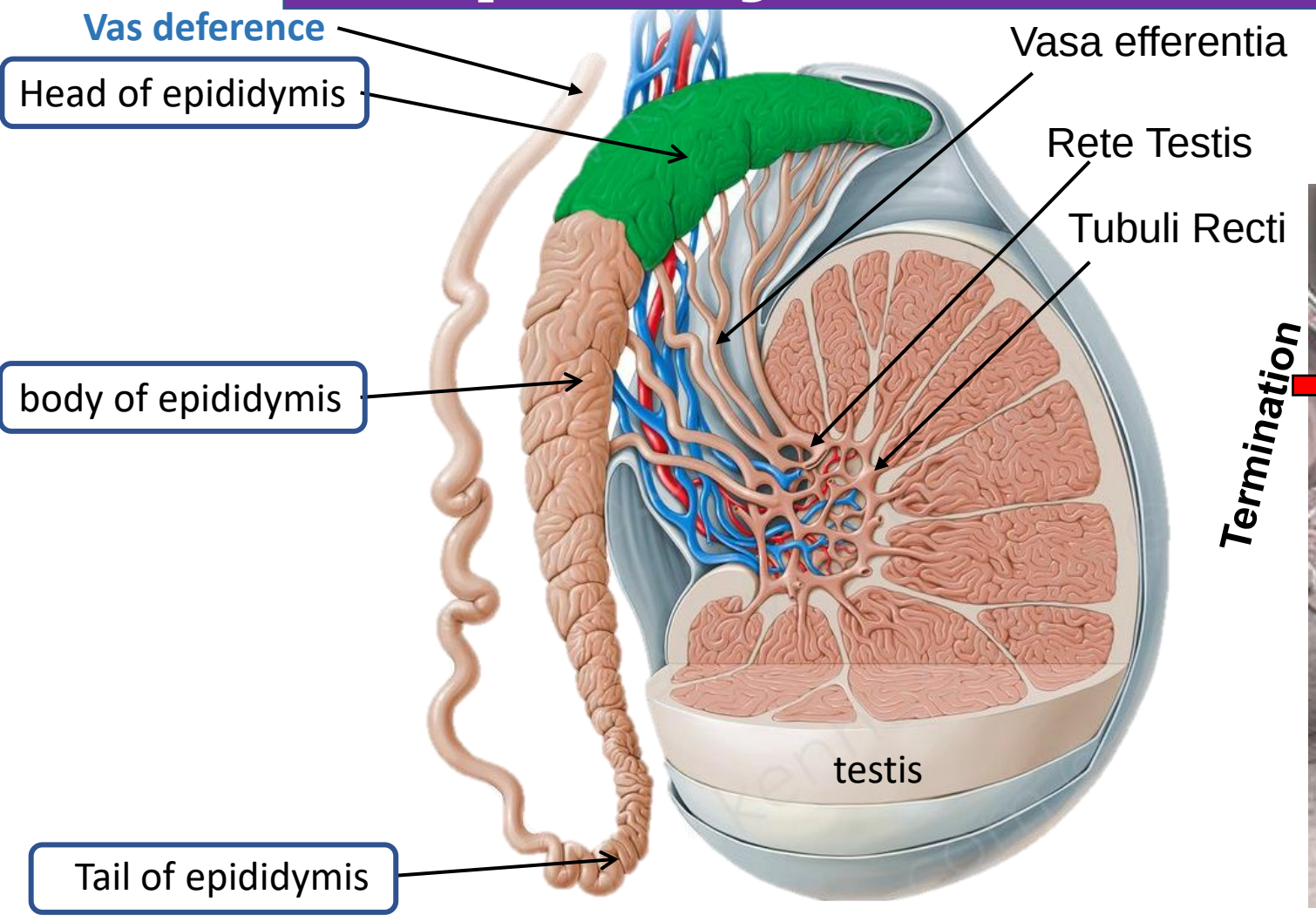


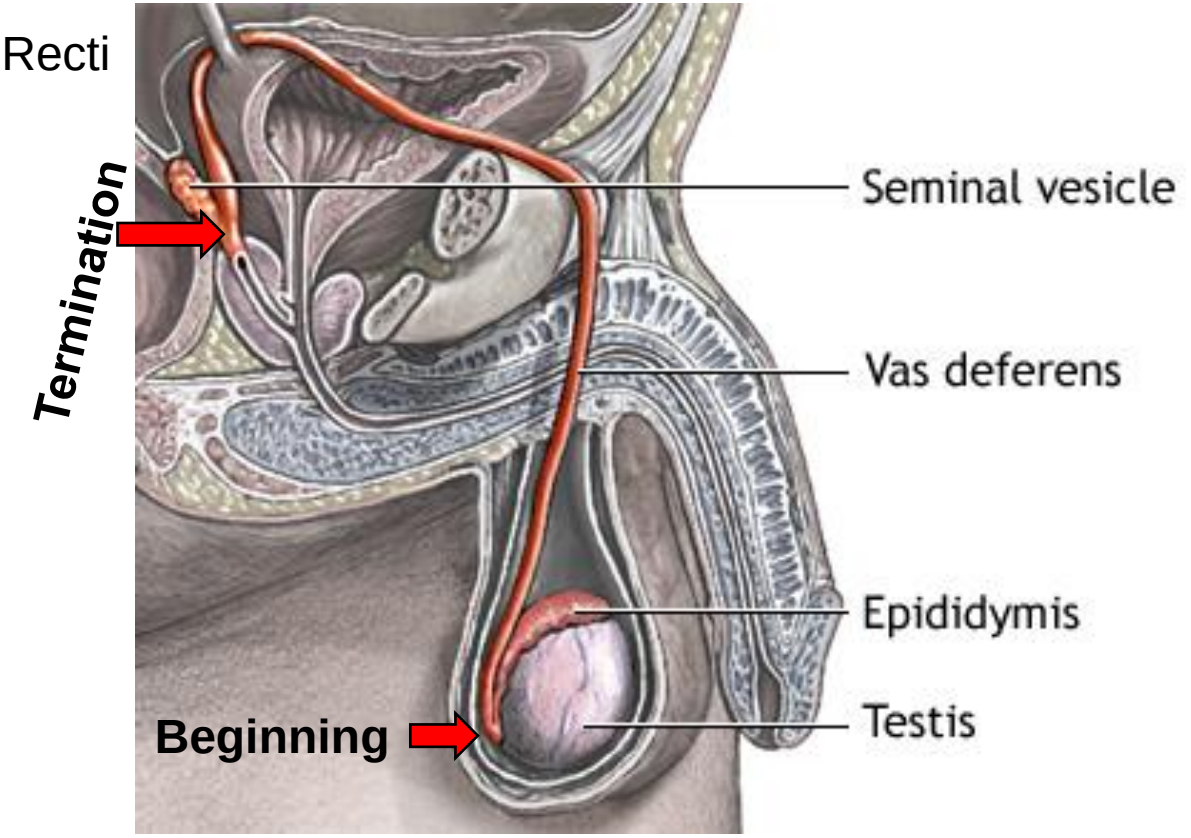
Spermatic Cord



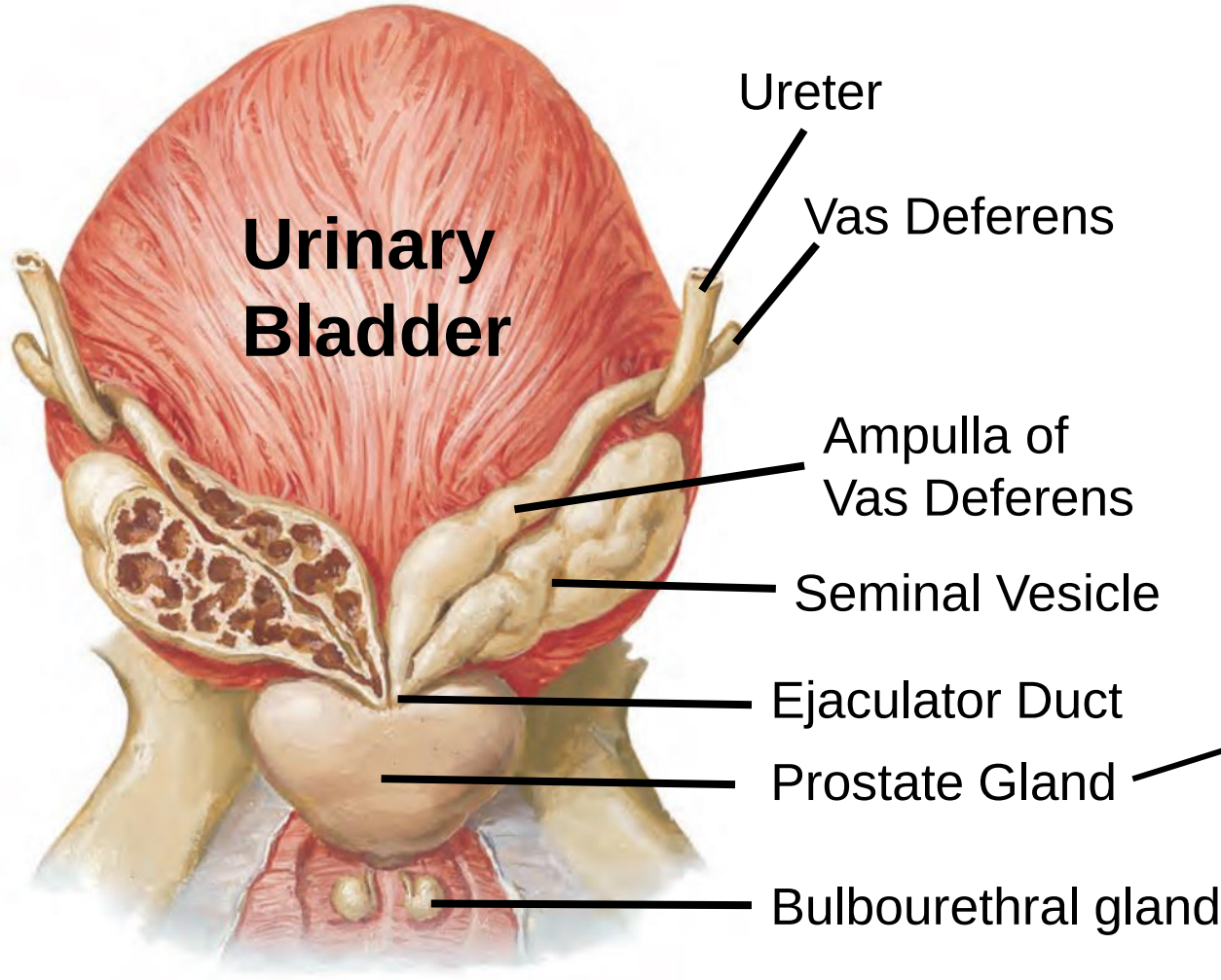


