

Biology Charts

For use with any course book

The Axis (C2)

Odontoid Process

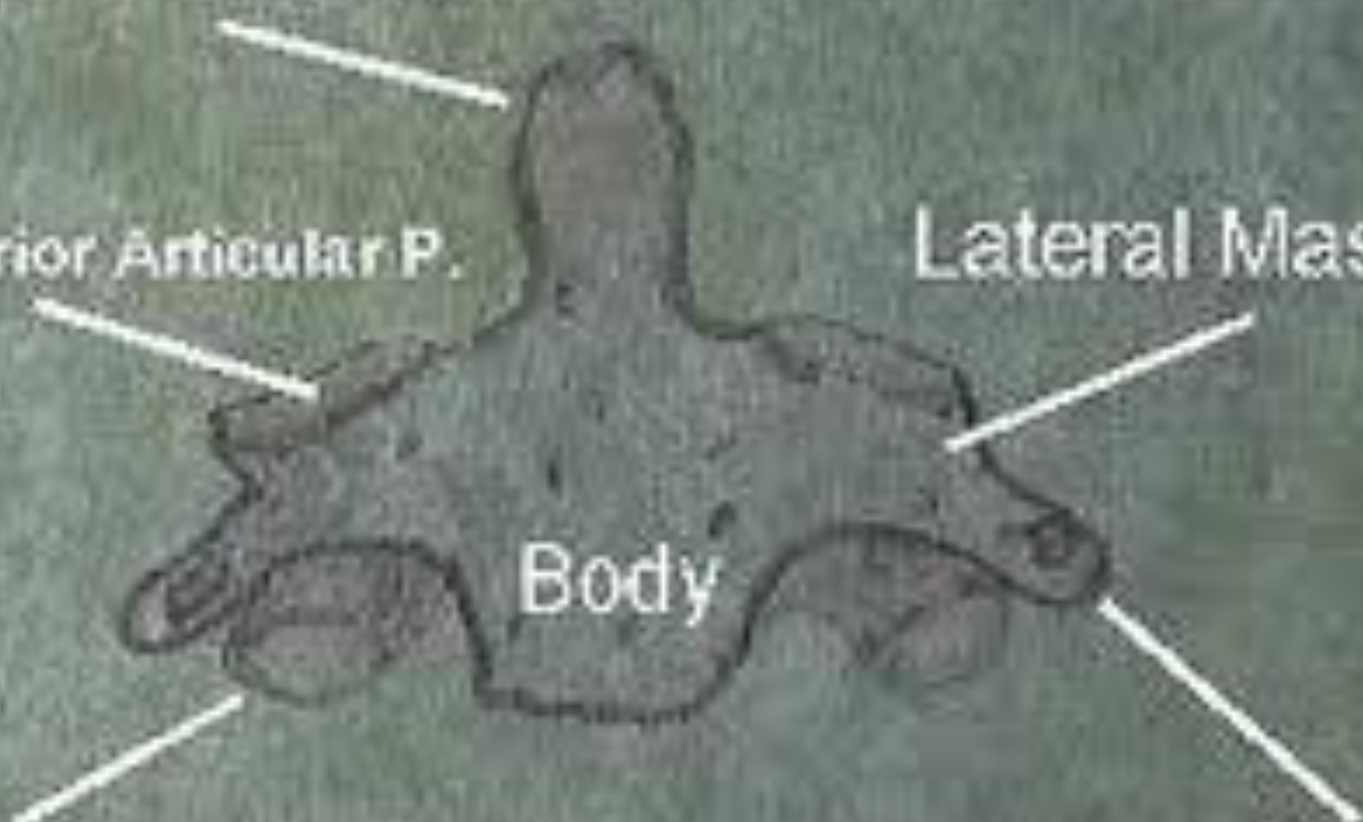
Superior Articular P.

Lateral Mass

Body

Inferior Articular P.

Transverse Process



Atlas (C1)/Axis (C2)

shows articulation - viewed from
superior/lateral/posterior angle

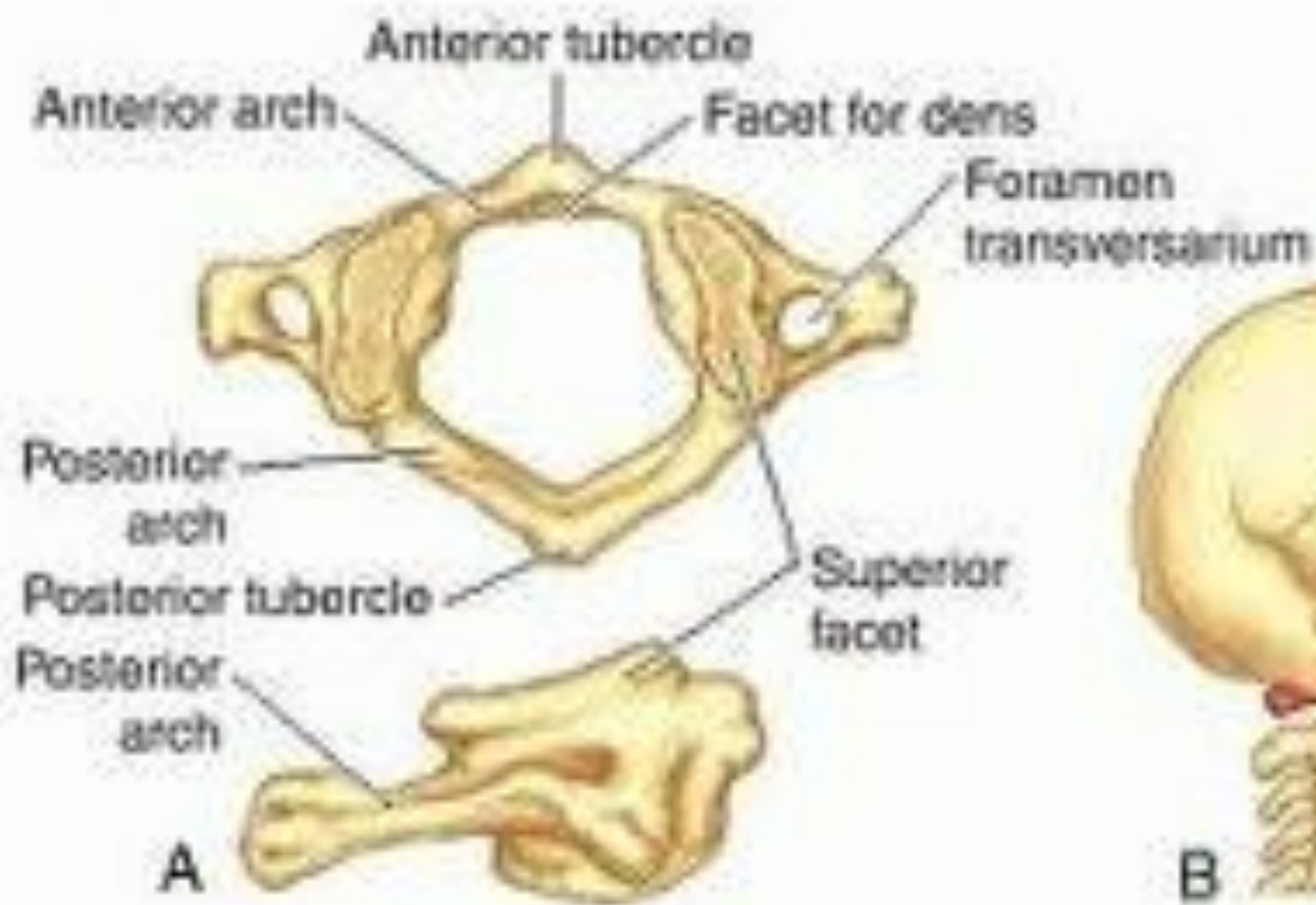


© WJ Medscape

Articular facet



Transverse
foramen



DIFFERENT LAND ANIMALS (1 of 3)



hare



zebra



tiger



rhinoceros



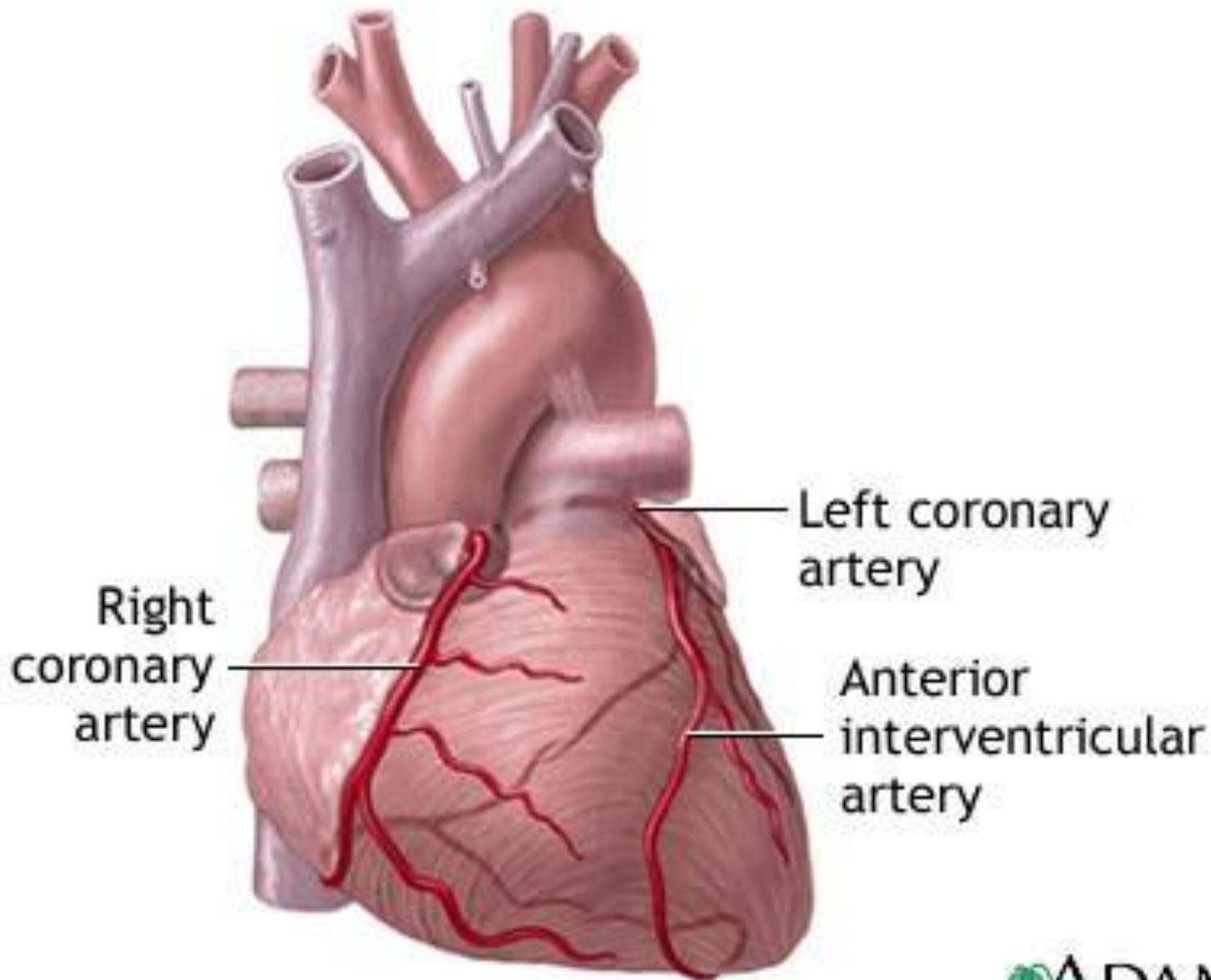
raccoon



bear

LES ANIMAUX DE LA FERME / FARM ANIMALS





Atlas

Gelenkfläche für das
Hinterhauptbein

Dens Axis

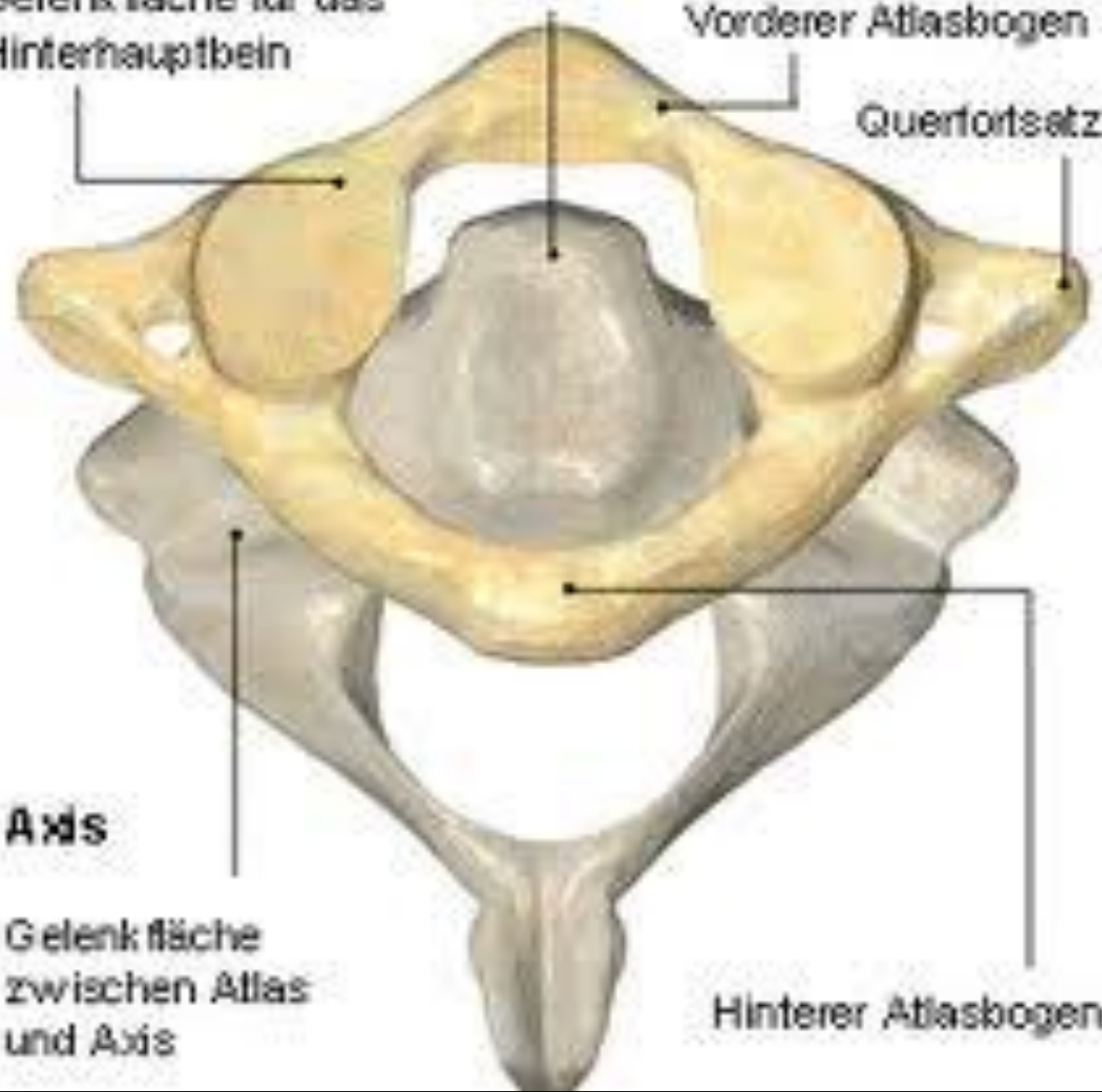
Vorderer Atlasbogen

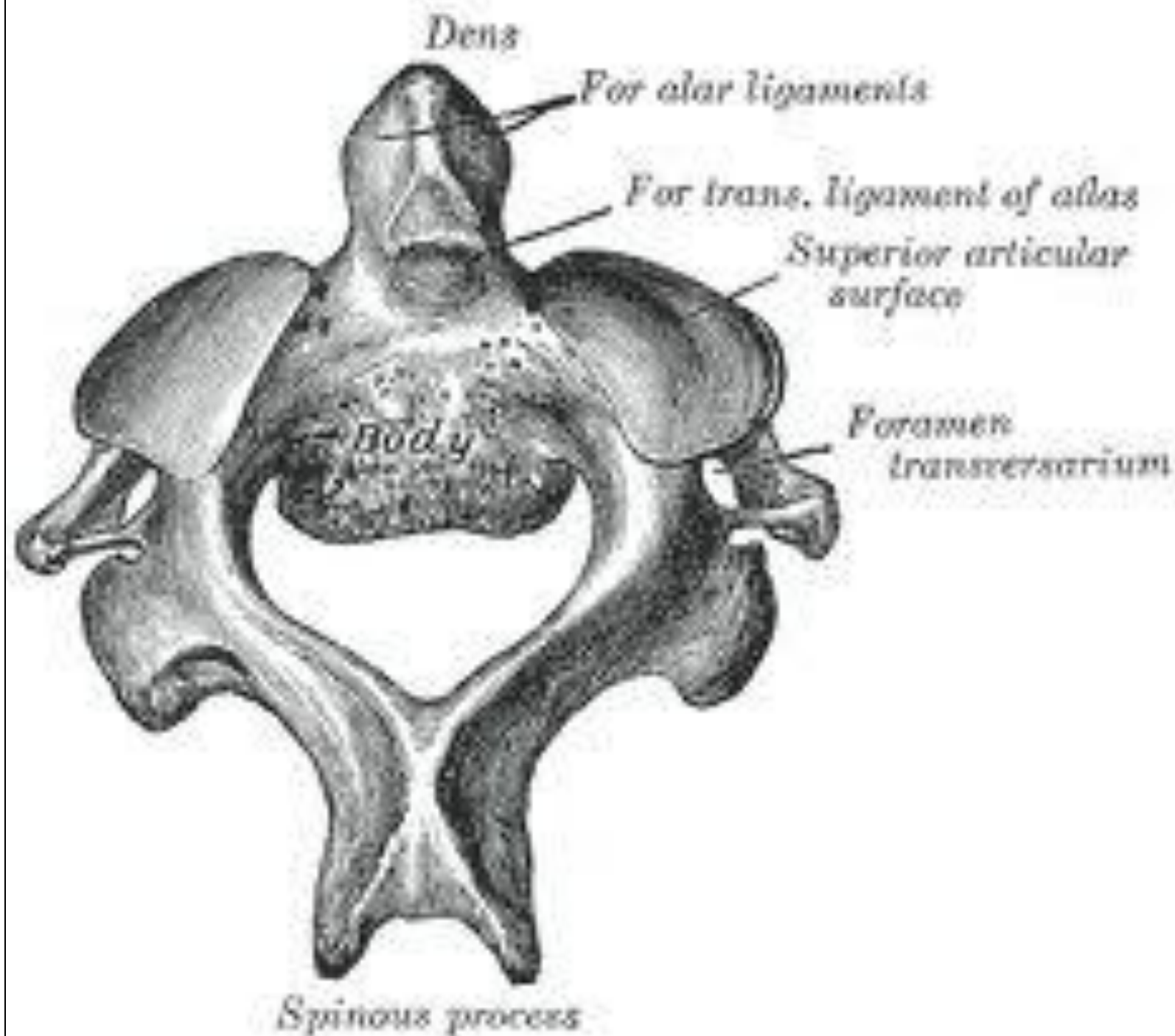
Querfortsatz

Axis

Gelenkfläche
zwischen Atlas
und Axis

Hinterer Atlasbogen





Nerve Cell (Neuron)

Dendrites

Nucleus

Cell Body

Schwann
Cells

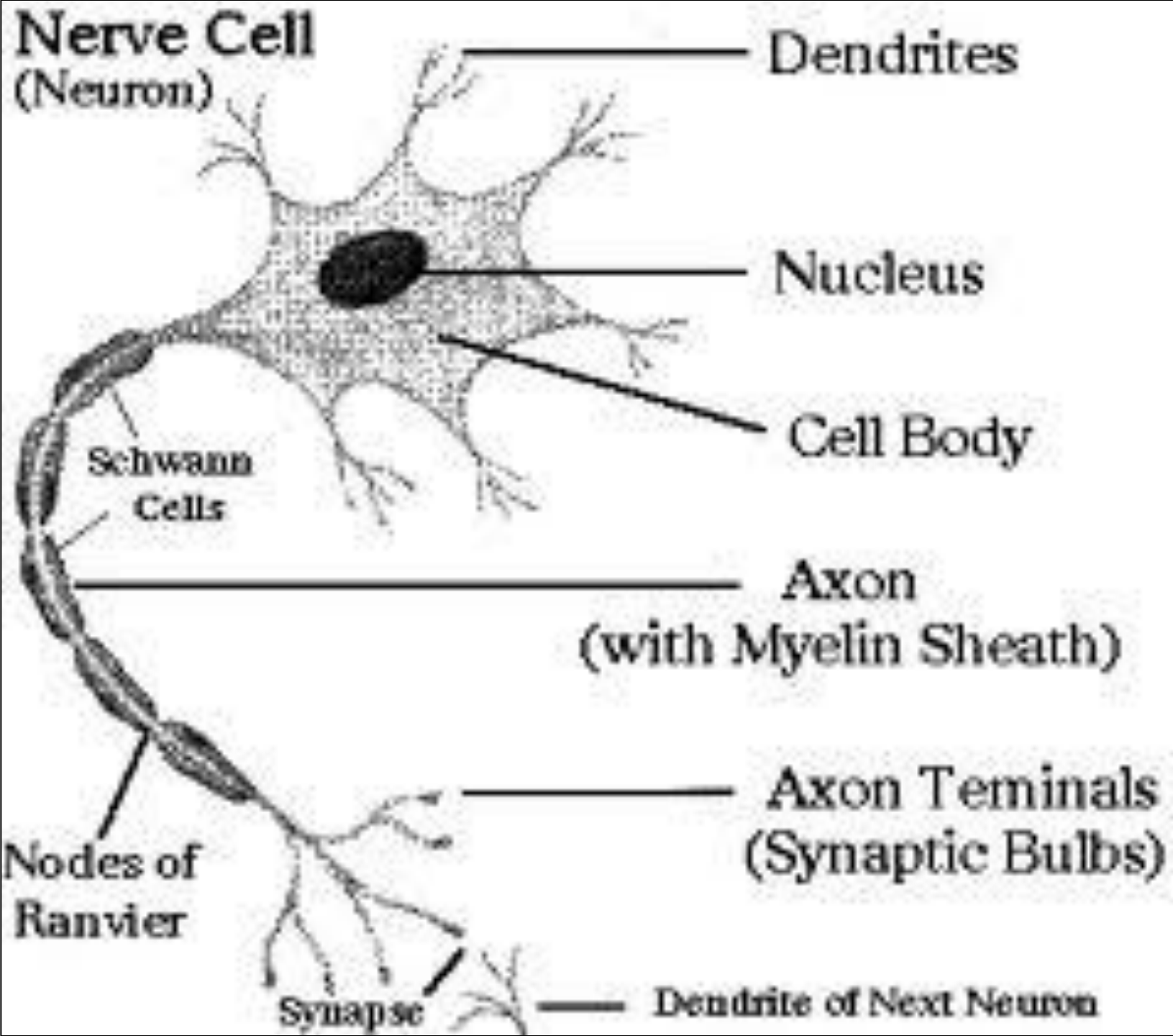
Axon
(with Myelin Sheath)