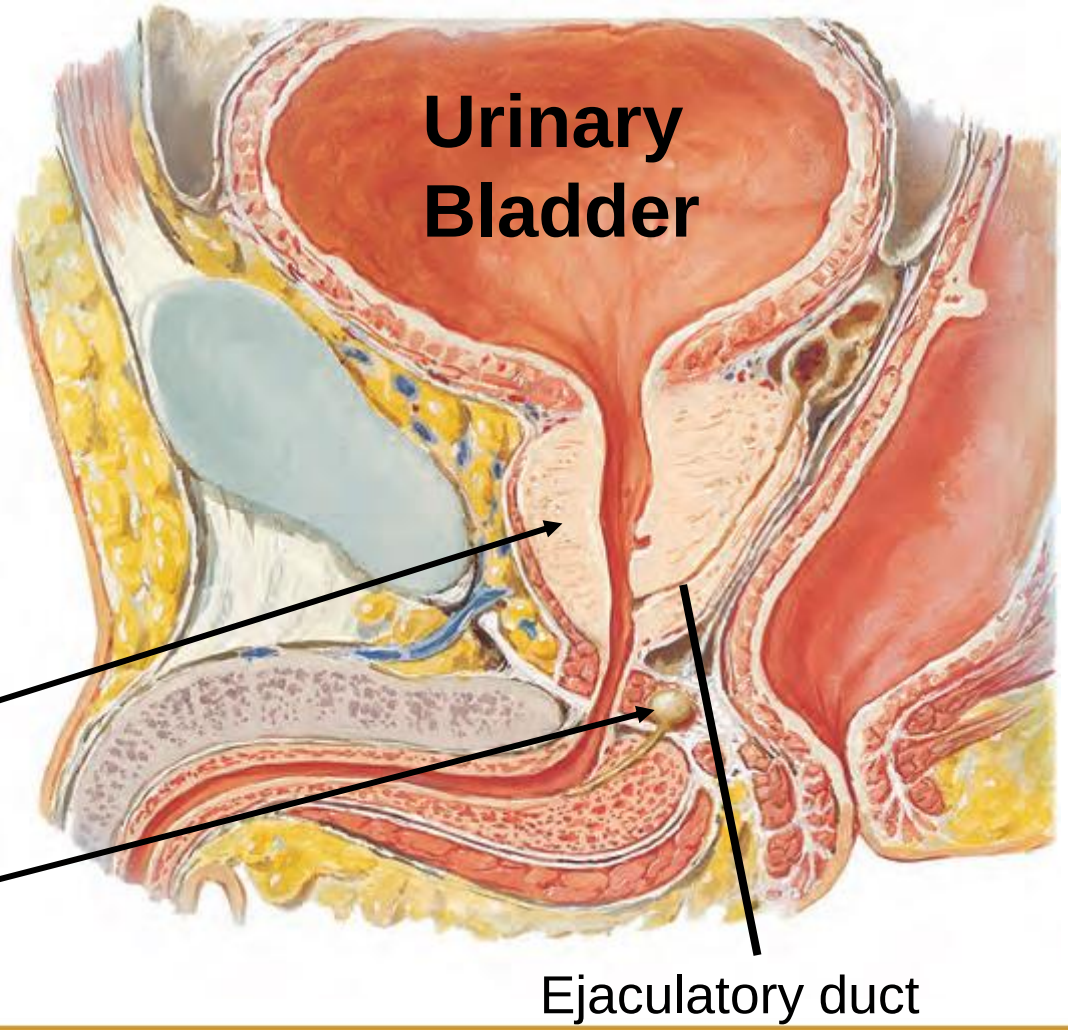
Epididymis & Vas Deferens



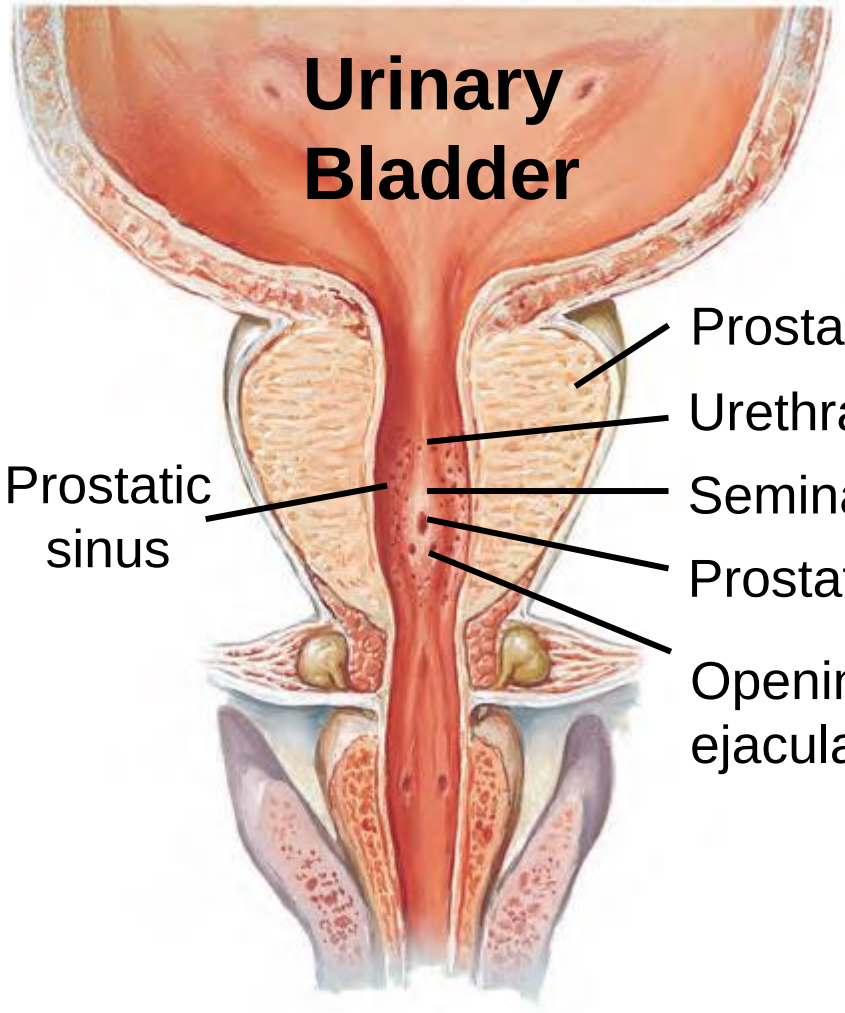