Axon Terminals
(Synaptic Bulbs)

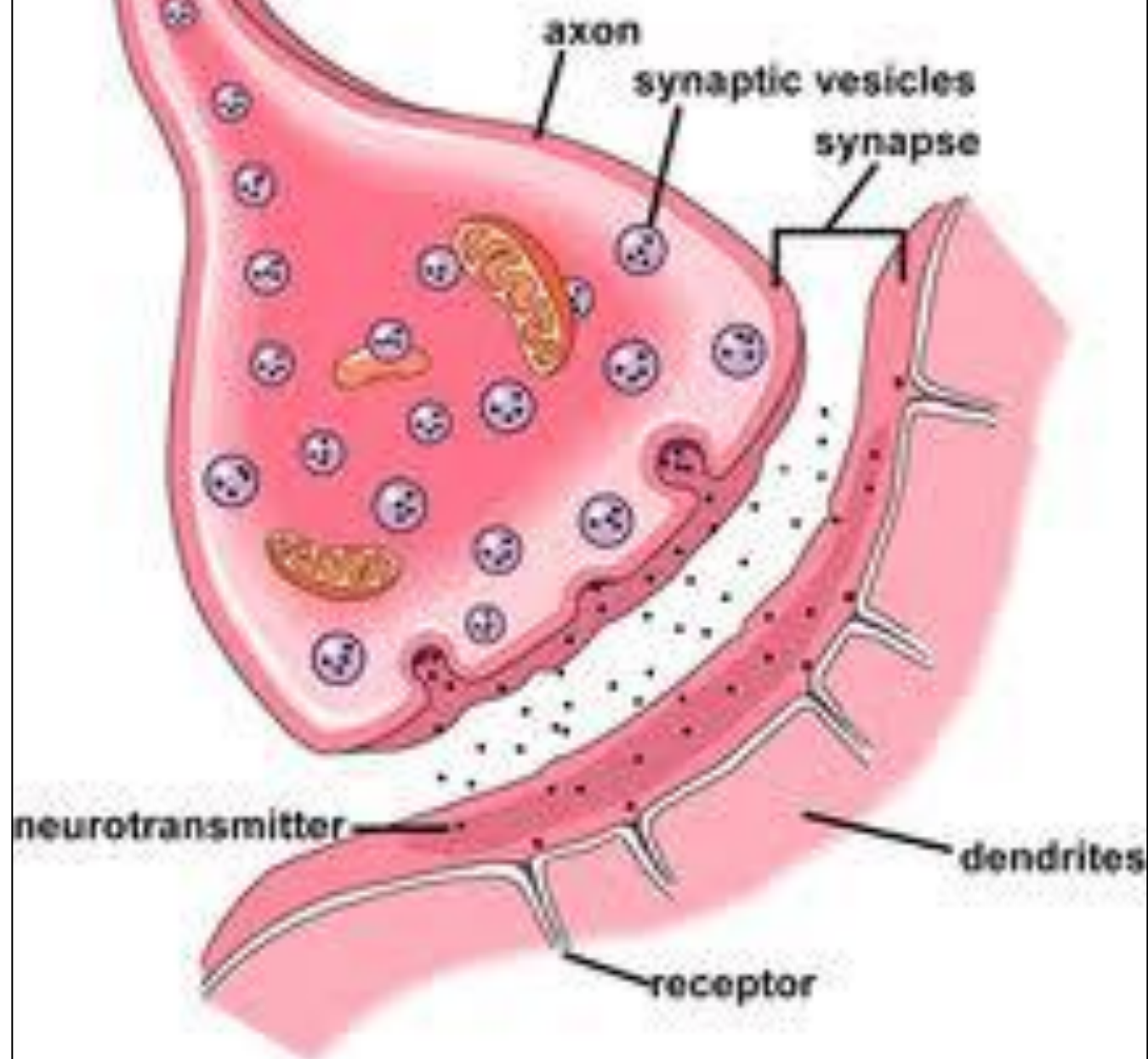
Nodes of
Ranvier

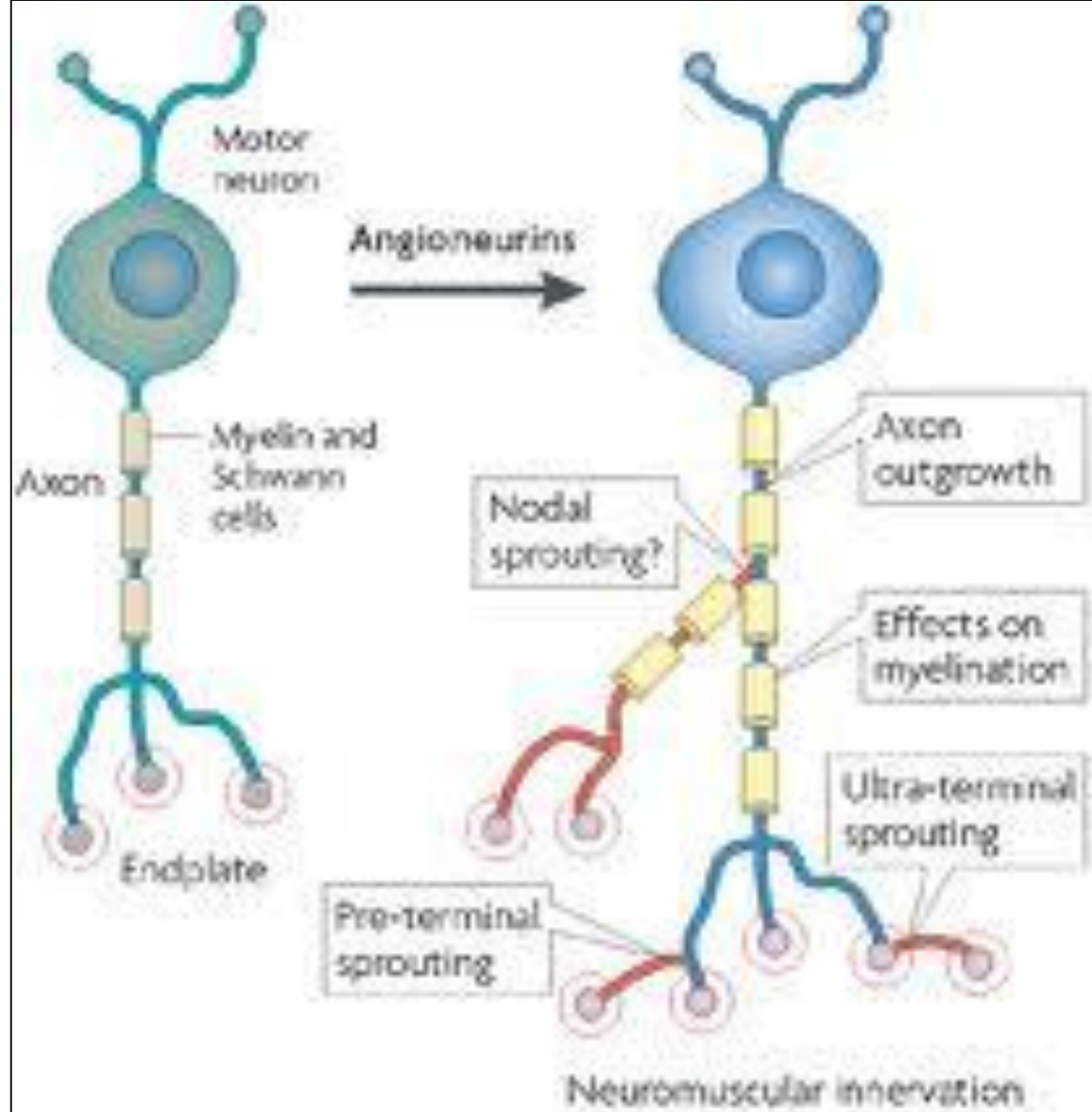
Synapse

Dendrite of Next Neuron

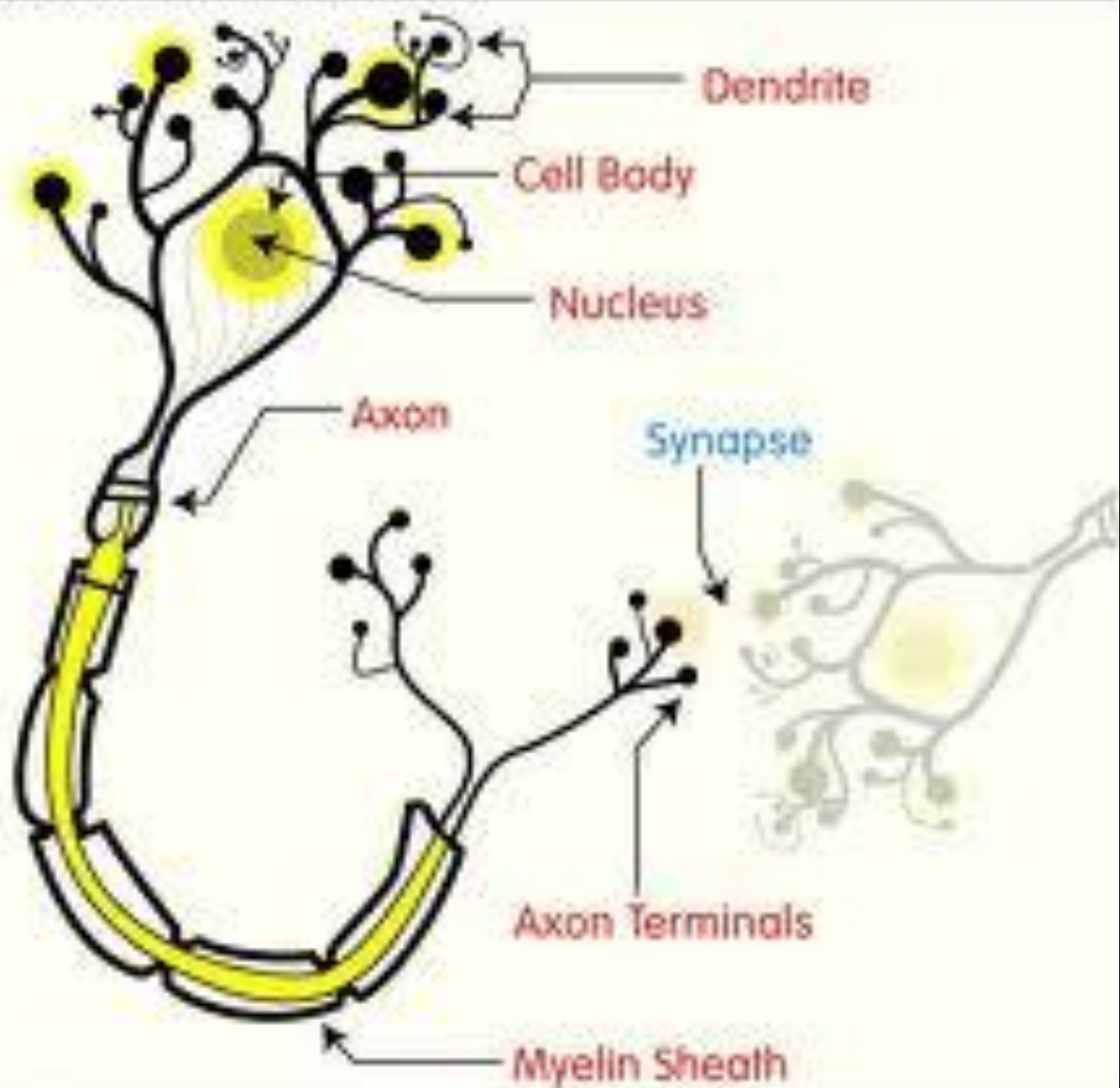


Synapse

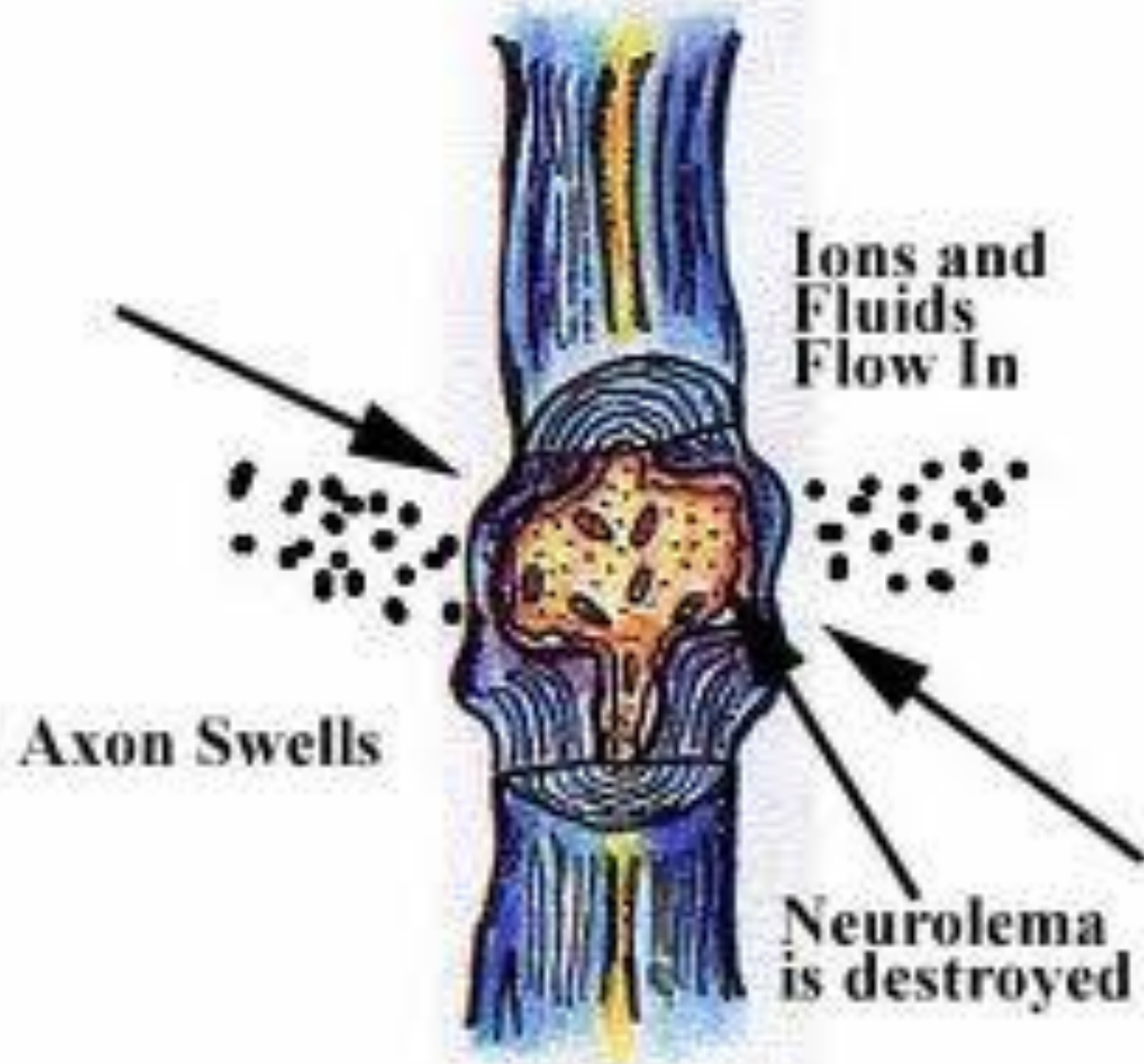




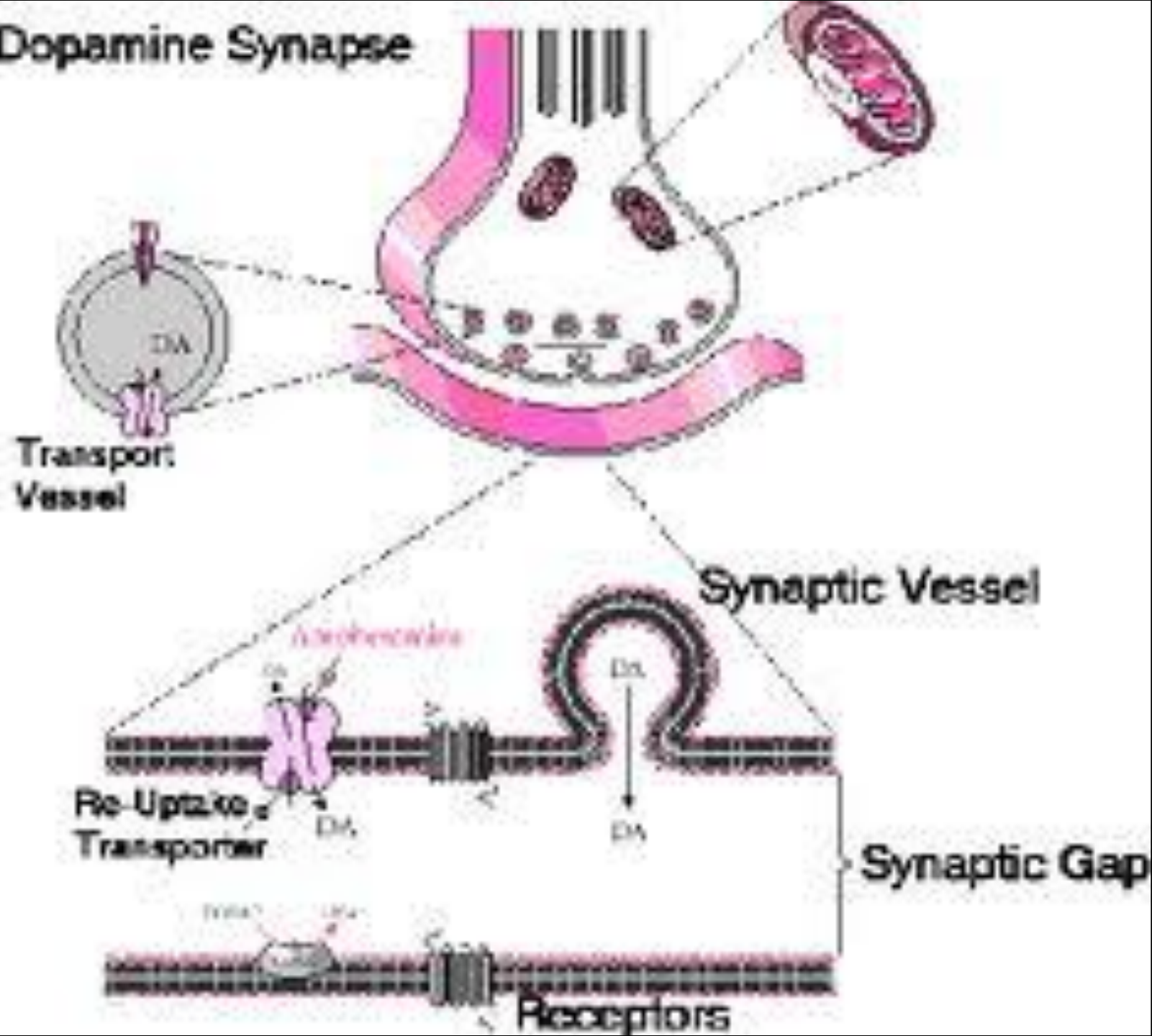
THE NEURON and synapse

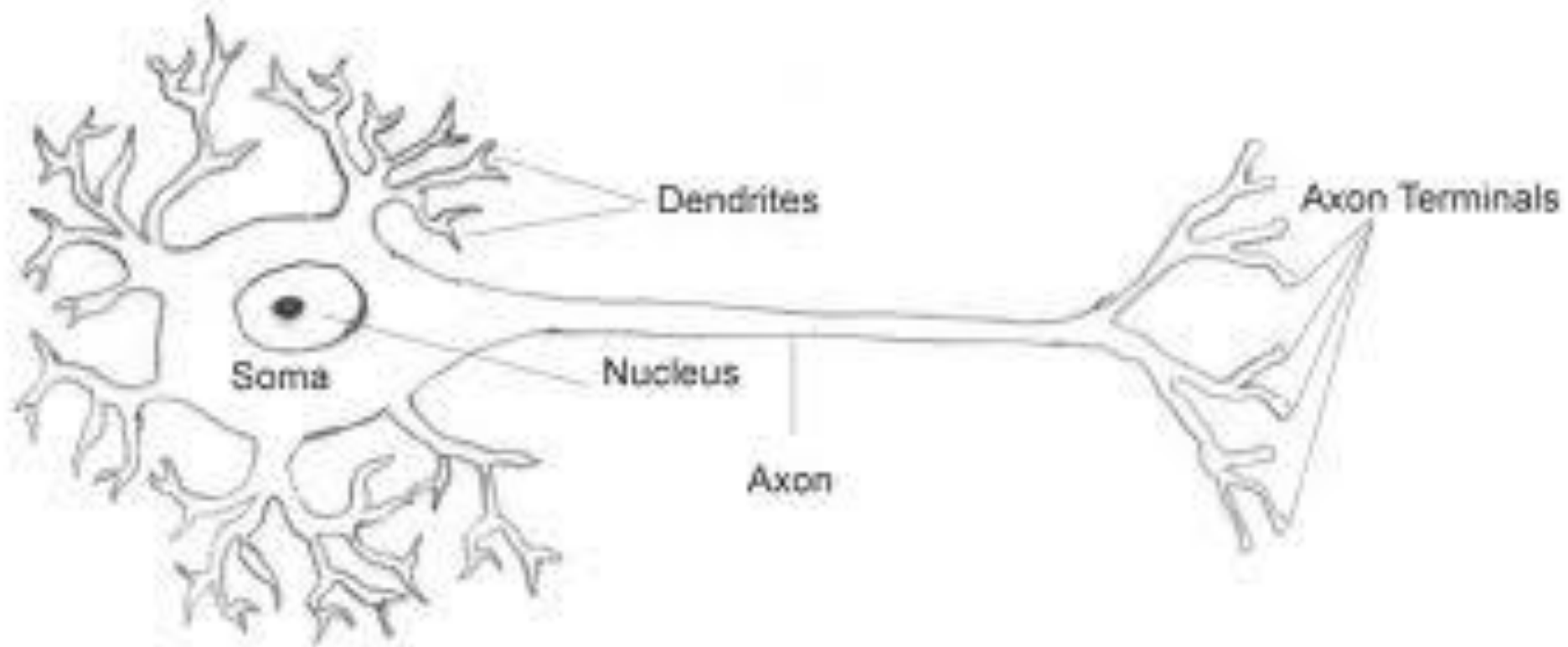


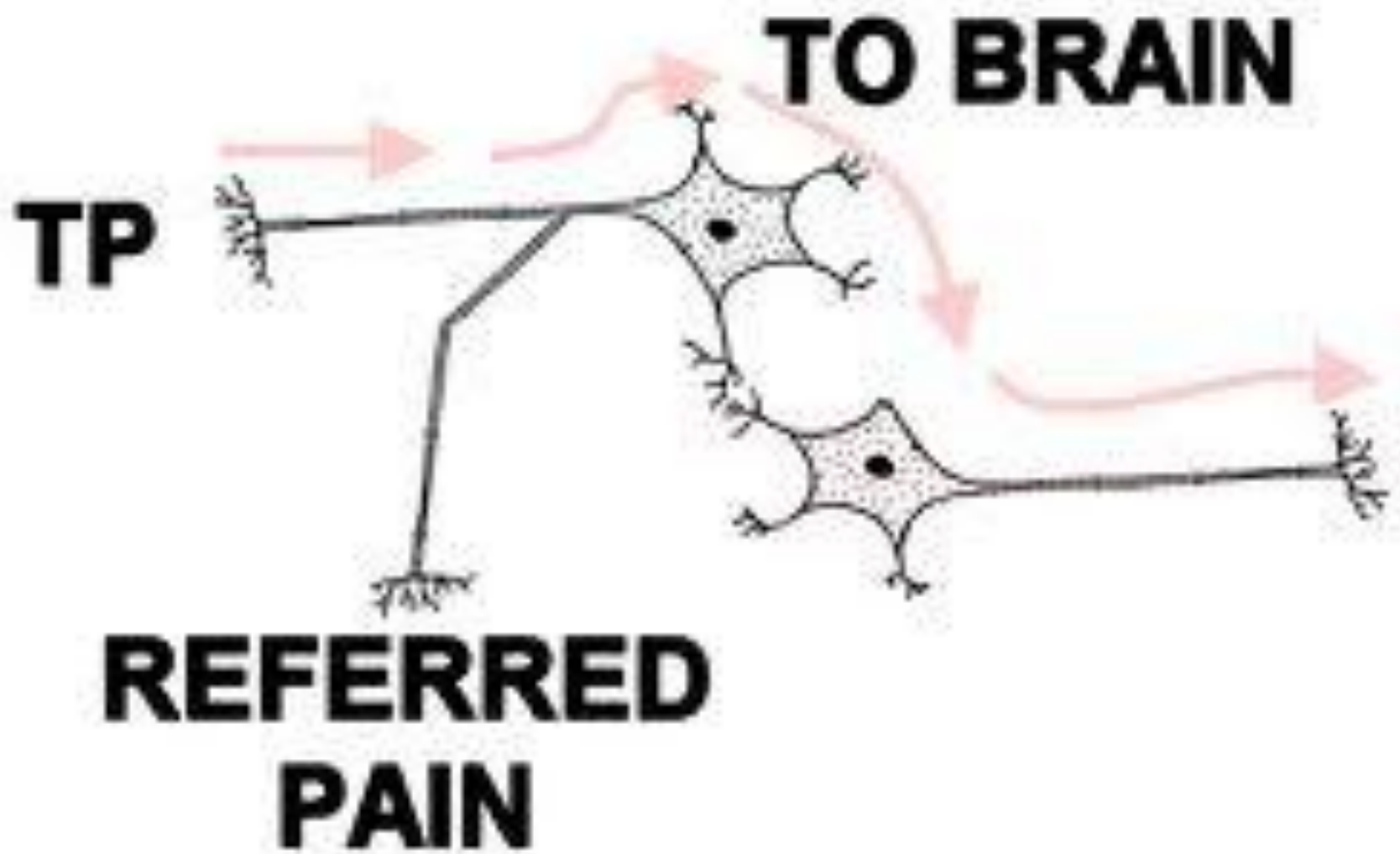
Reaction of Axon to Damage

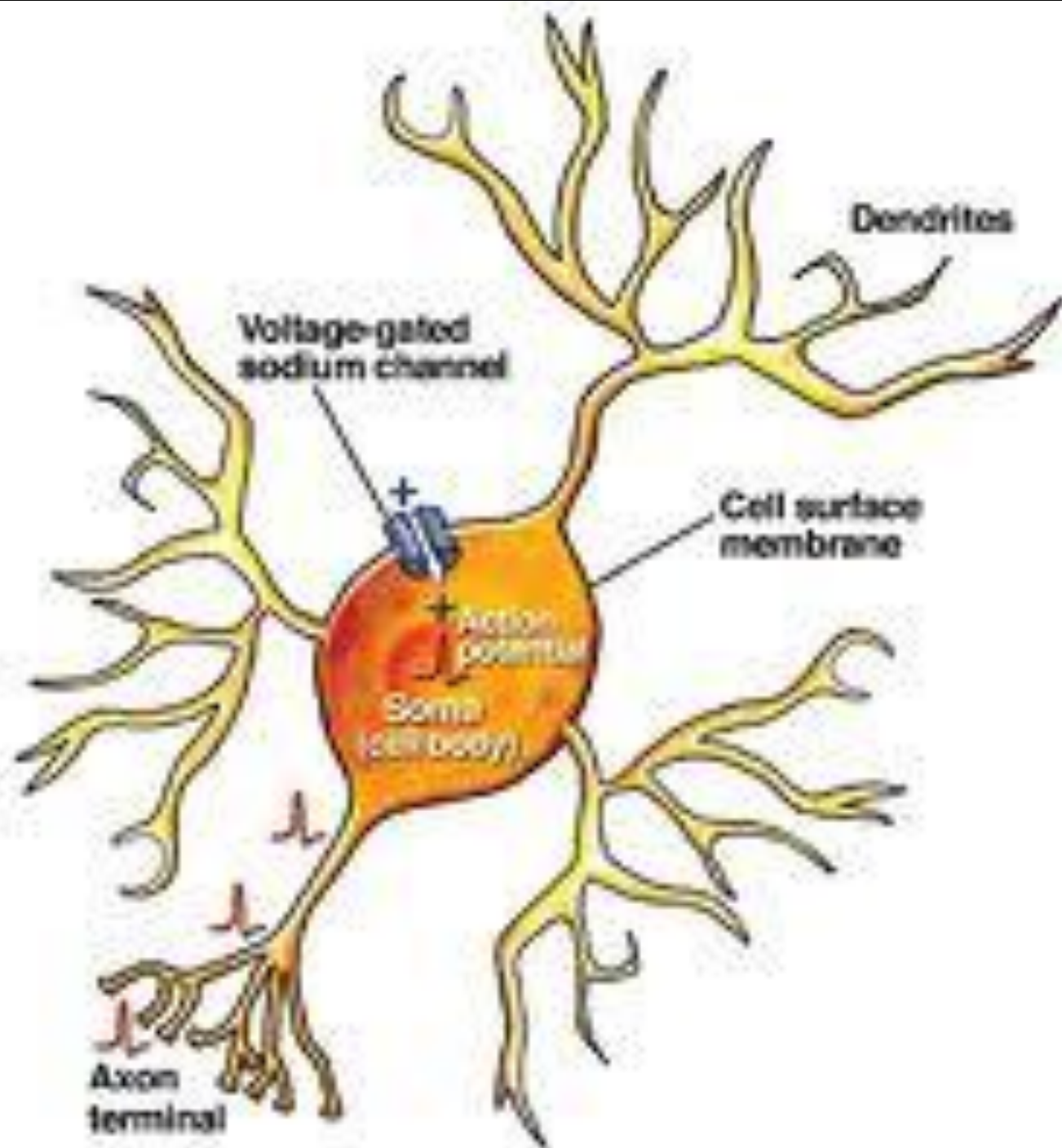


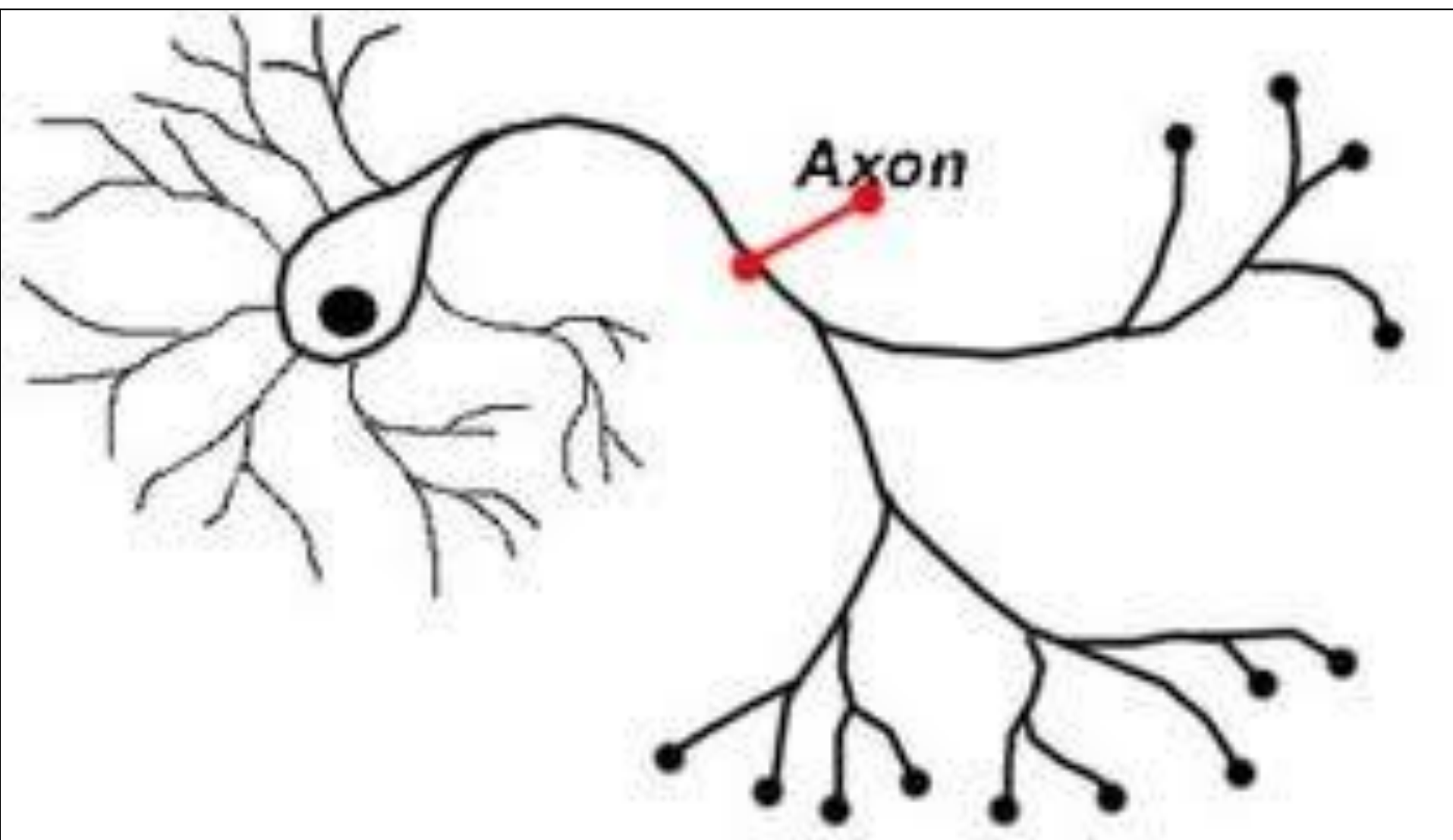
Dopamine Synapse

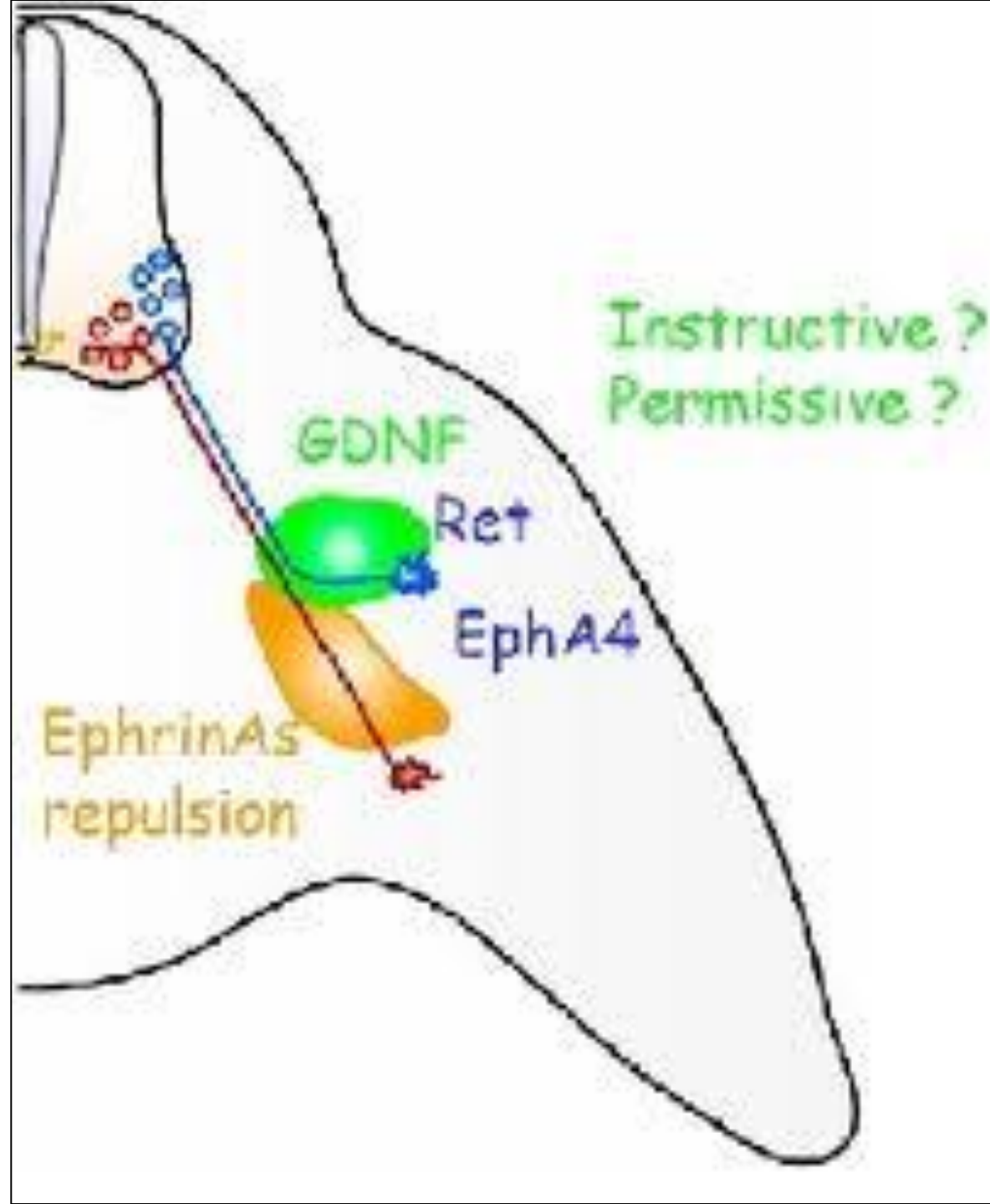








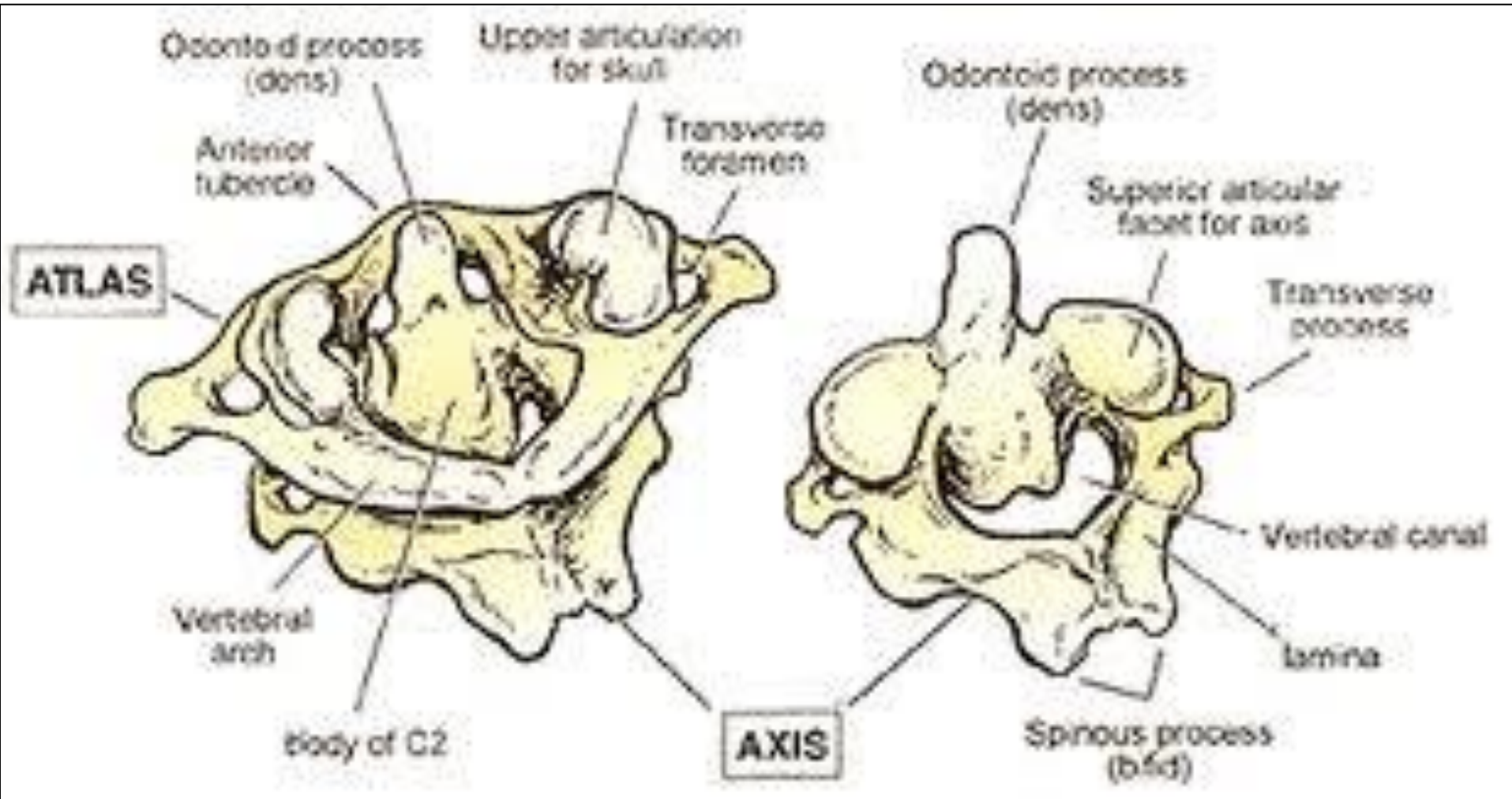




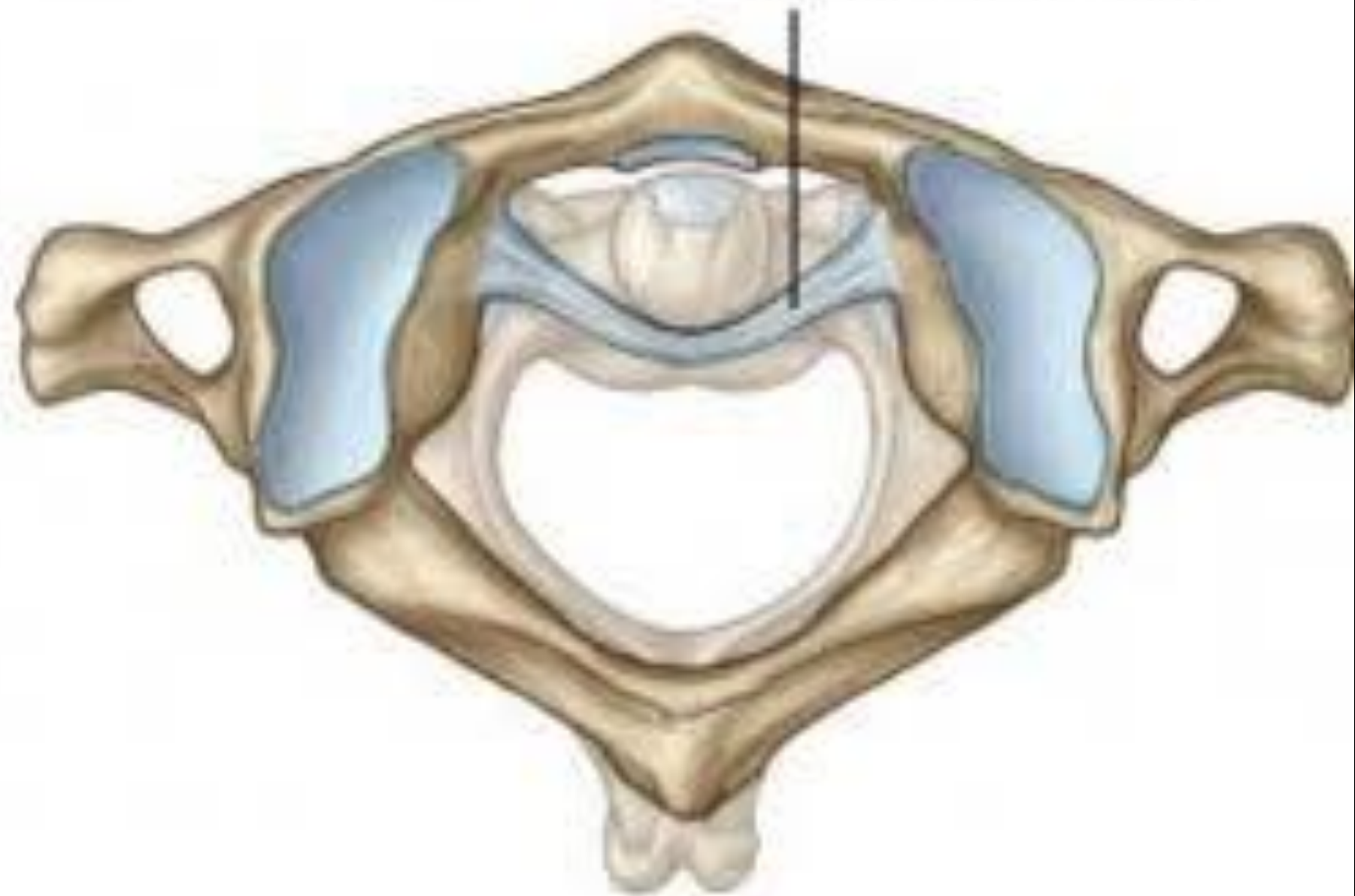
Intervertebral Disc







ligament of atlas

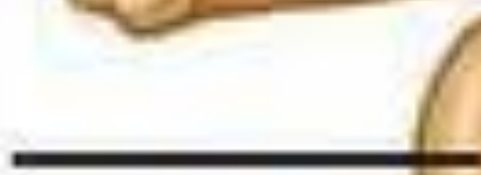




Atlas (C1)



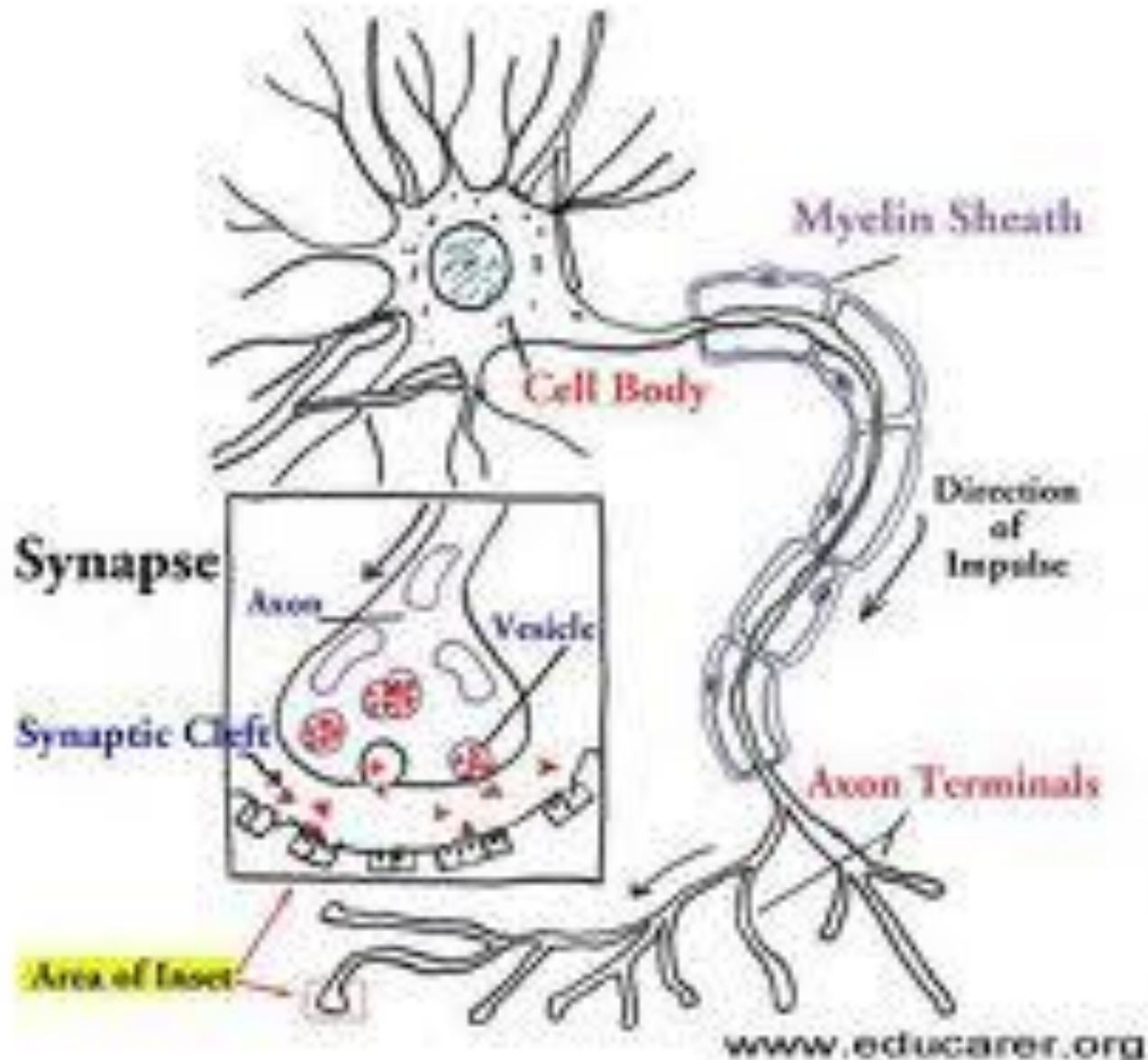
Dens



Axis (C2)