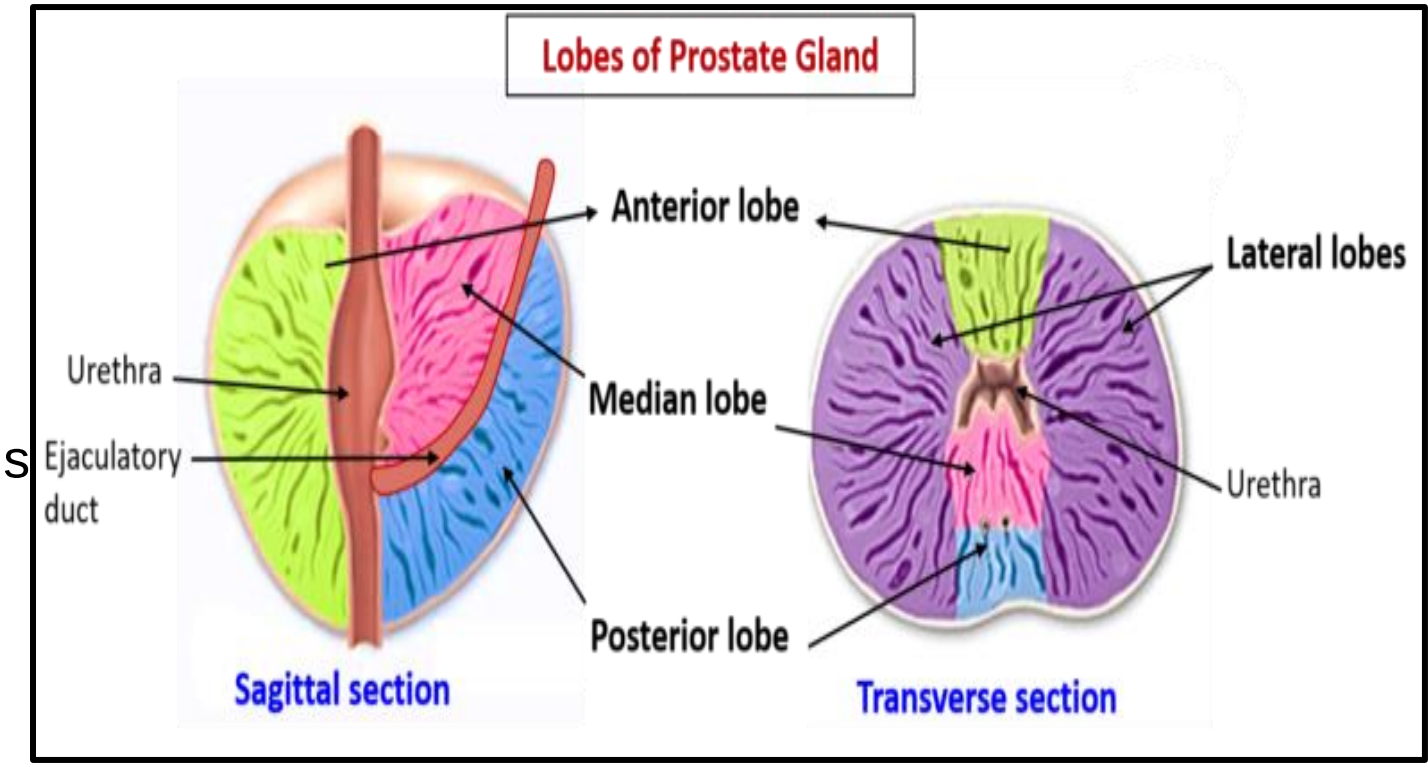
Seminal Vesicle & Prostate



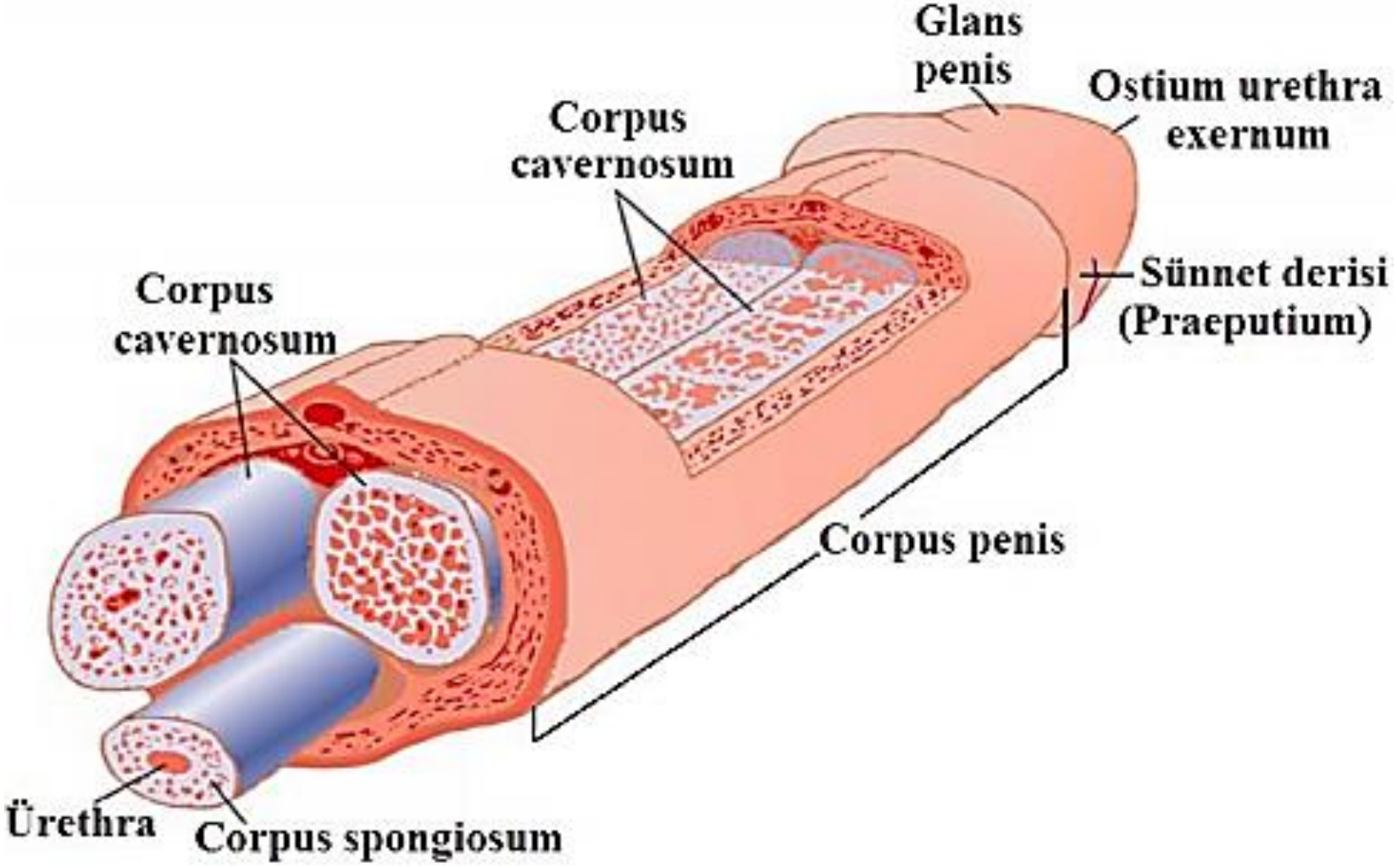


Prostate

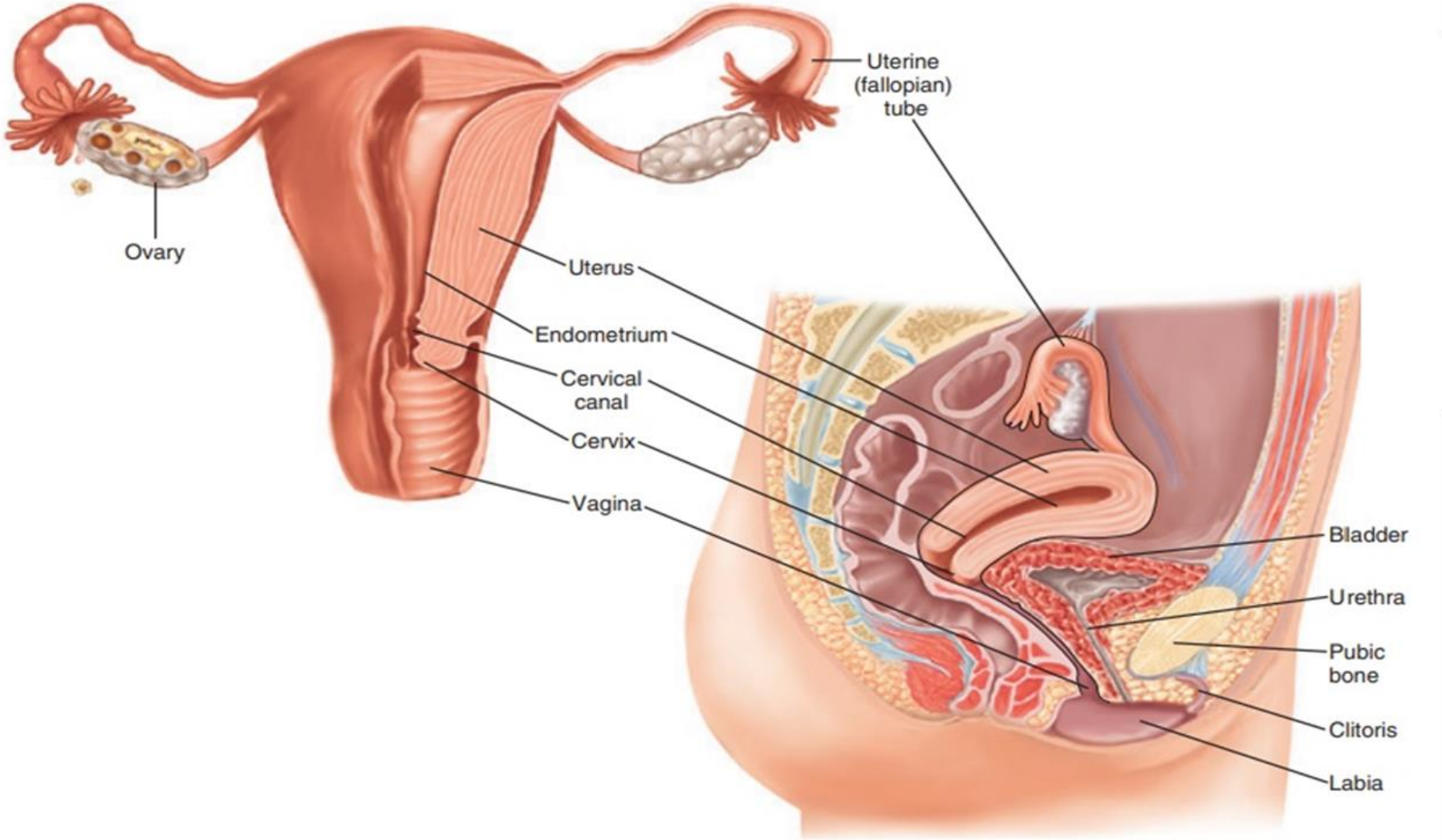

Urinary Bladder
Prostate
Urethral Crest
Prostatic sinus
Seminal Colliculus
Prostatic Utricle
Opening for ejaculatory ducts


Lobes of Prostate Gland
Anterior lobe
Lateral lobes
Urethra
Median lobe
Ejaculatory duct
Urethra
Posterior lobe
Sagittal section
Transverse section

Penis

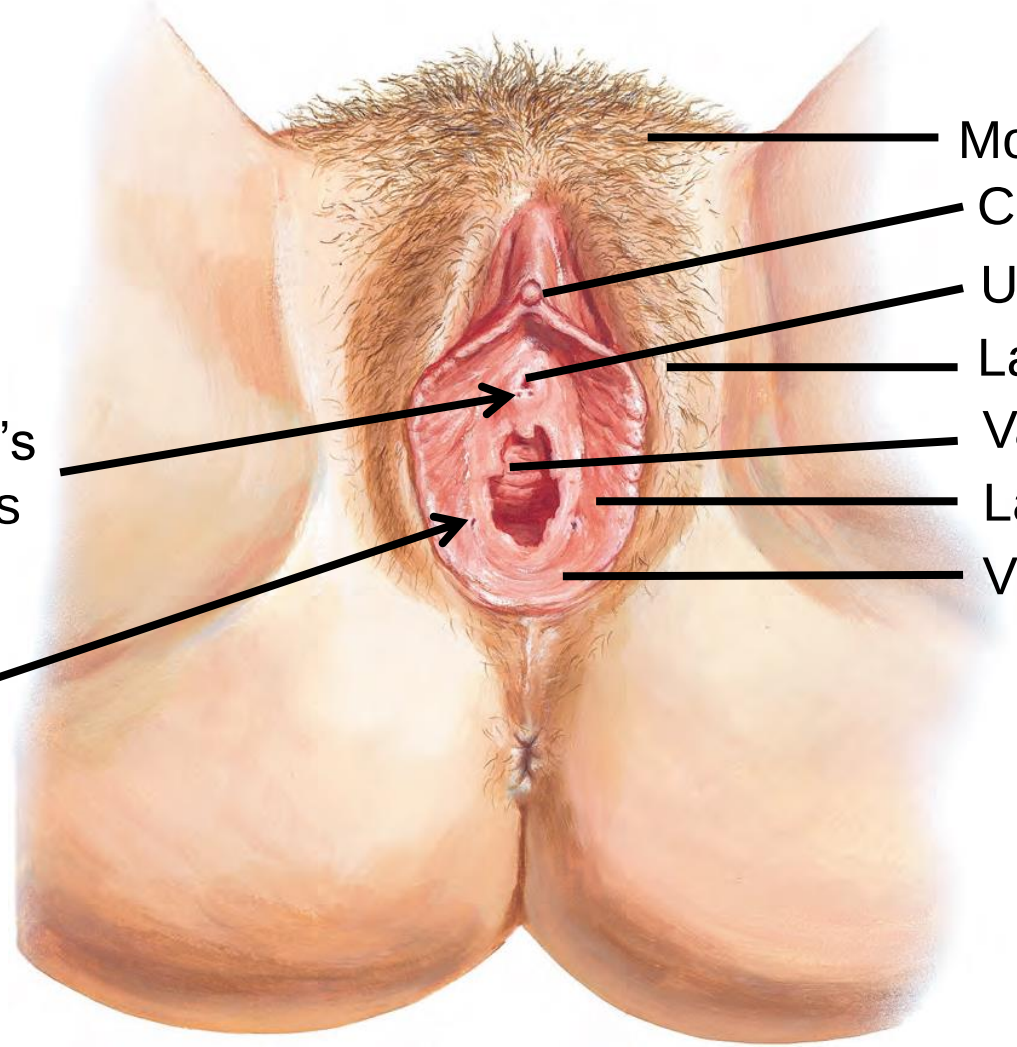

Glans penis
Ostium urethra exernum
Corpus cavernosum
Sünnet derisi (Praeputium)
Corpus cavernosum
Corpus penis
Ürethra
Corpus spongiosum