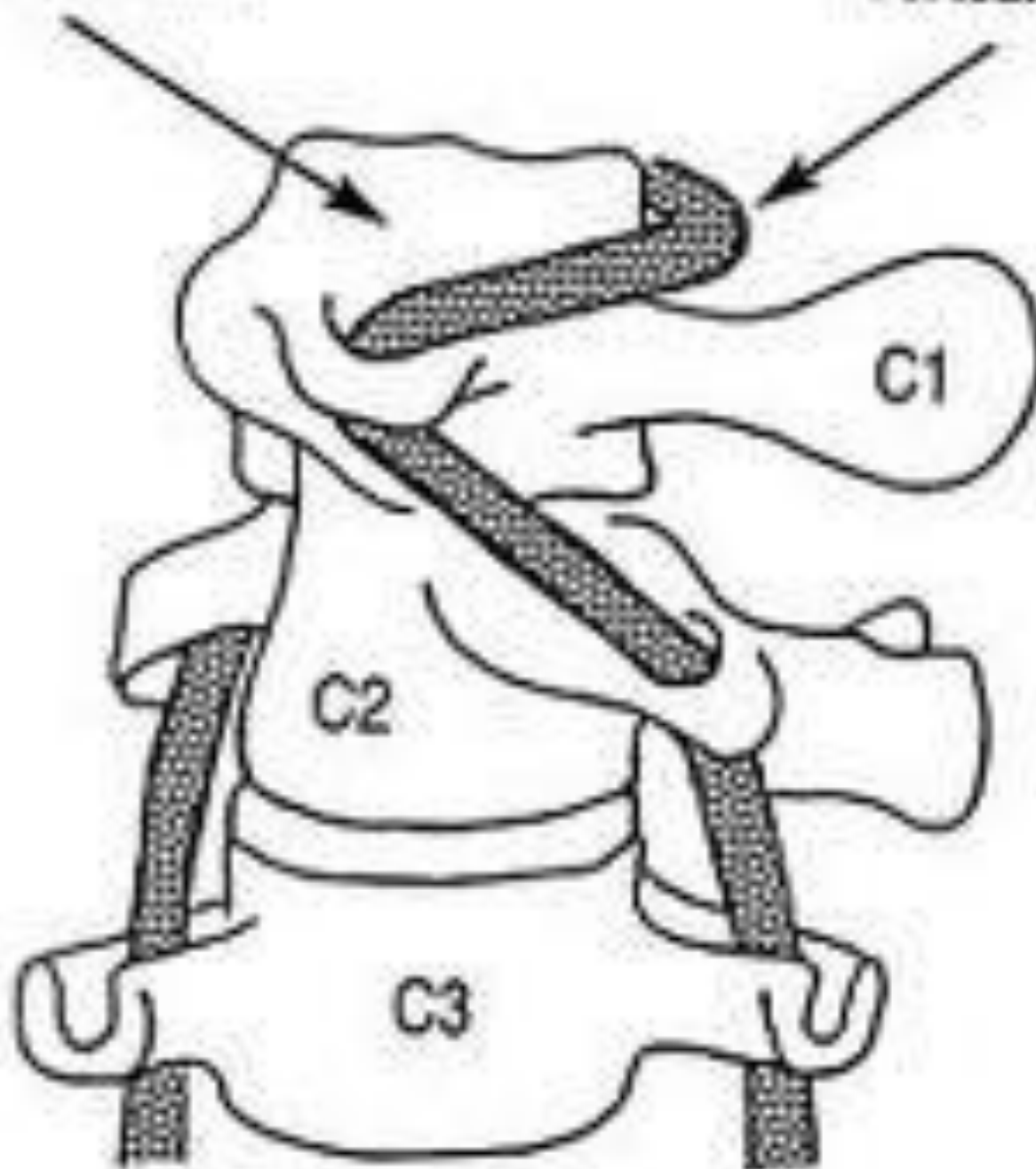


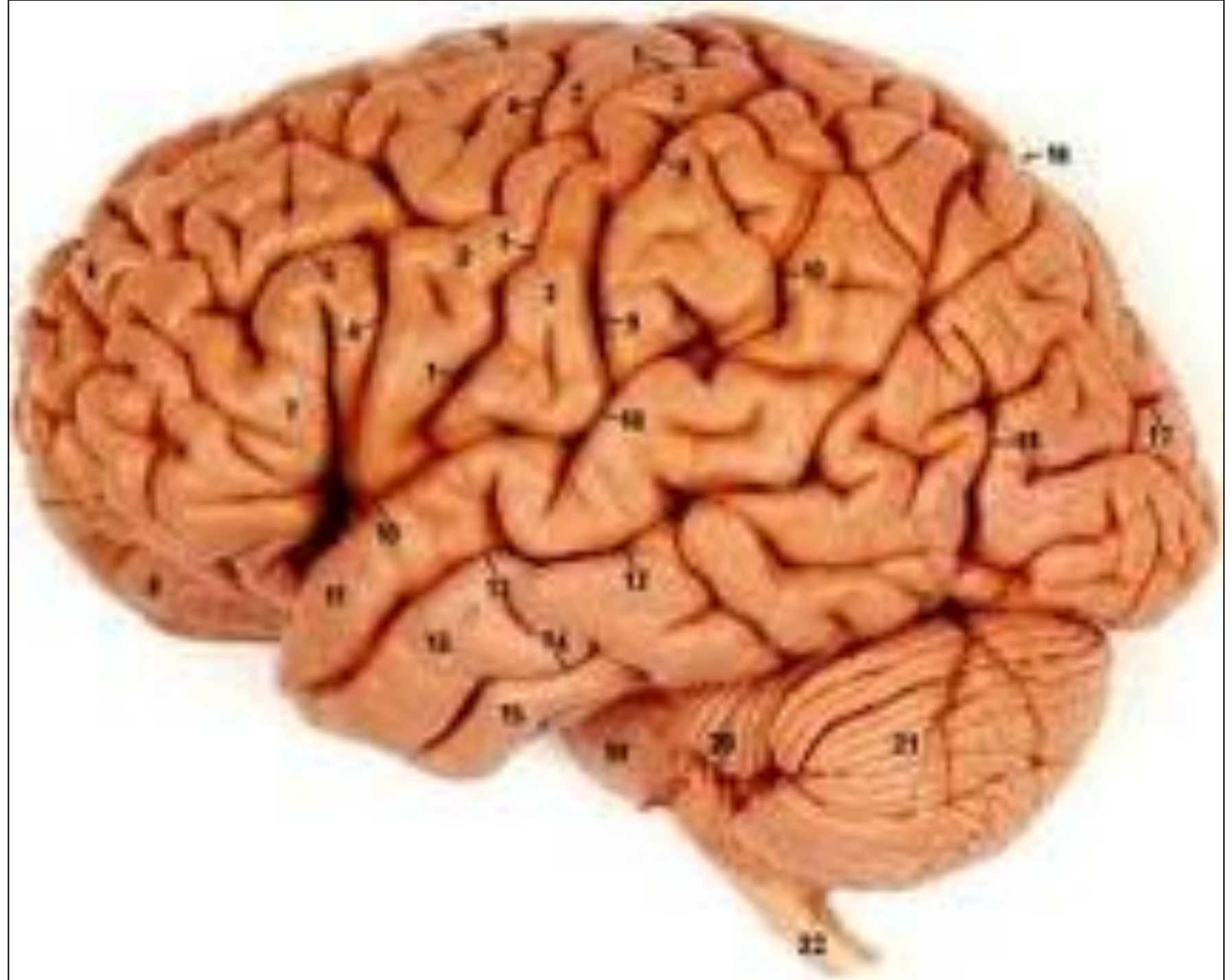
NERVE AXON

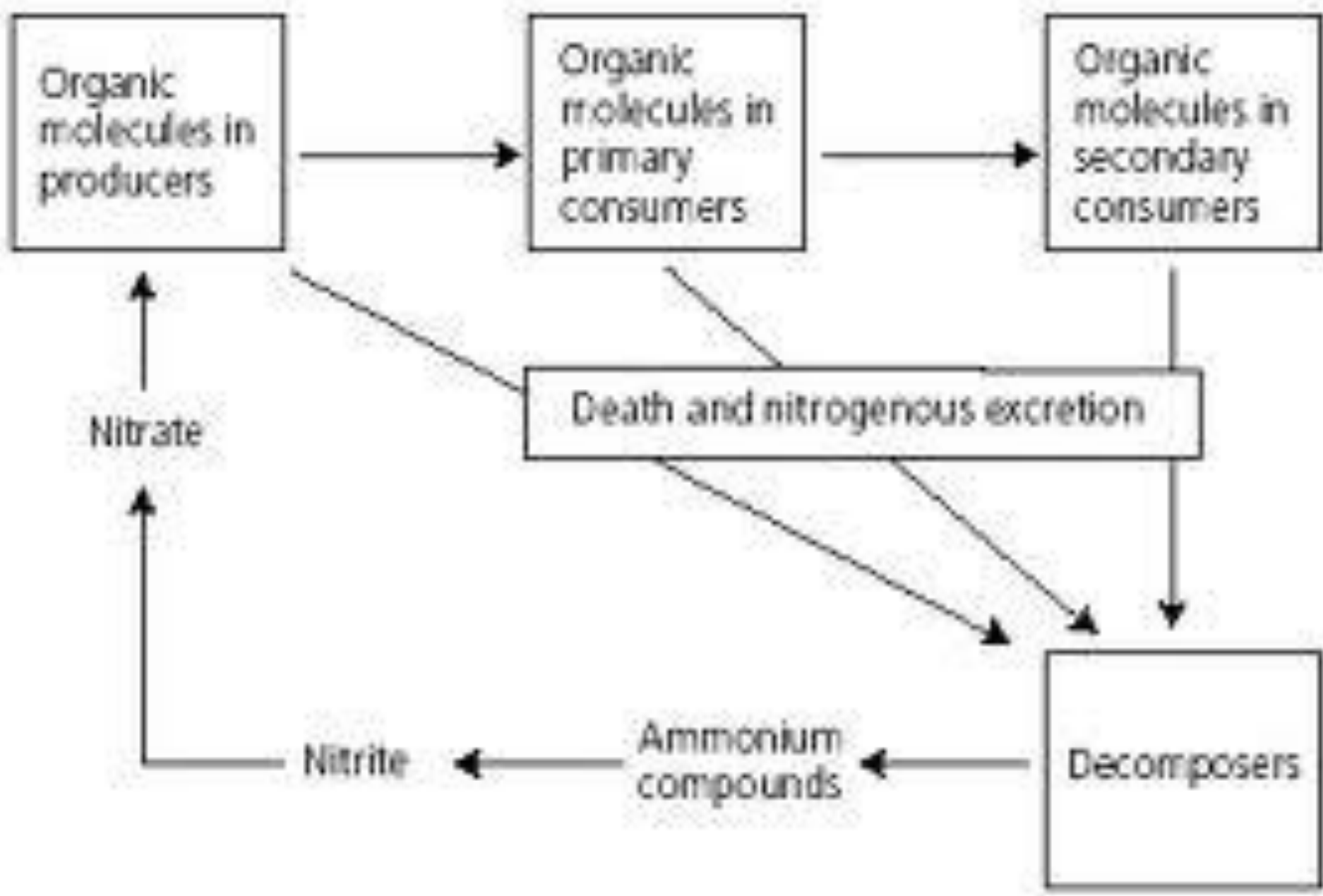


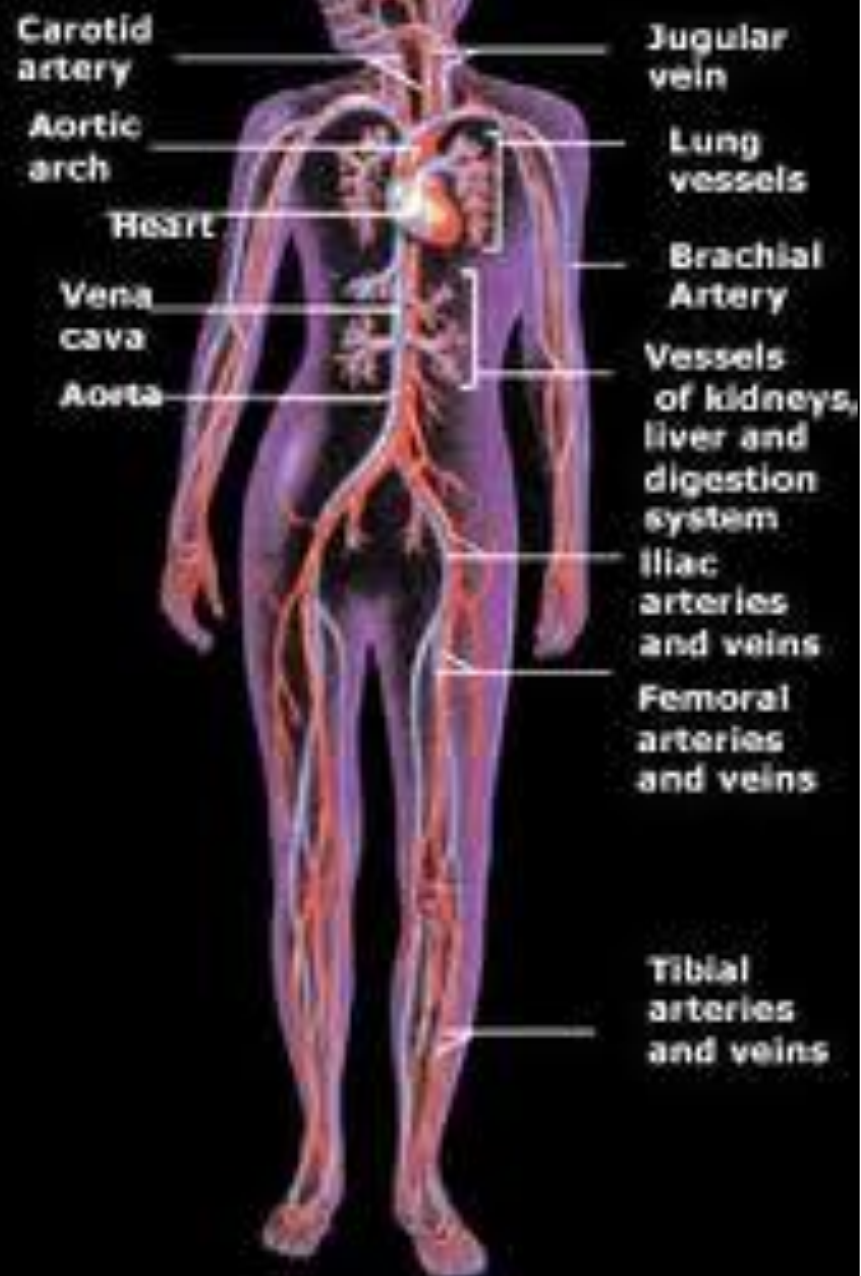
Atlas vertebra

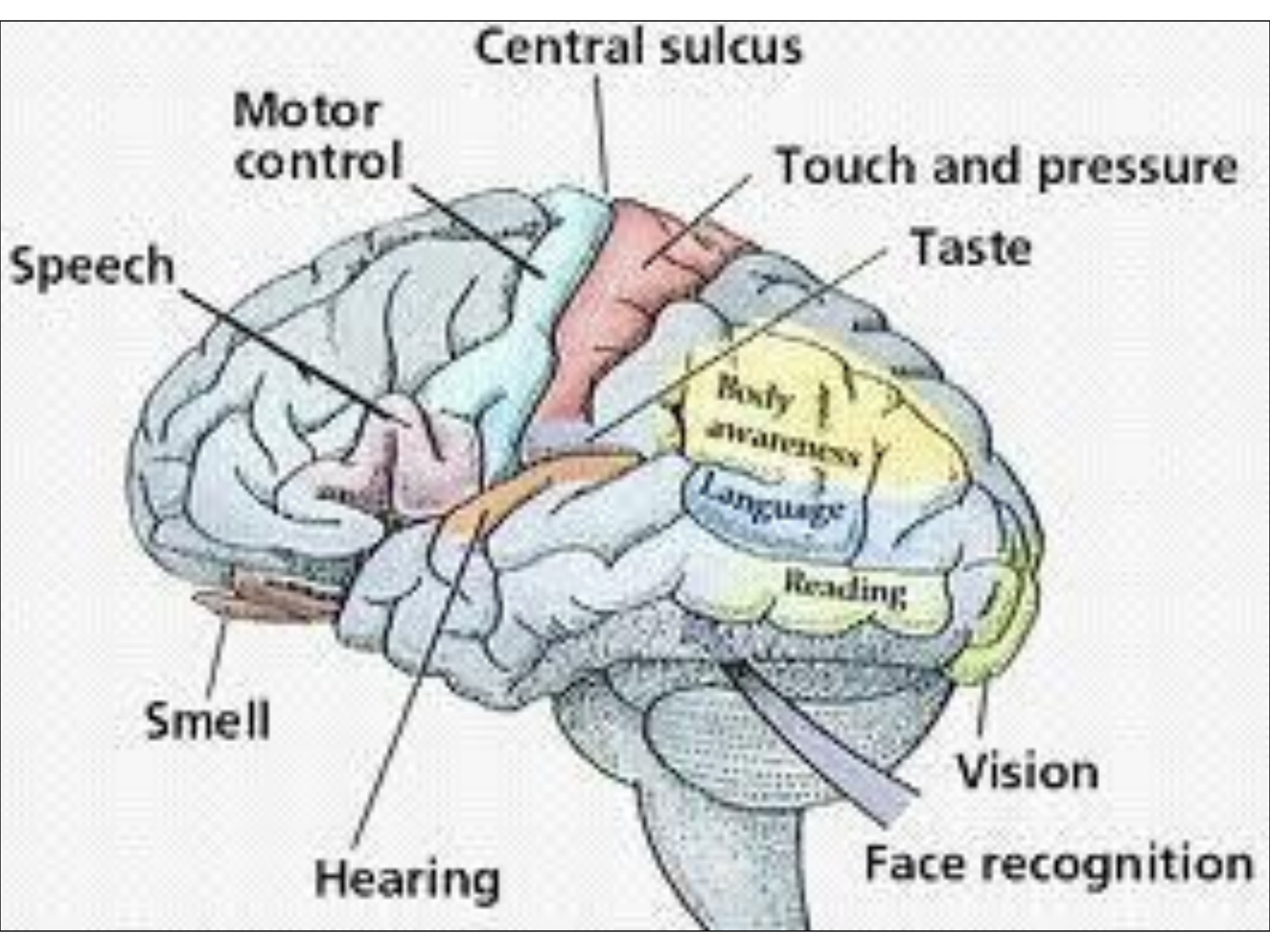
Vertebral artery



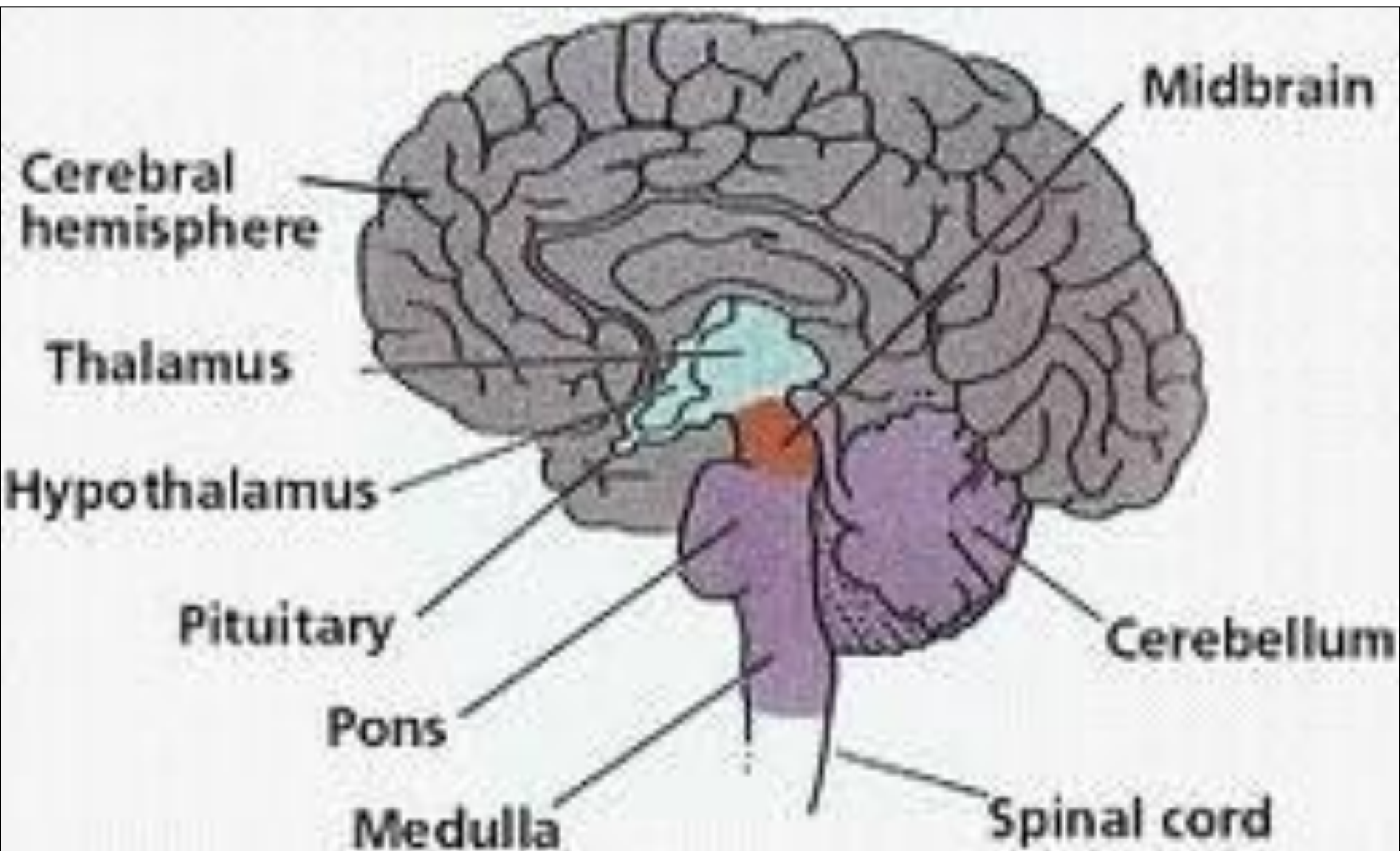




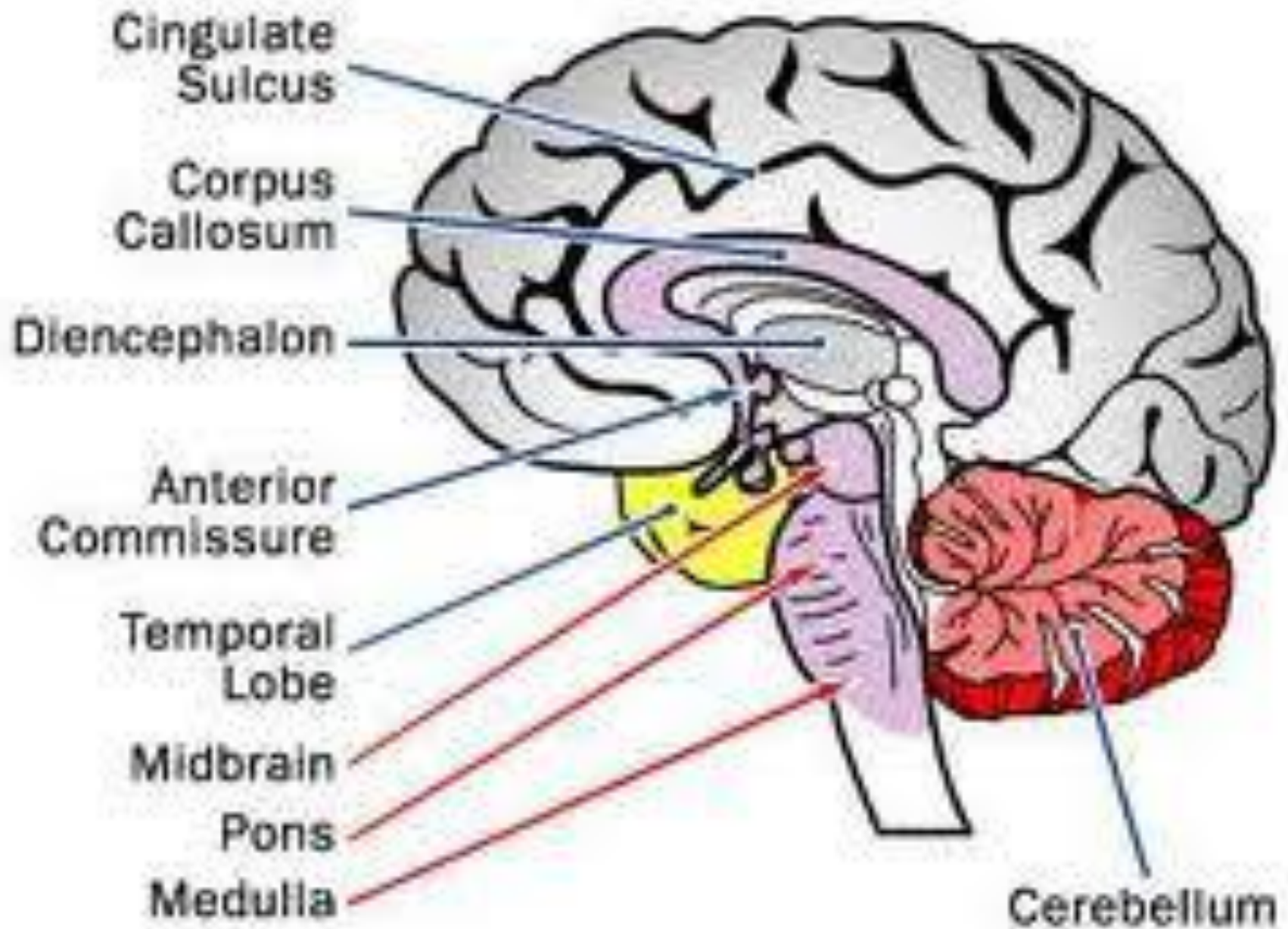