Female Genital System

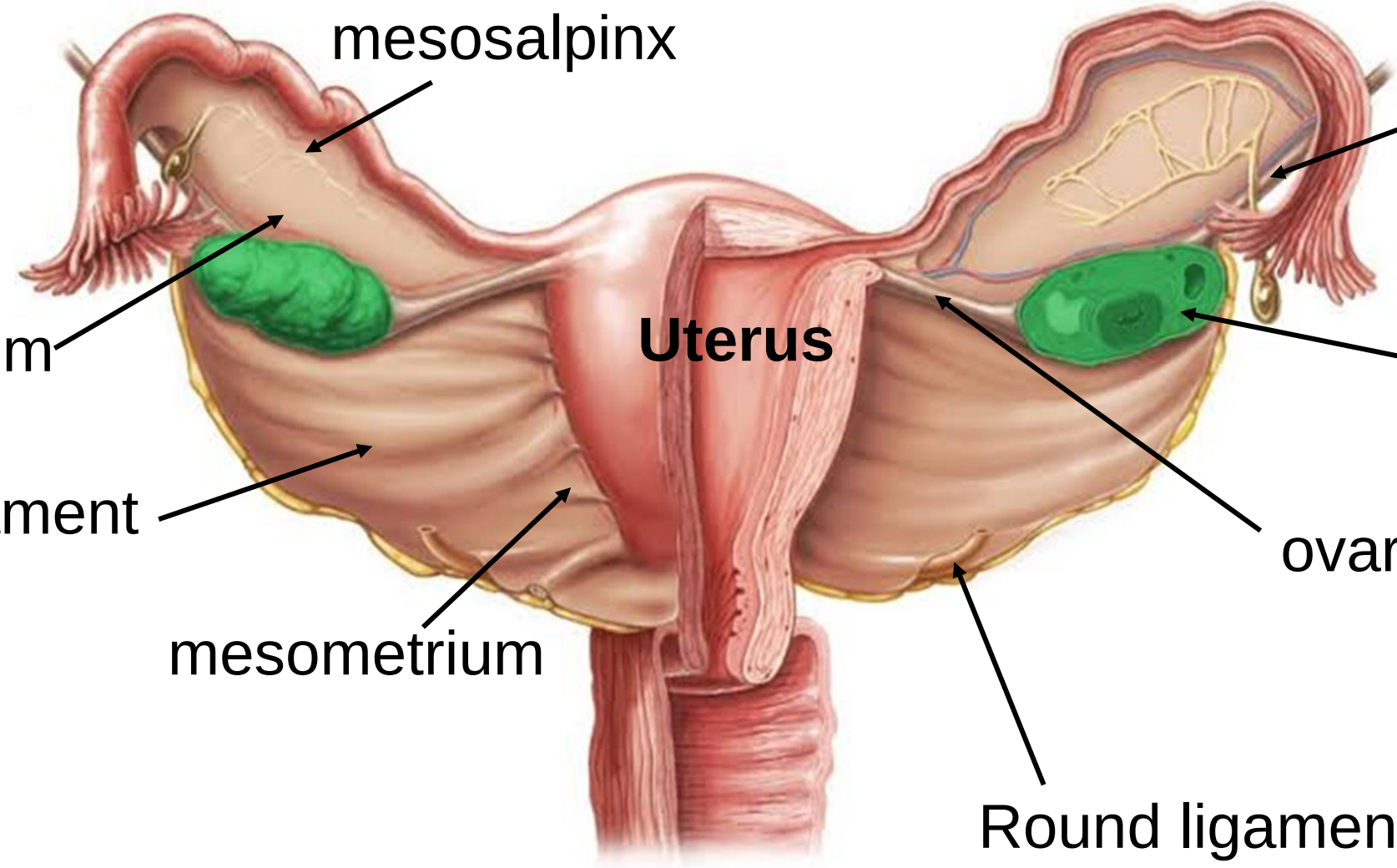


الطريق الدولي الساحلي - منطقة 15 مايو - مدينة جمصة - محافظة الدقهلية
International Coastal Road - 15th of May District - Gamasa City - Dakahlia Governorate
medic@mansnu.edu.eg

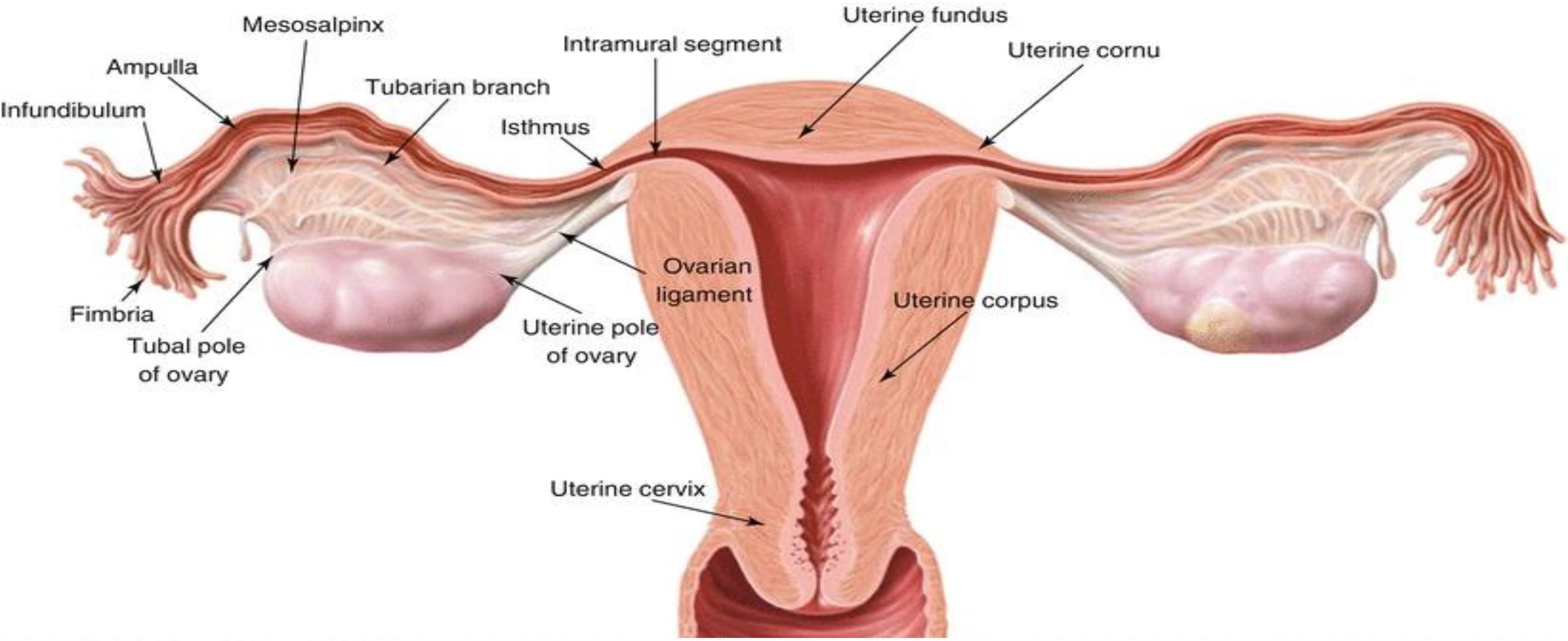
External Genitalia (Vulva)



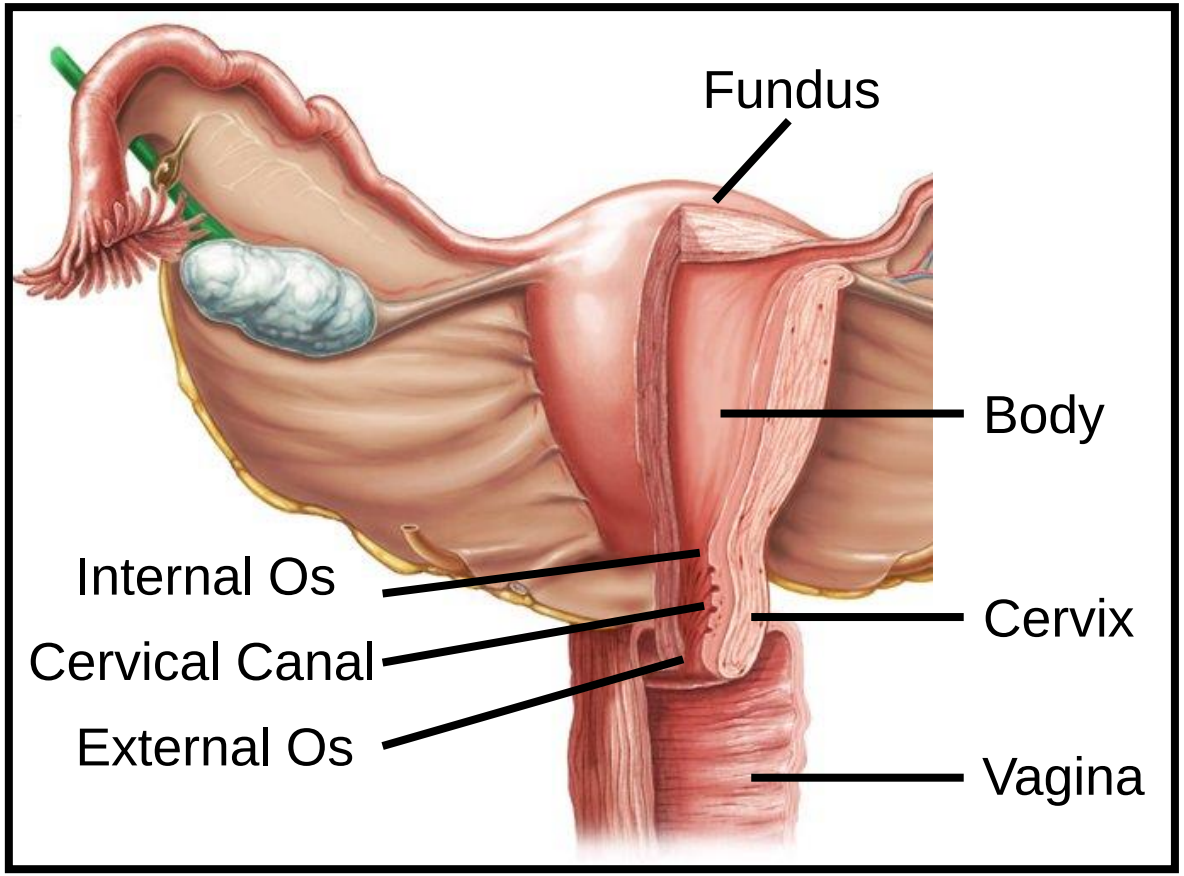
Ovaries


mesosalpinx
Suspensory ligament
mesovarium
Uterus
ovary
broad ligament
ovarian ligament
mesometrium
Round ligament of uterus