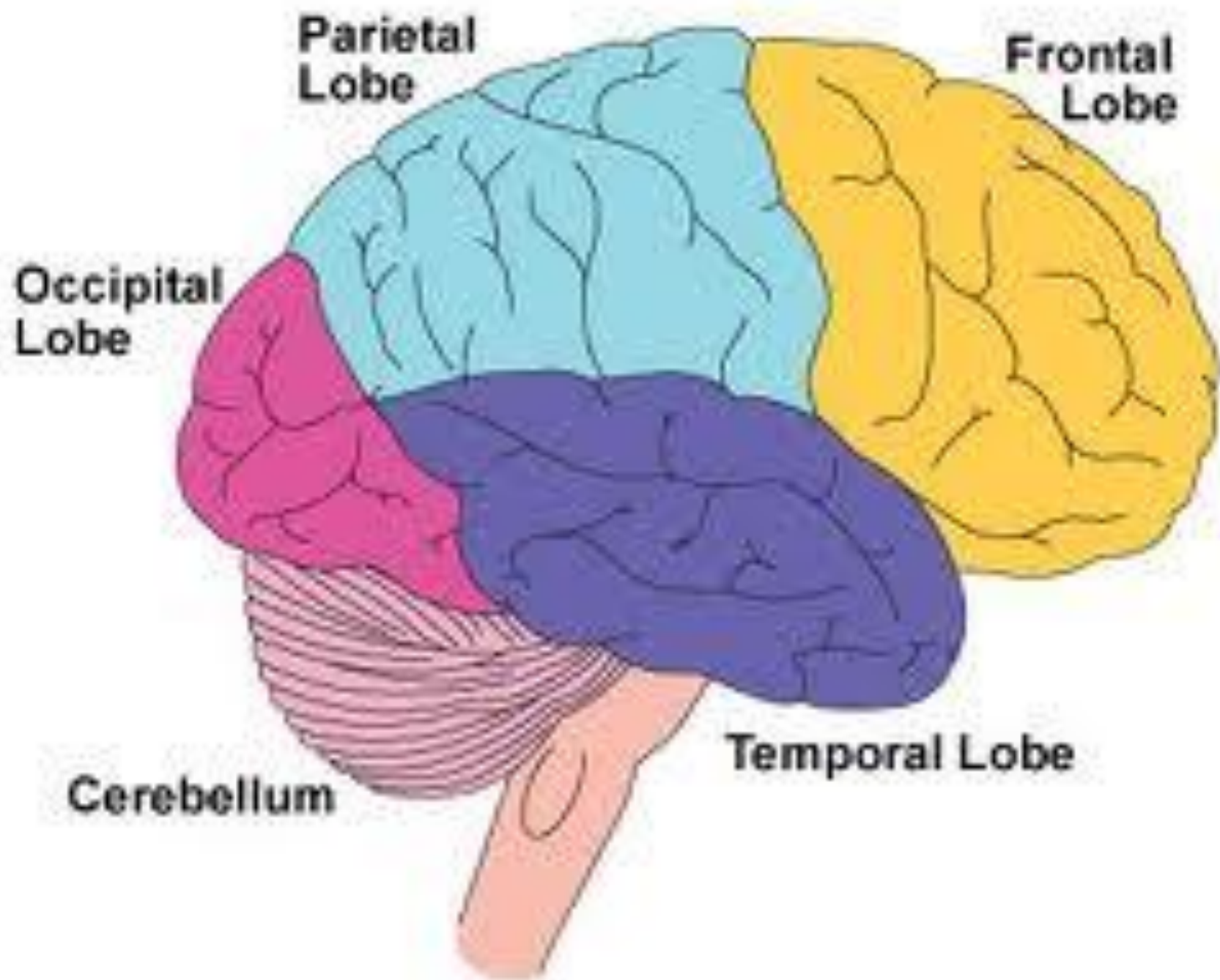


Major Internal Parts of the Human Brain





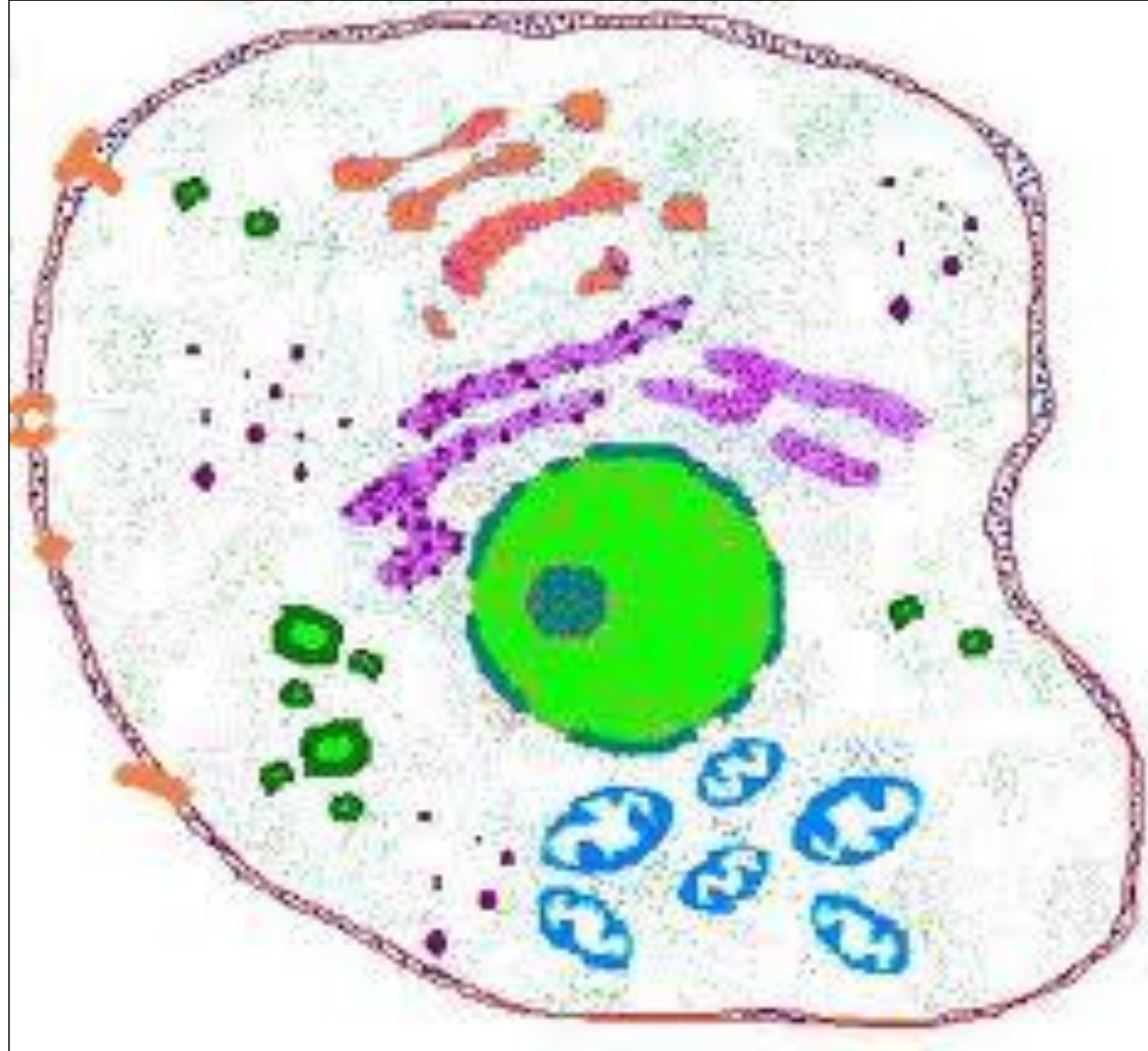






Groove from
bra strap

Disproportionately
large breast



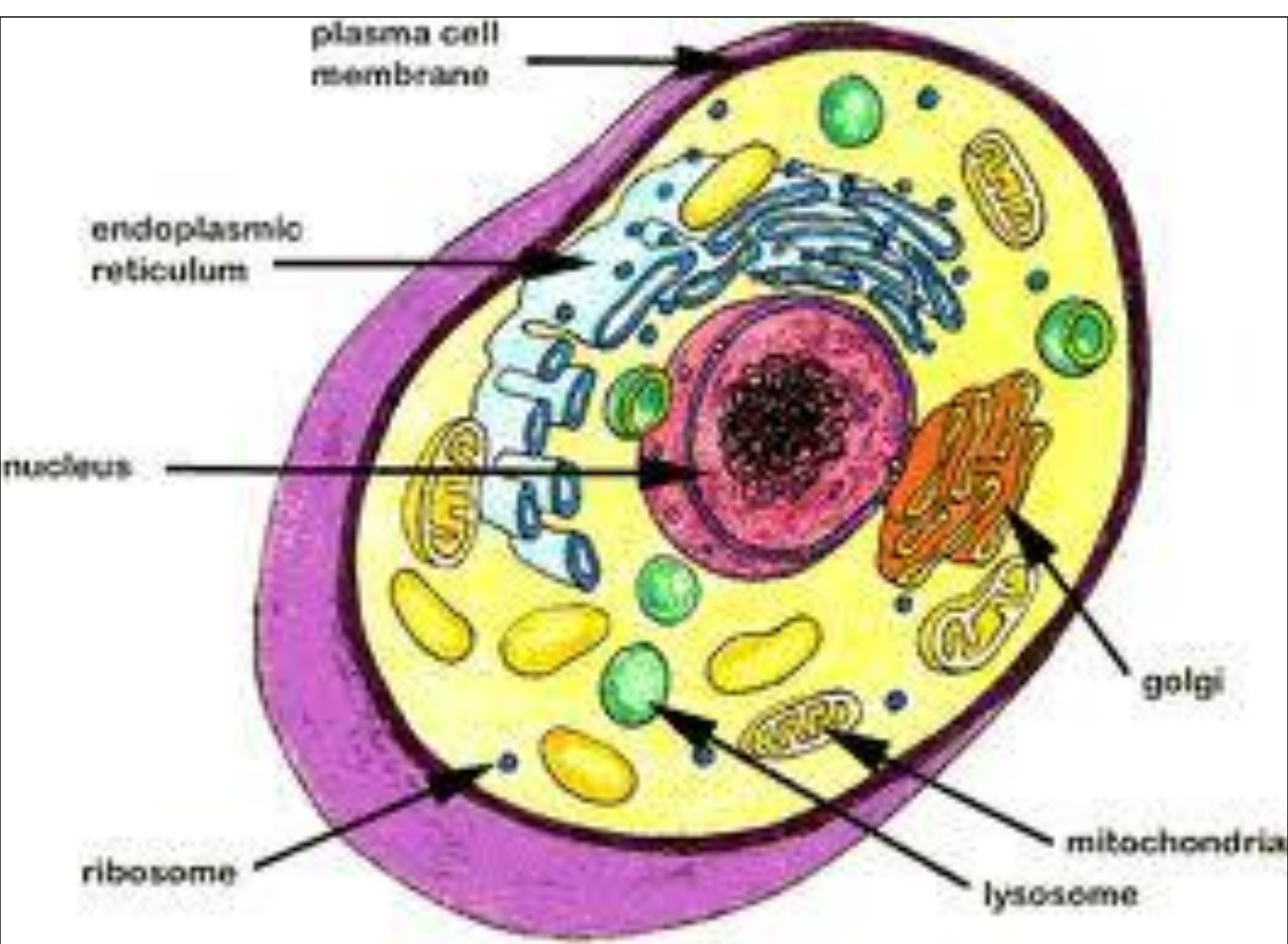


Table 2 : Percentages of required elements supplied to a corn crop by various processes (mass flow, diffusion and root interception)

Nutrient	Amount Needed for 9500 kg Grain ha ⁻¹	Approximate Amount (%) Supplied by:		
		Mass Flow	Diffusion	Root Interception
Nitrogen	190	79	20	1
Phosphorous	40	5	93	2
Potassium	195	18	80	2
Calcium	40	375	0	150
Magnesium	45	222	0	33
Sulfur	22	295	0	5

Source: Barber, 1984

Total Competitive Response (TCR)

$$= \ln\left(\frac{T_{AN}}{T_{NN}}\right) \quad (1)$$

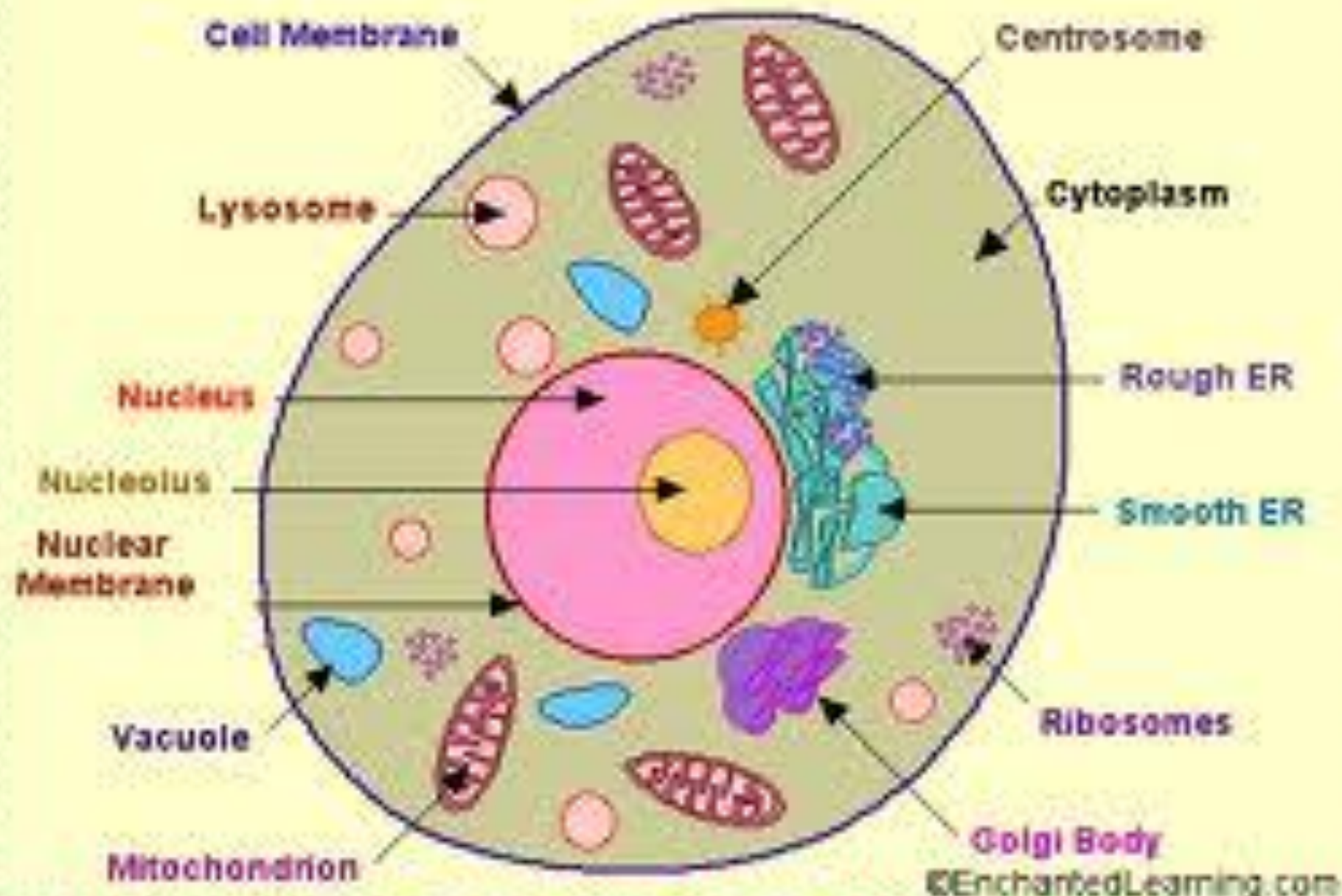
Aboveground Competitive Response (ACR)

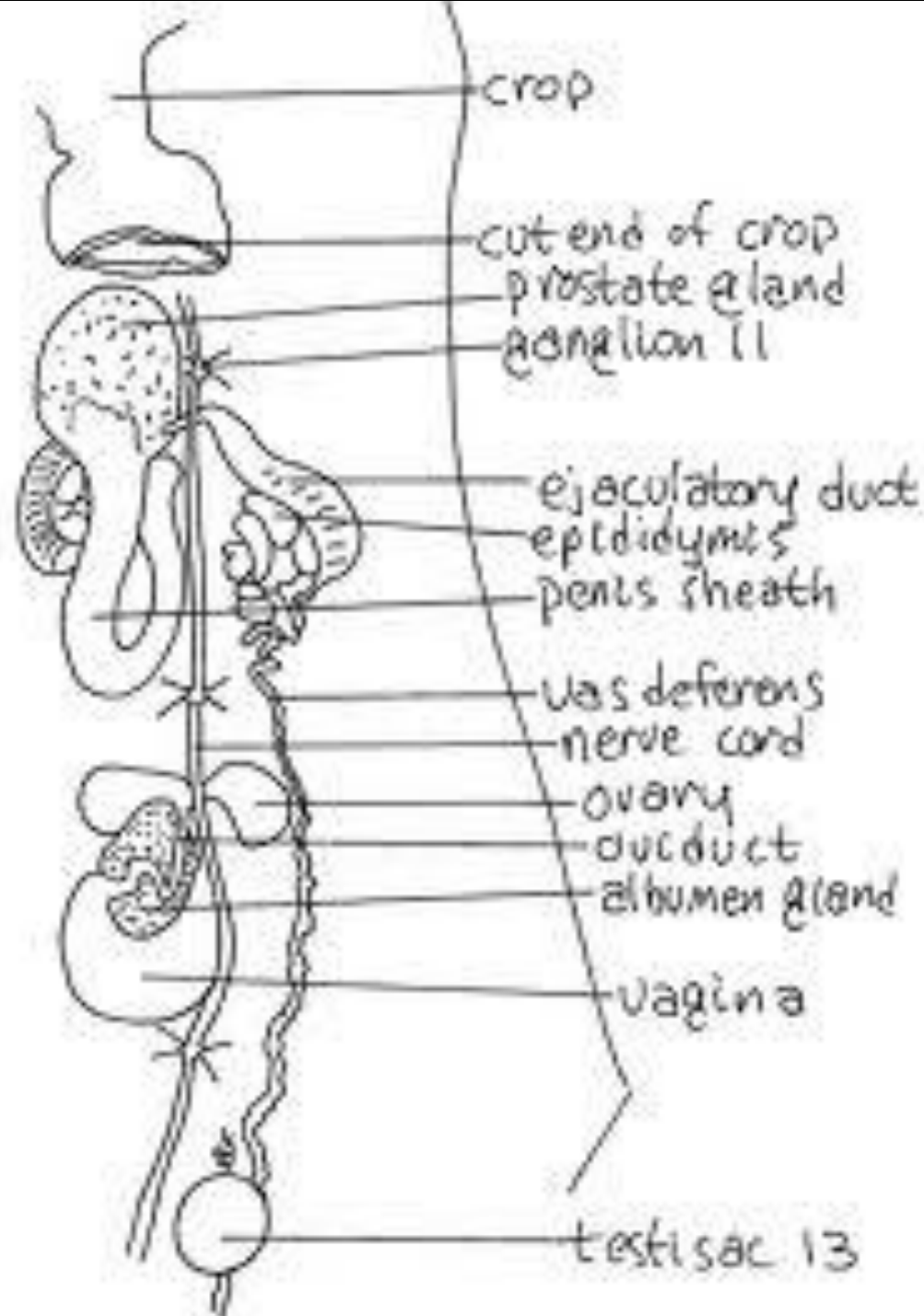
$$= \ln\left(\frac{T_{SN}}{T_{NN}}\right) \quad (2)$$

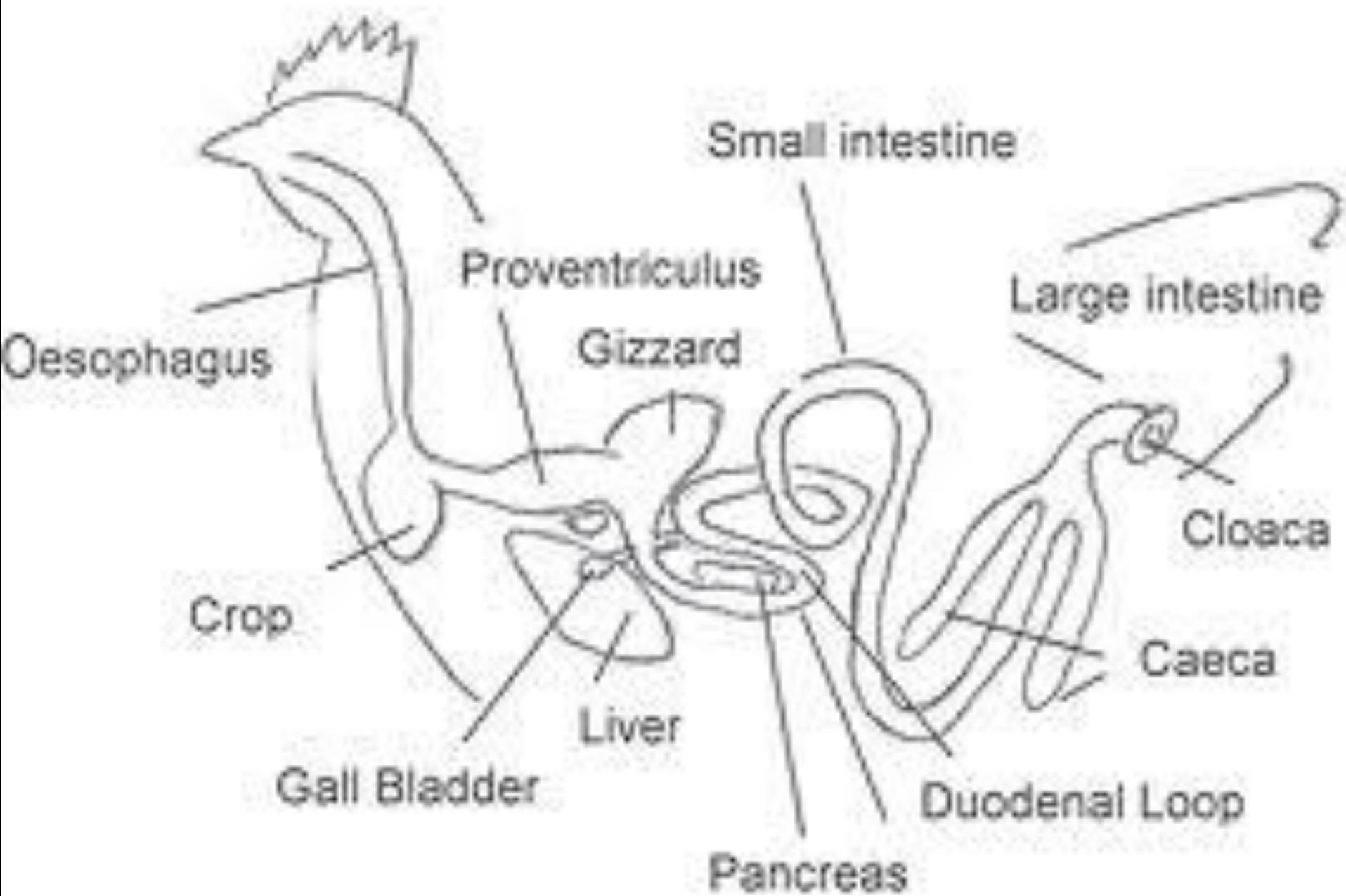
Belowground Competitive Response (BCR)

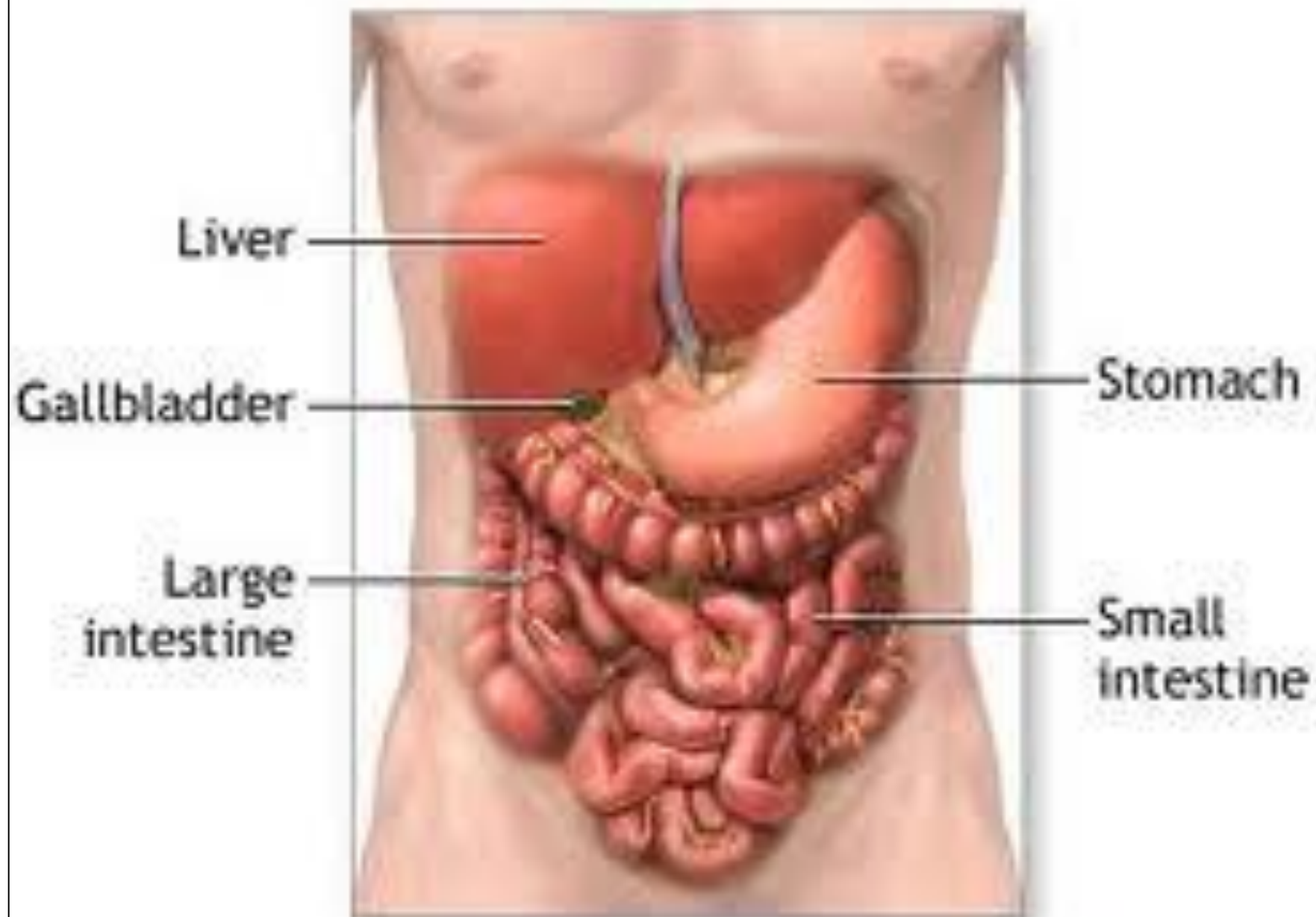
$$= \ln\left(\frac{T_{RN}}{T_{NN}}\right) \quad (3)$$