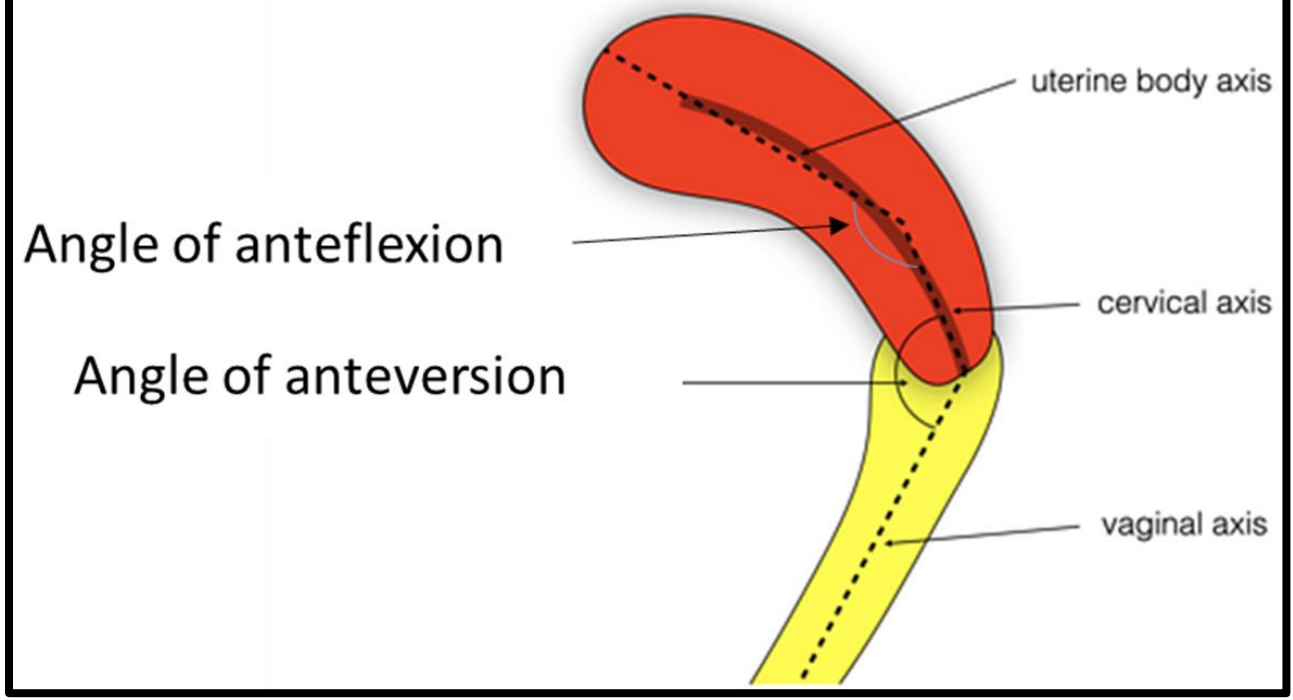
Fallopian Tubes



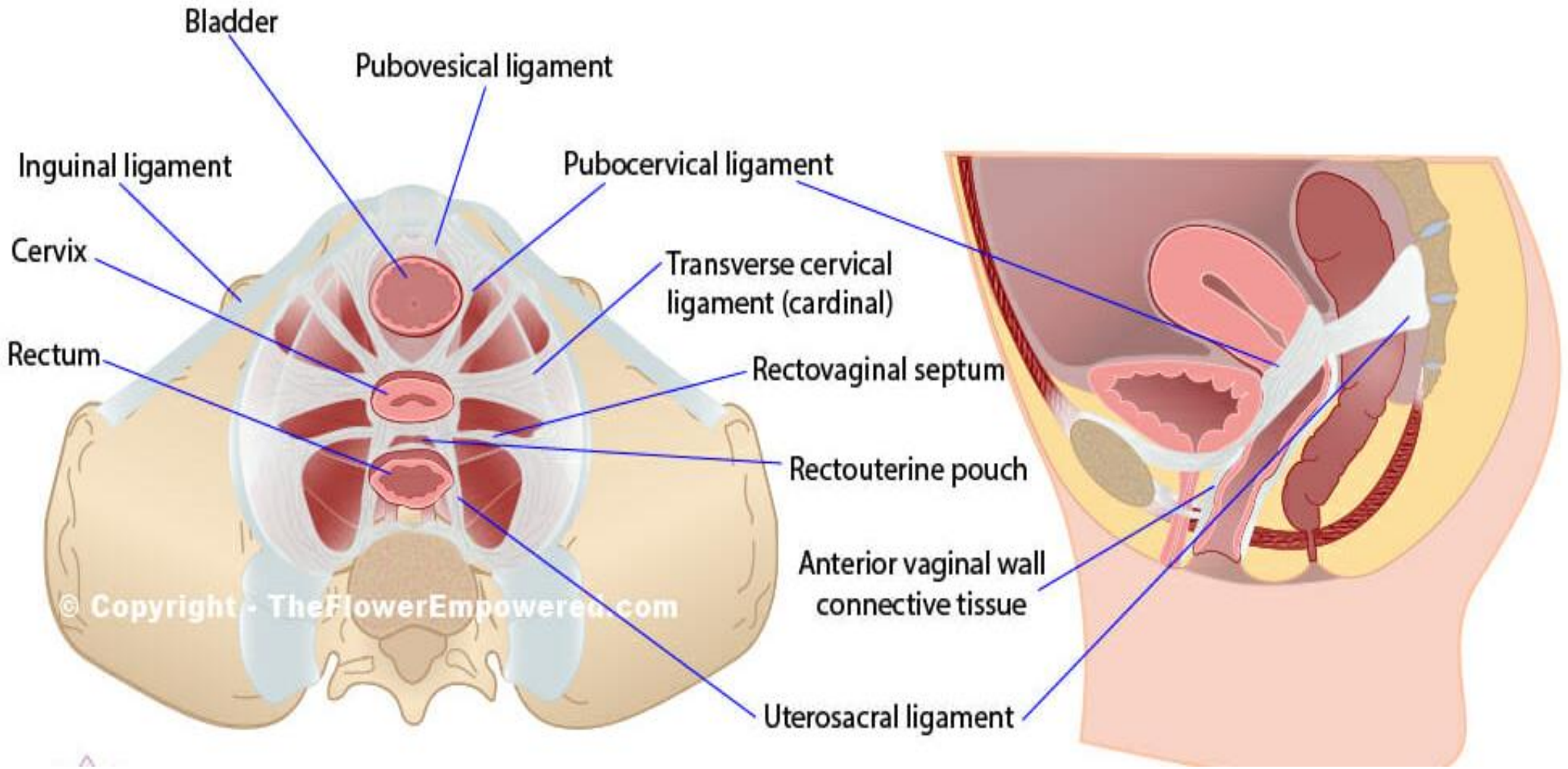
Uterus



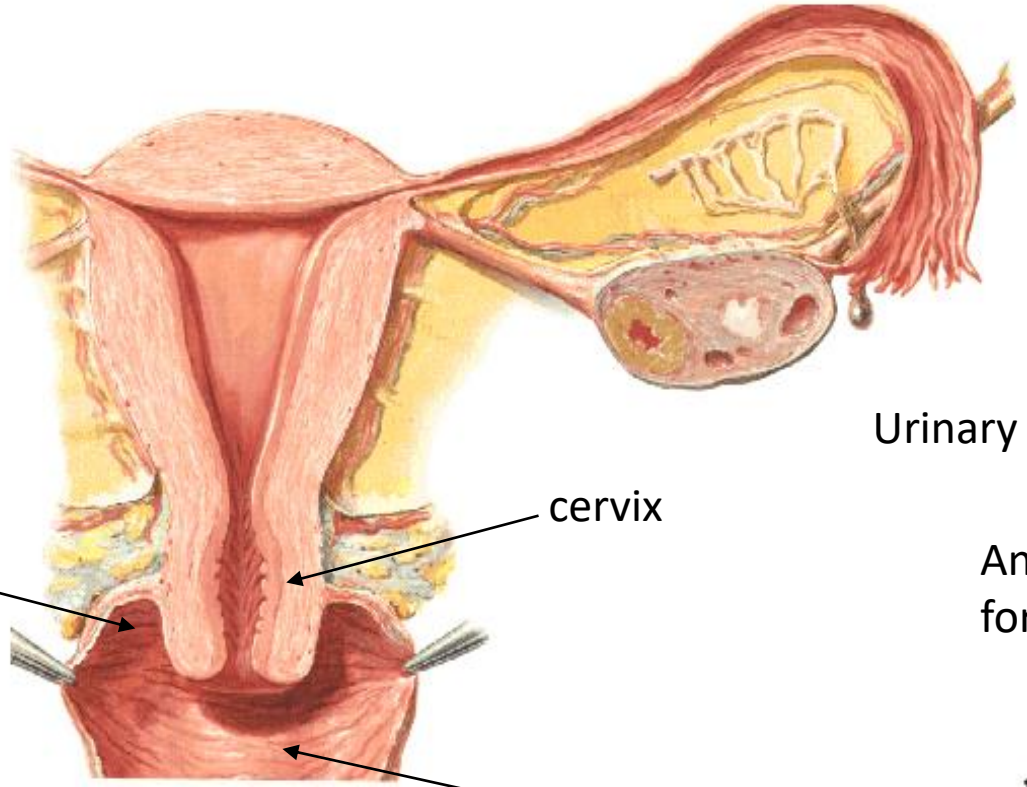
Normal Position of the Uterus