Cross-Section of an Animal Cell

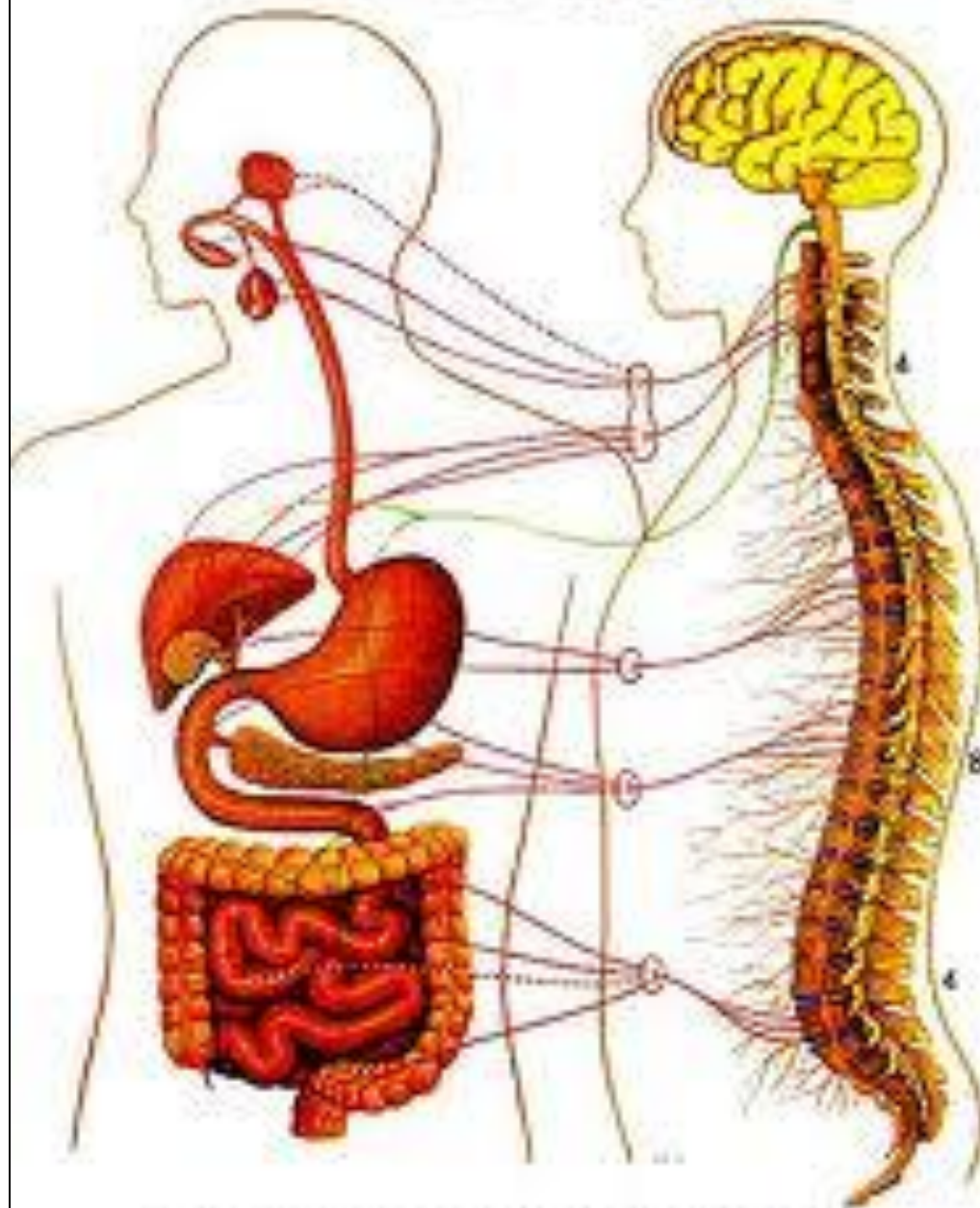


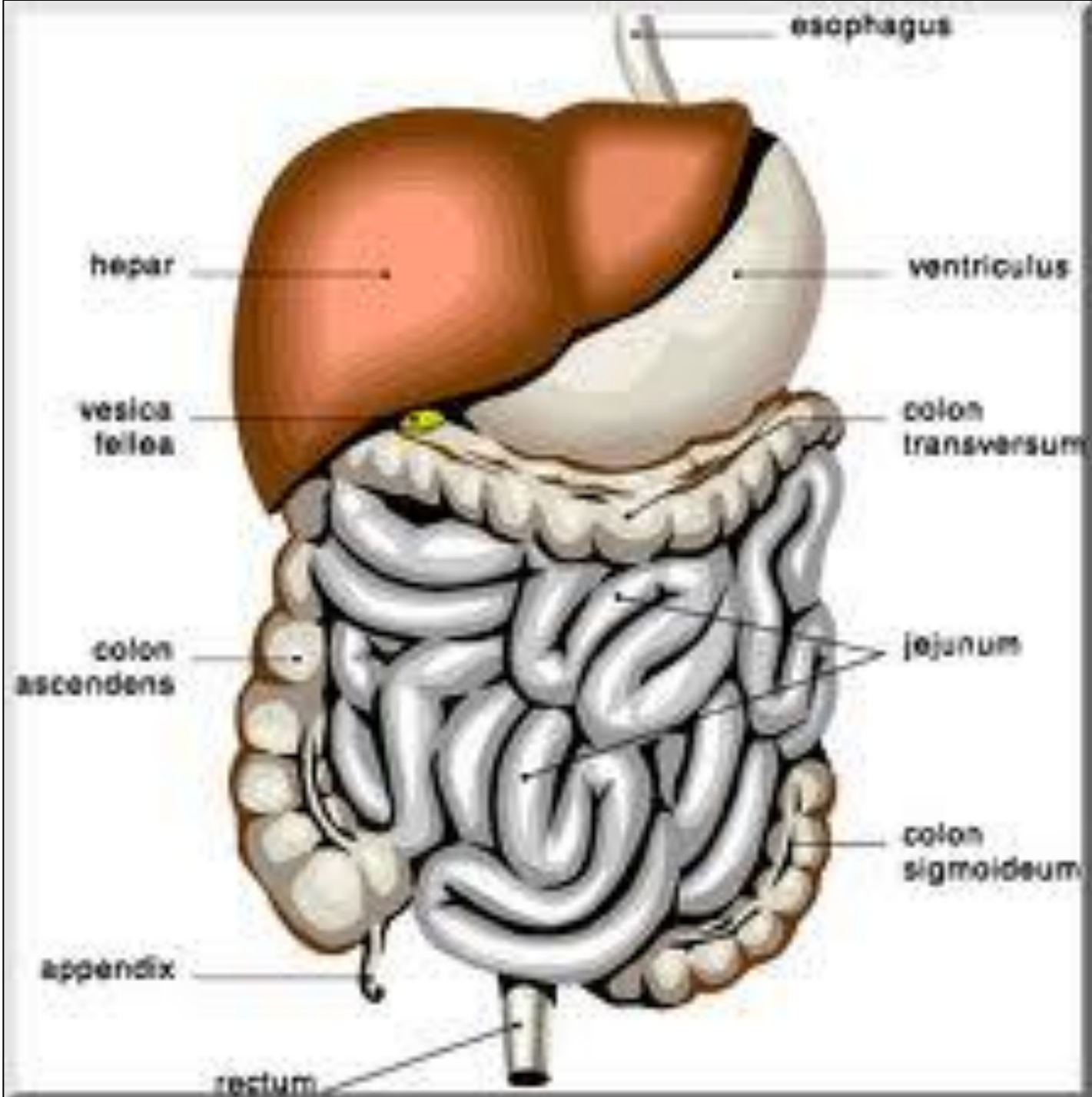


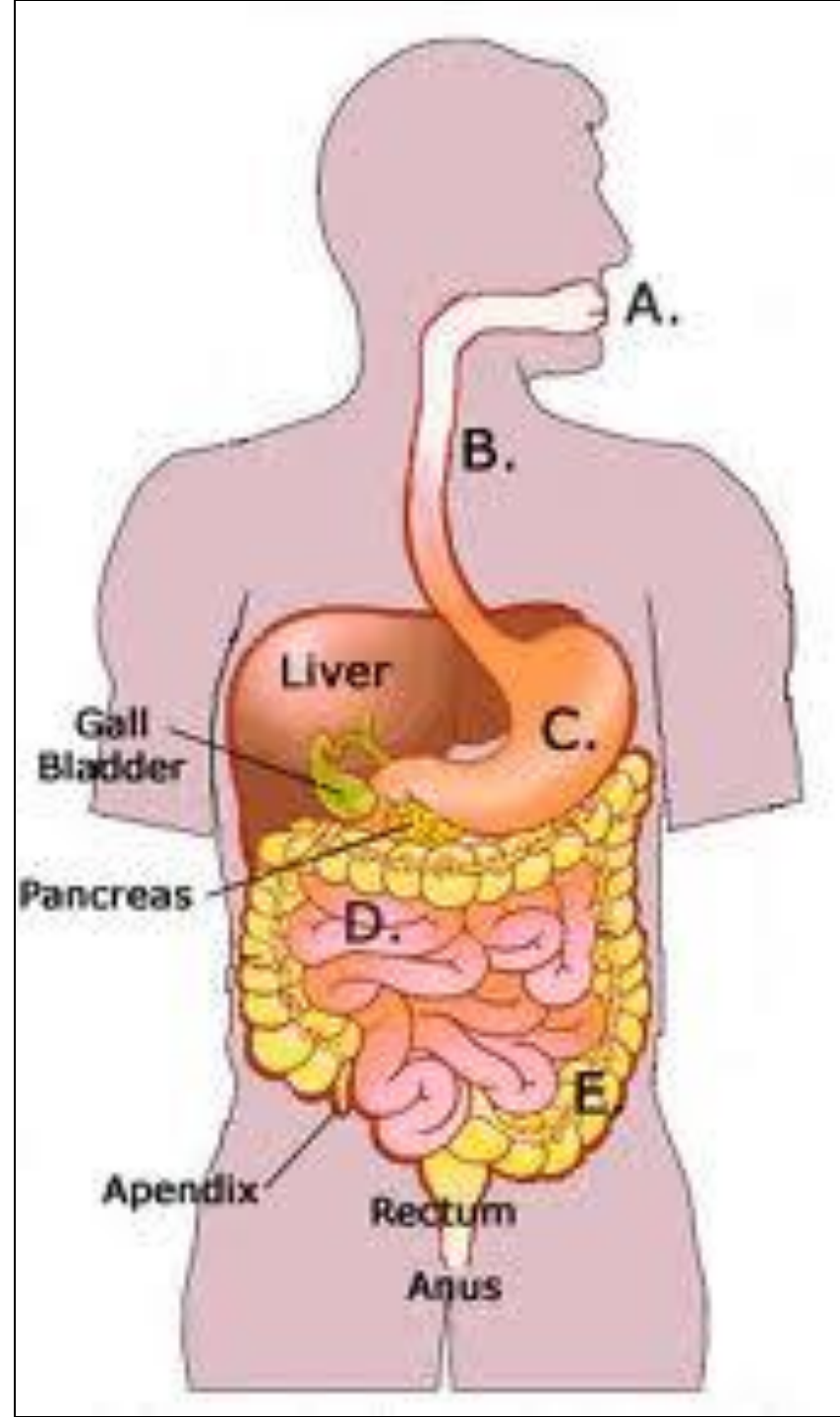


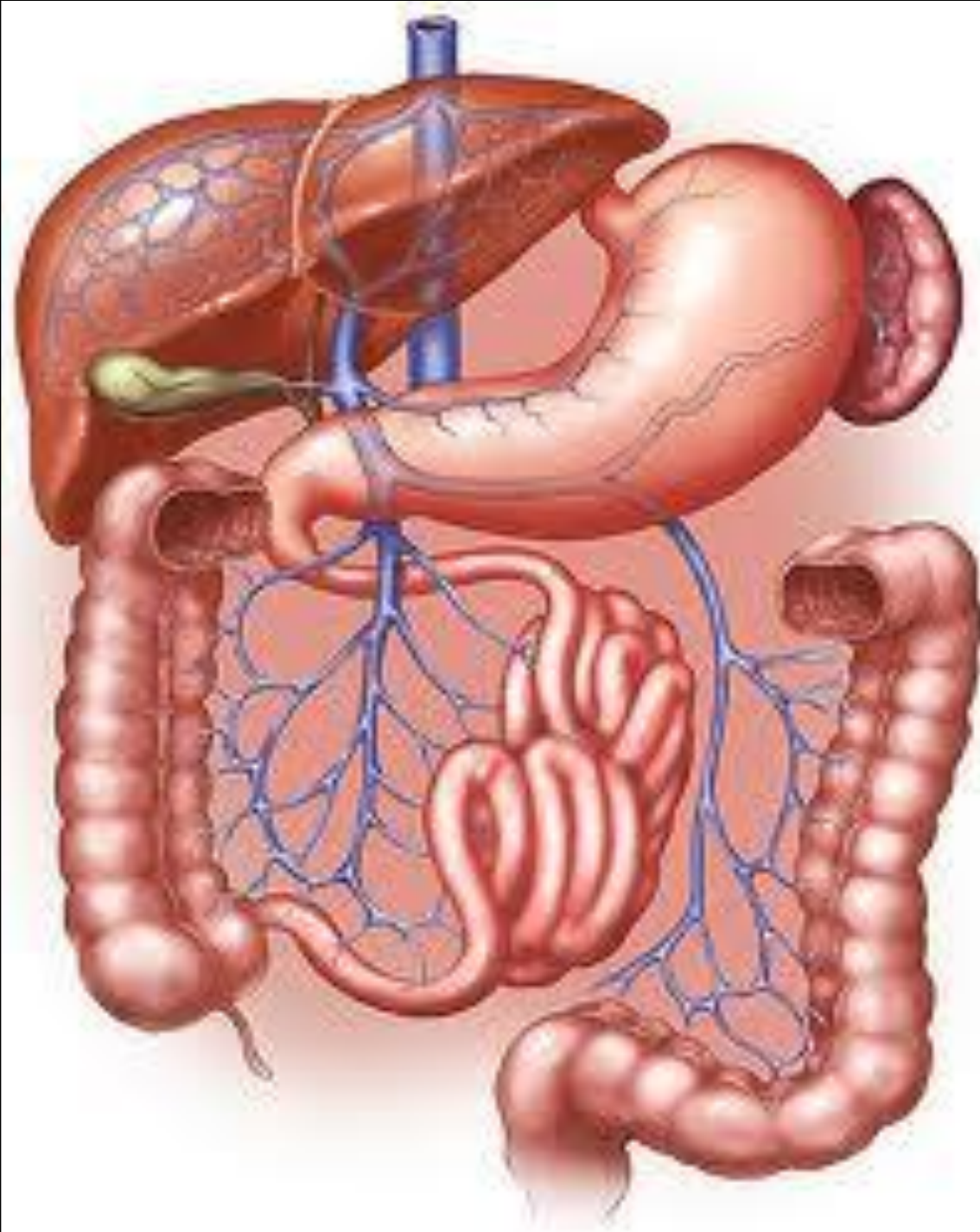


DIGESTIVE SYSTEM

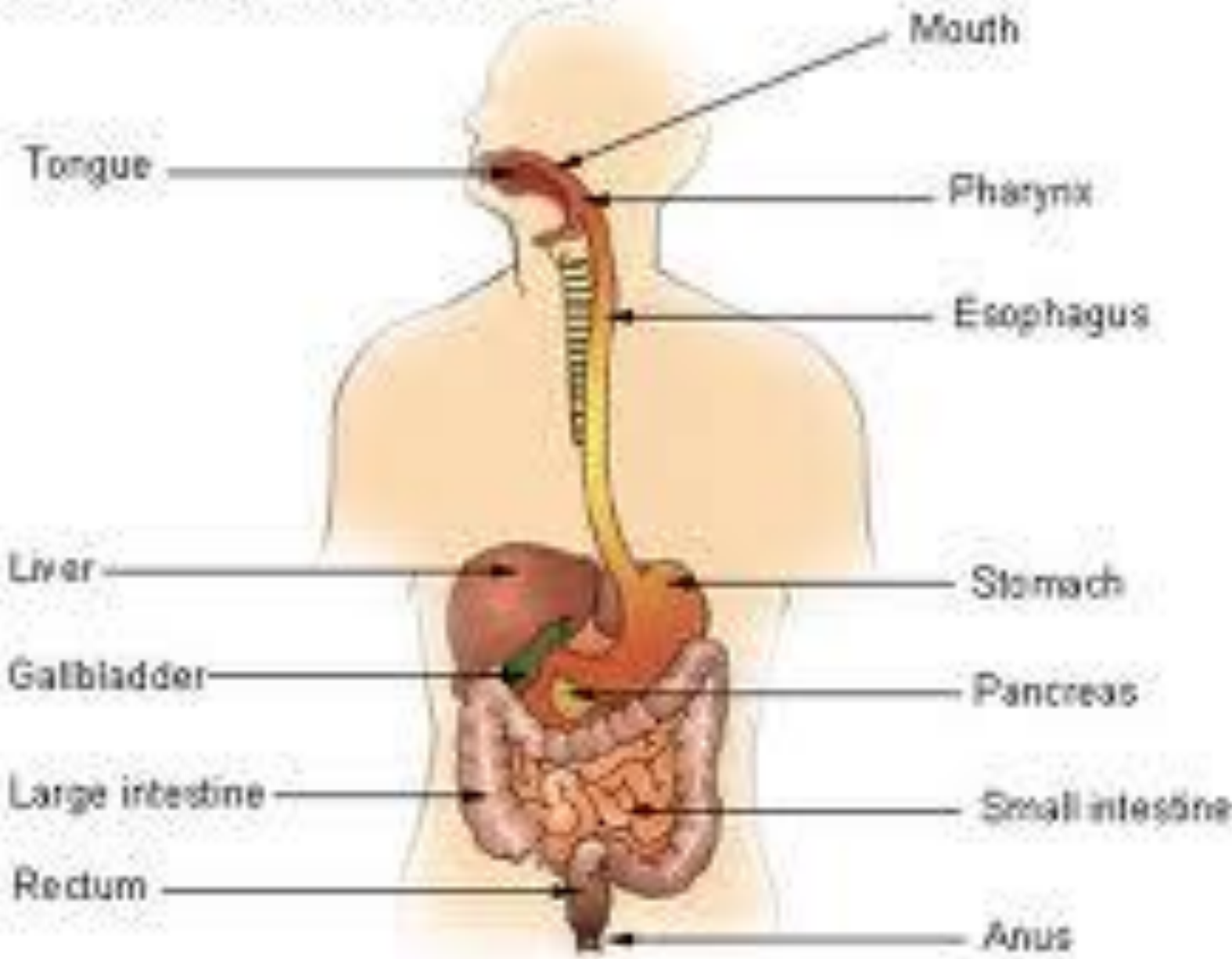


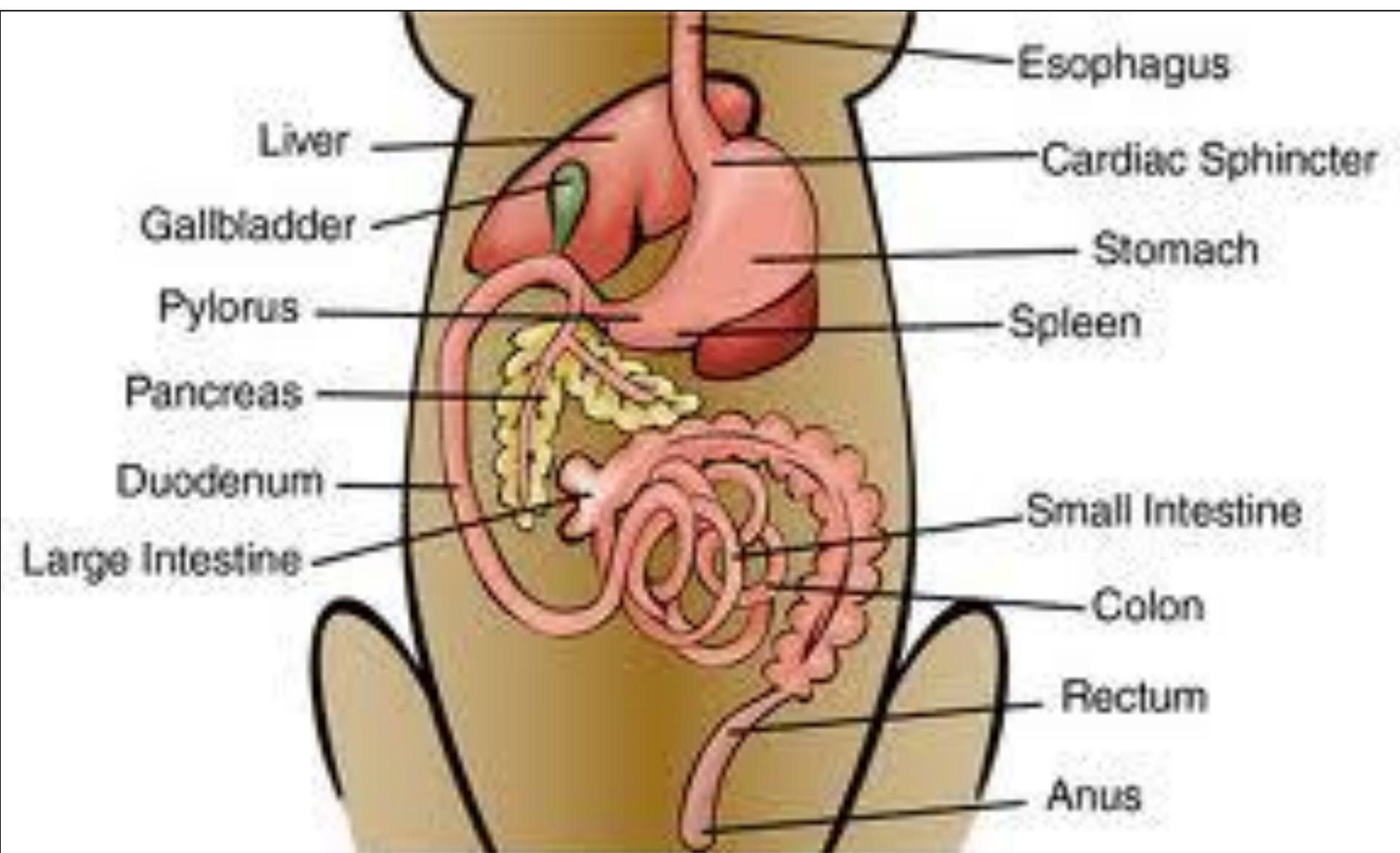






Organs of the Digestive System







Salivary glands

Esophagus

Stomach