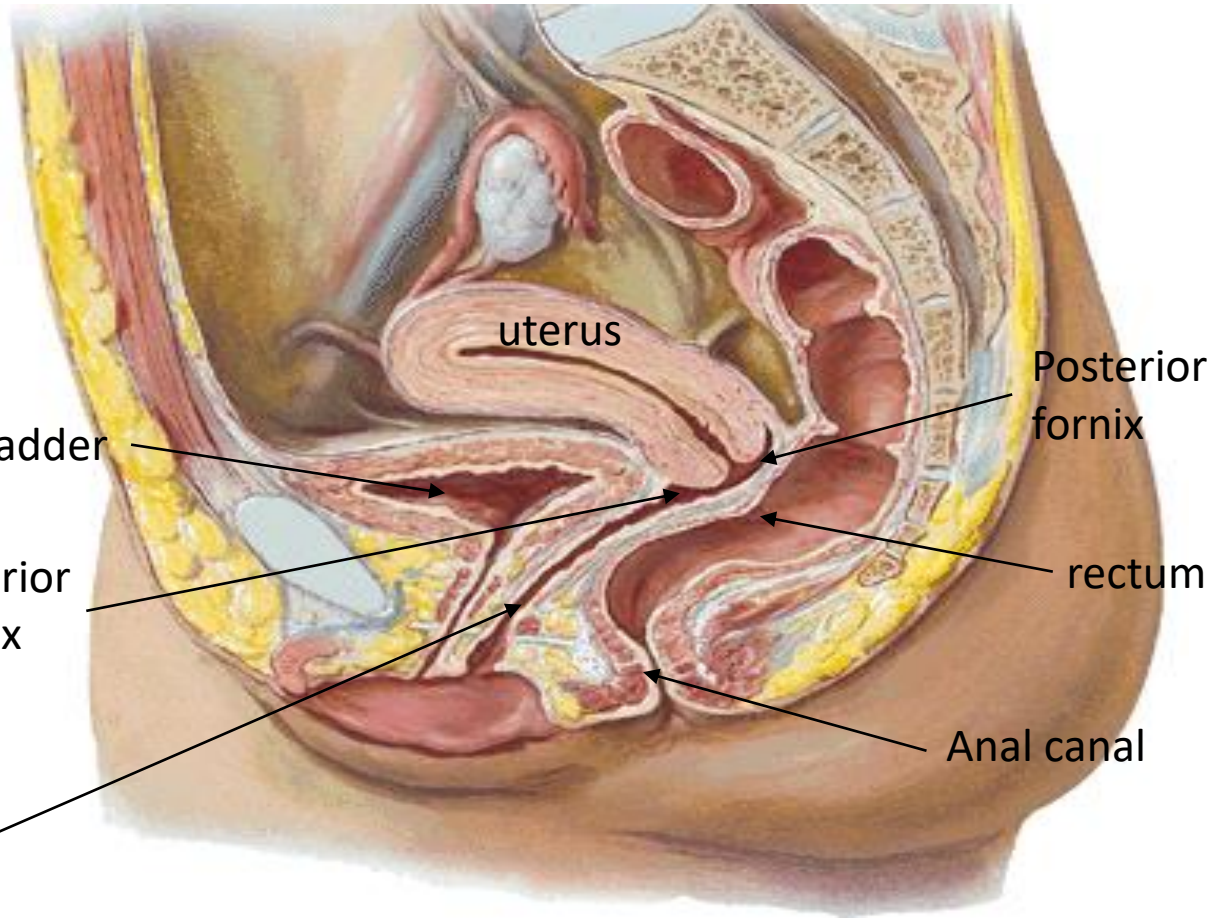


Uterus: Supporting Ligaments



Vagina


Lateral fornix
cervix
vagina


uterus
Urinary bladder
Posterior fornix
Anterior fornix
rectum
Anal canal


Thank
you!