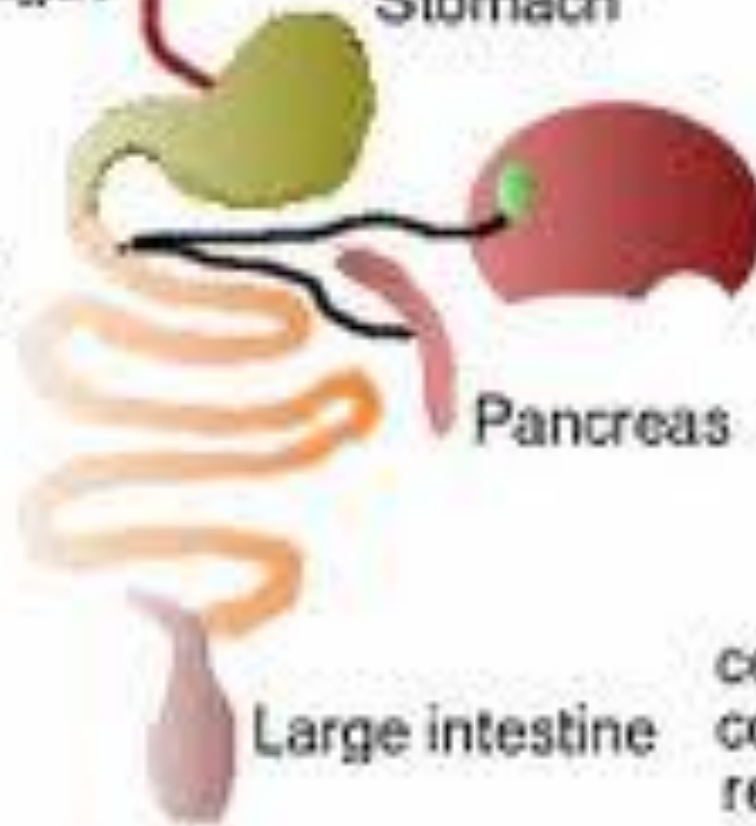
Liver and
gallbladder

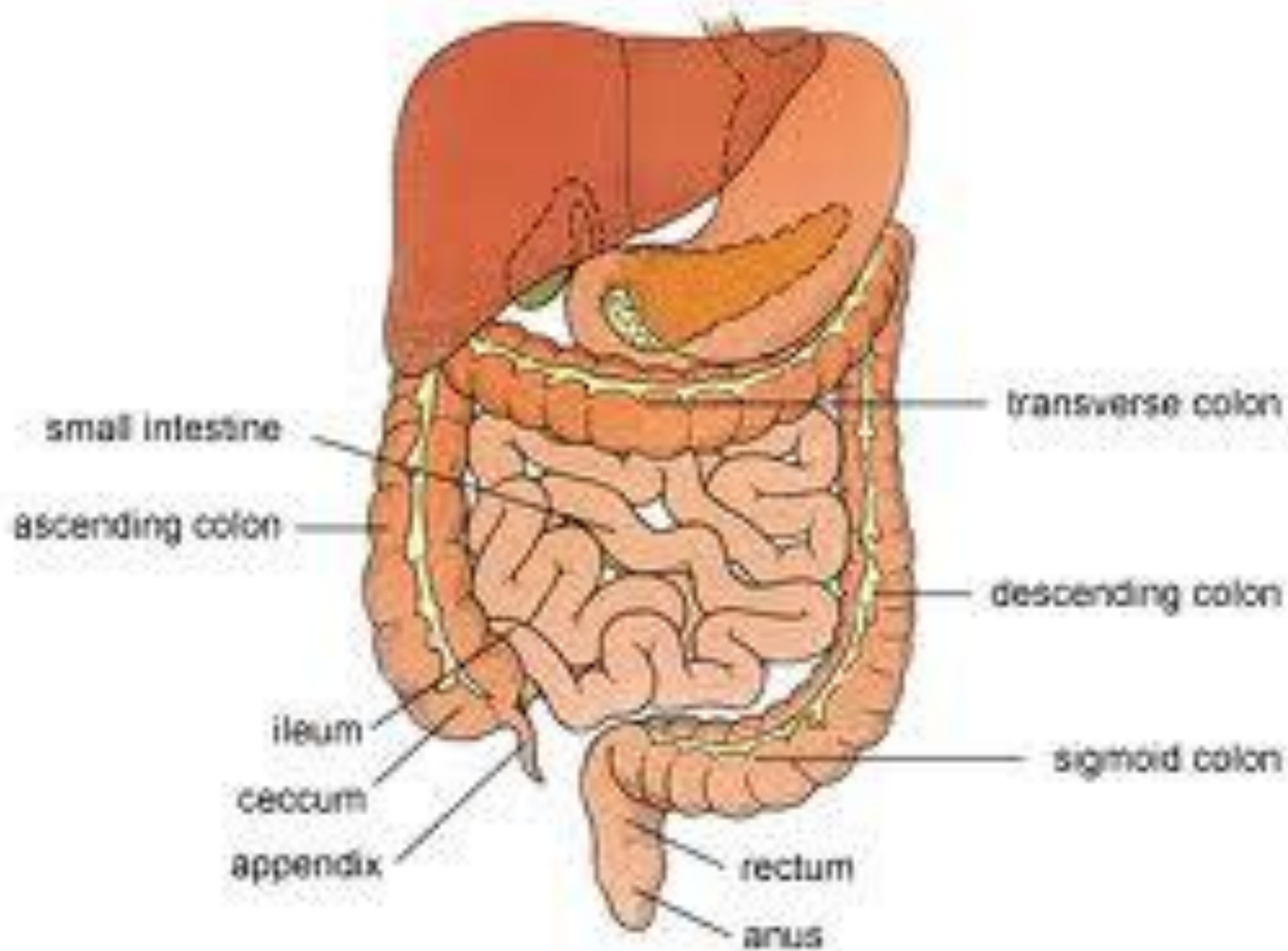
Small intestine
duodenum
jejunum
ileum

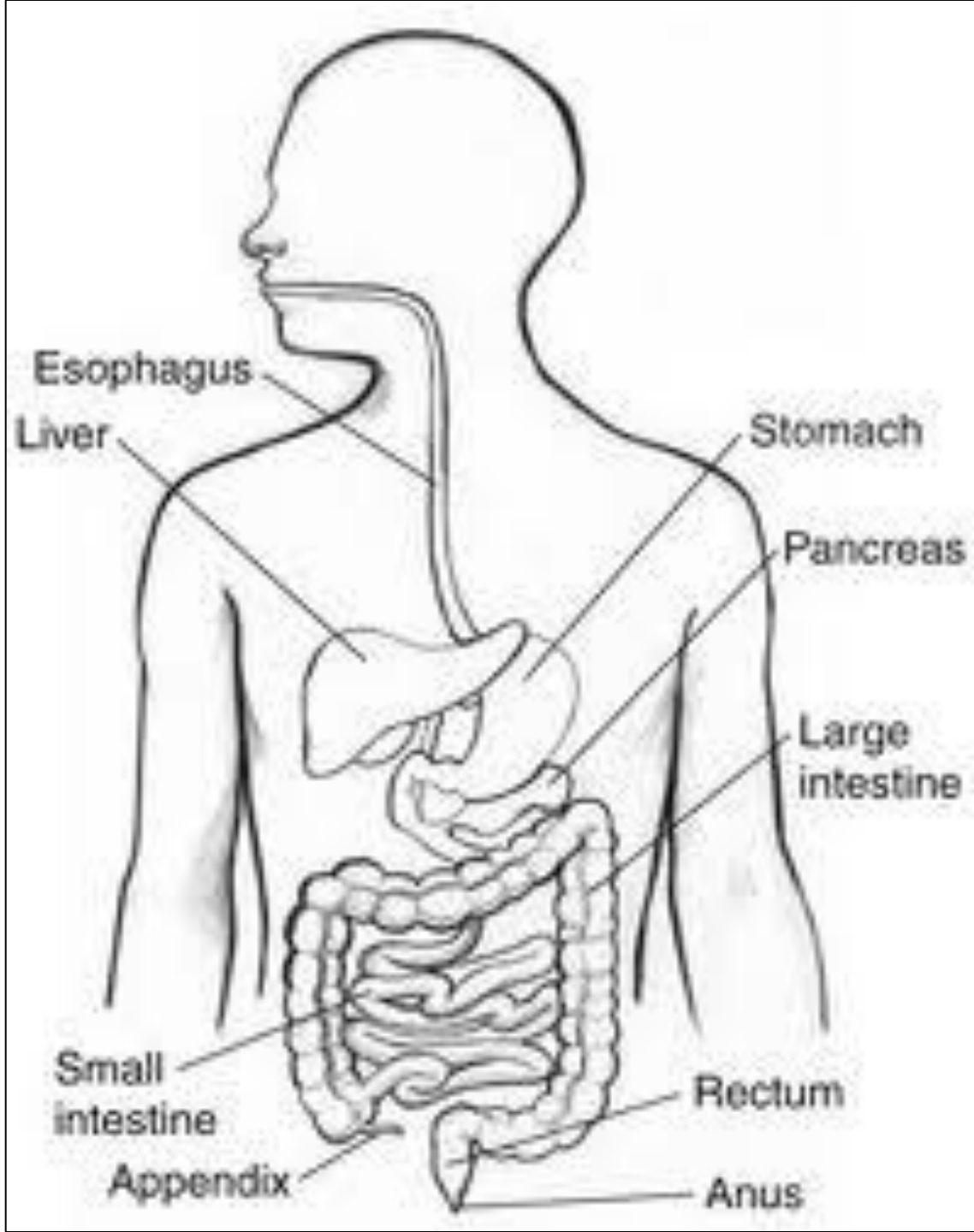
Pancreas

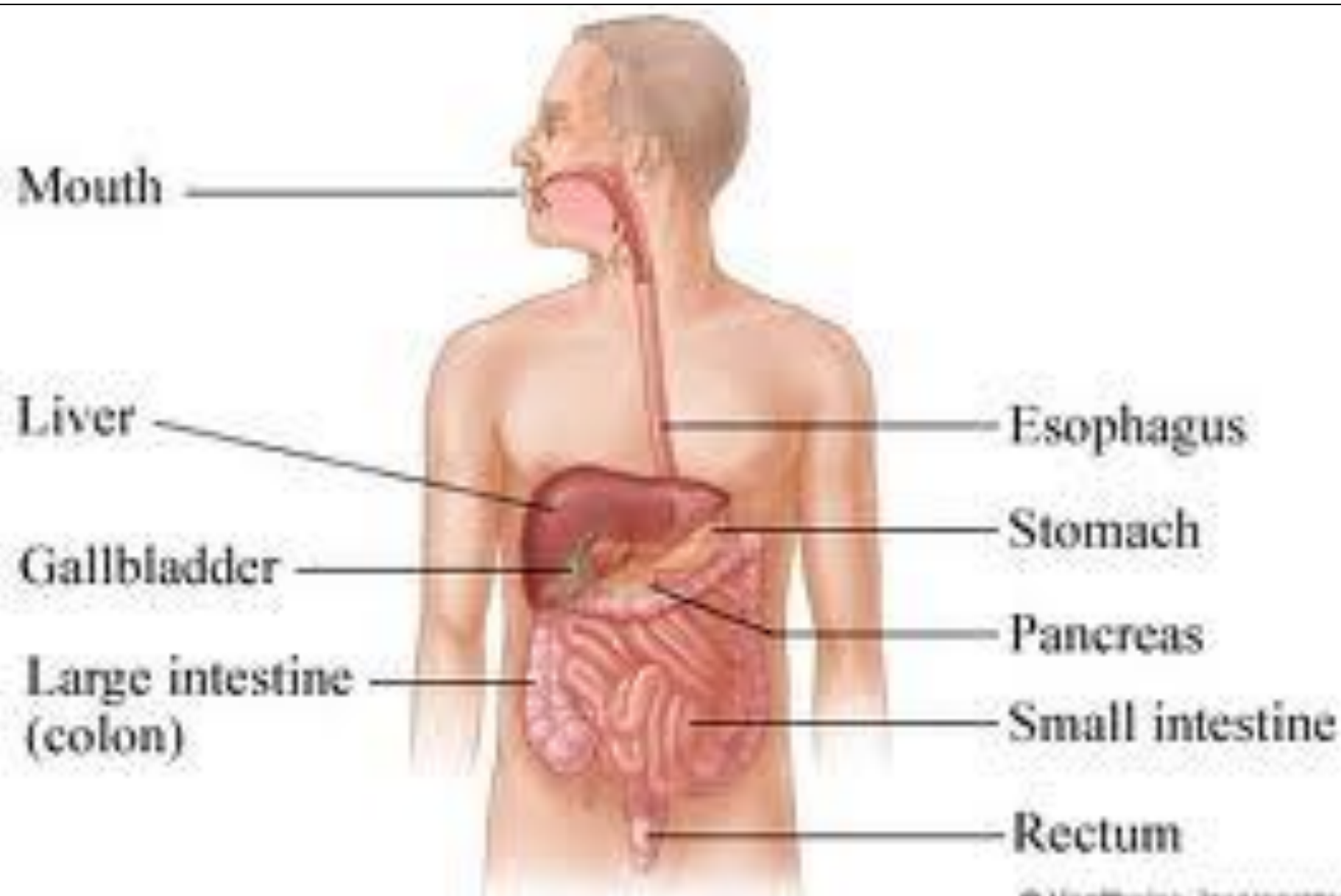
Large intestine

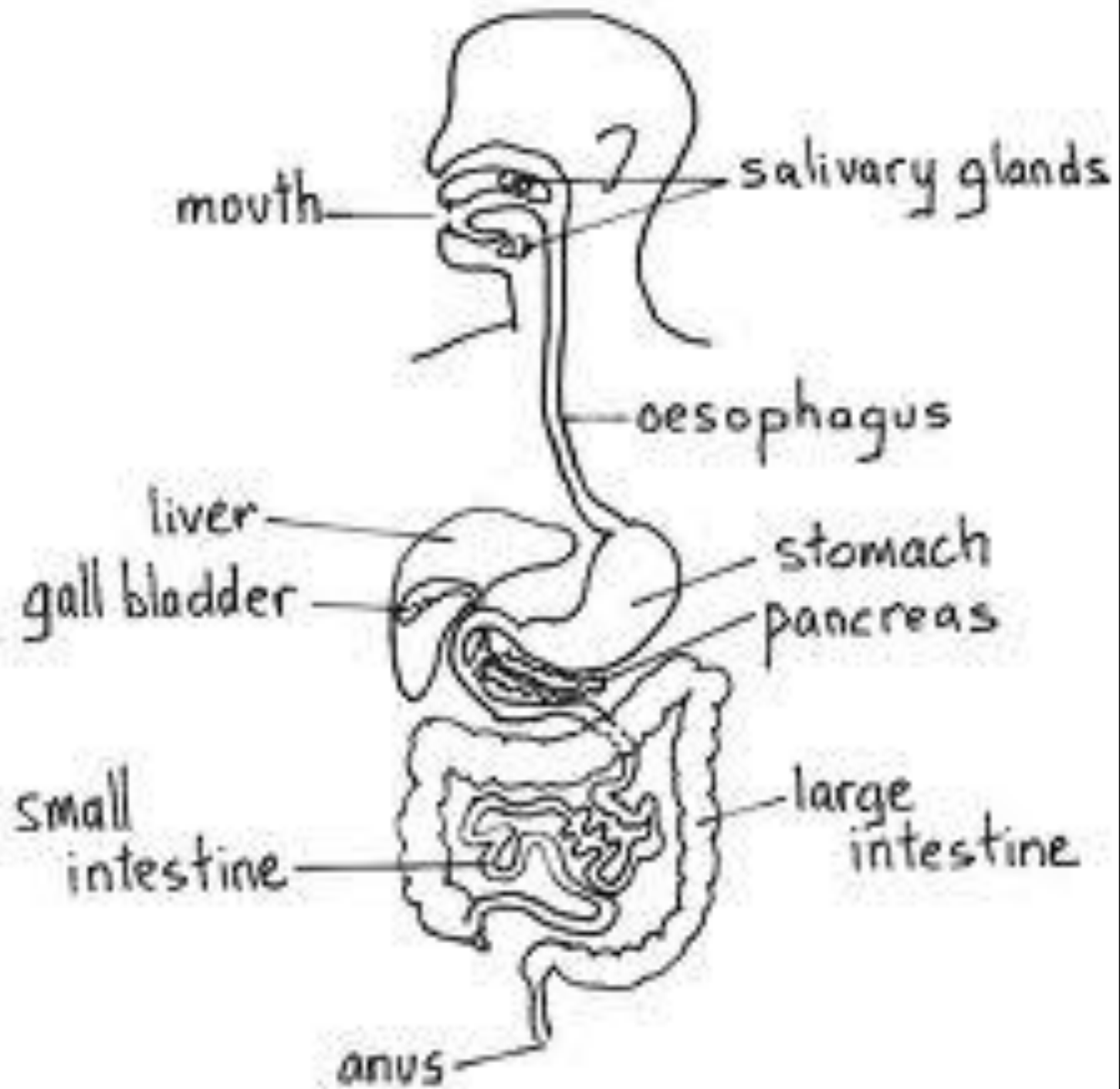
cecum
colon
rectum

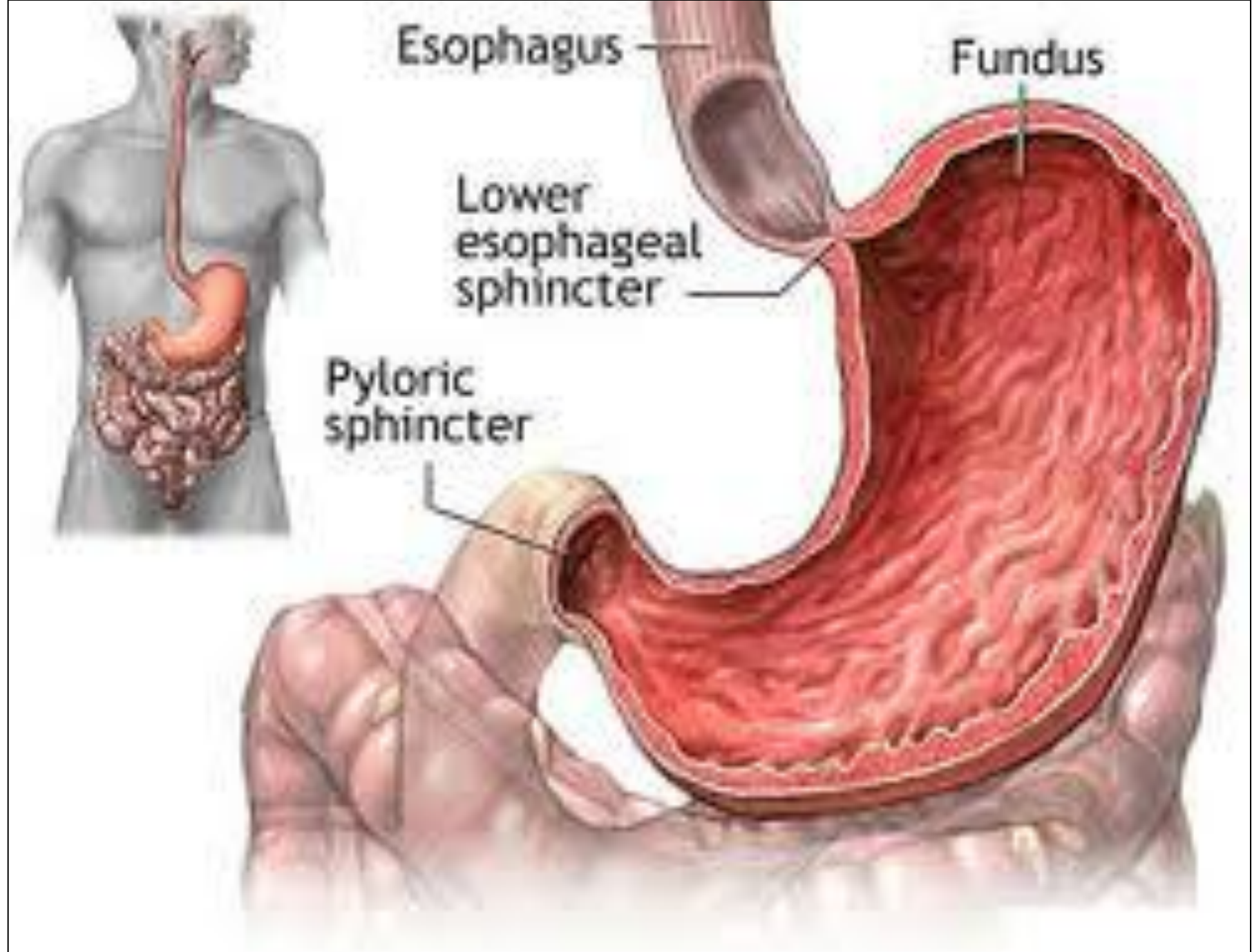


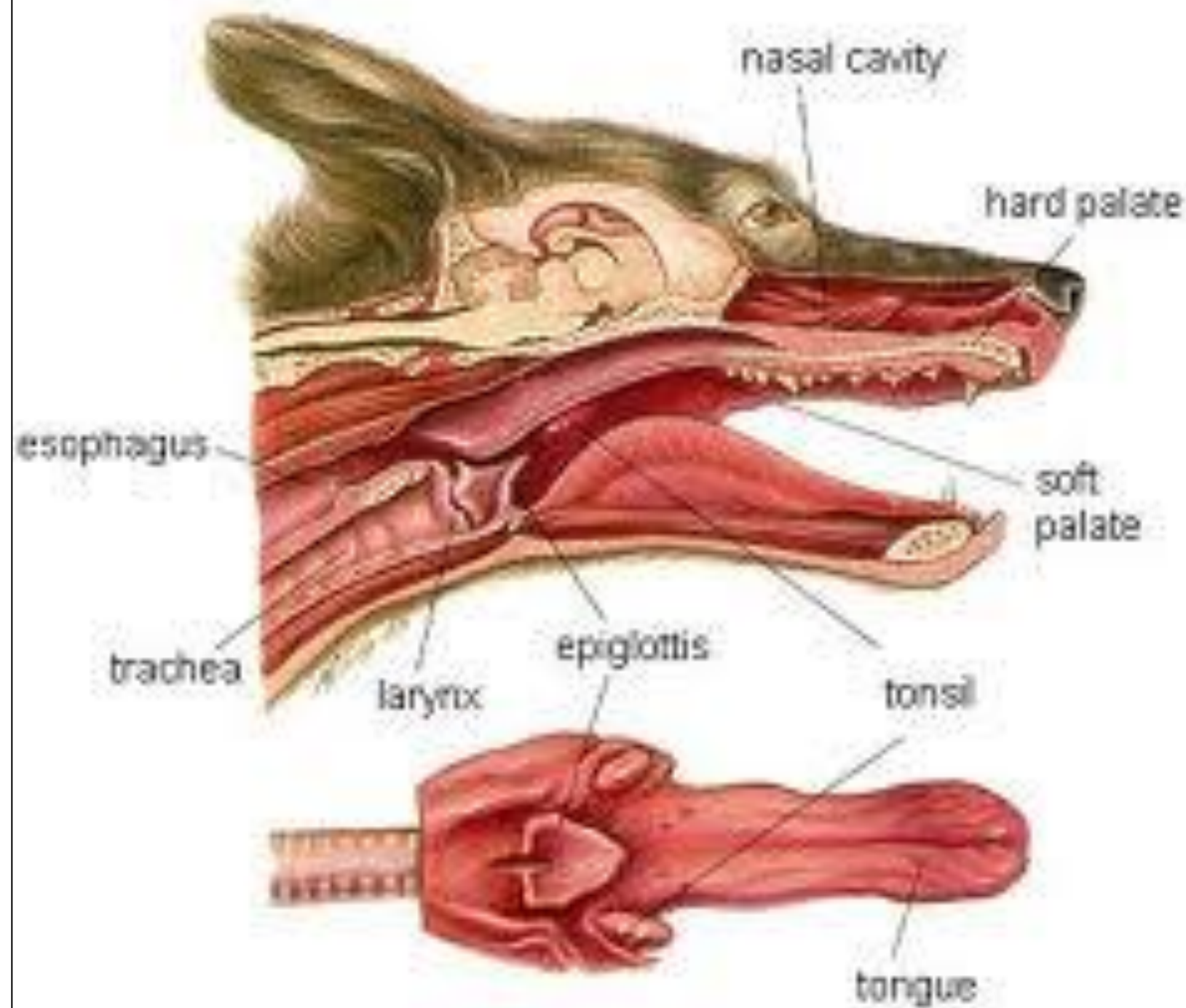


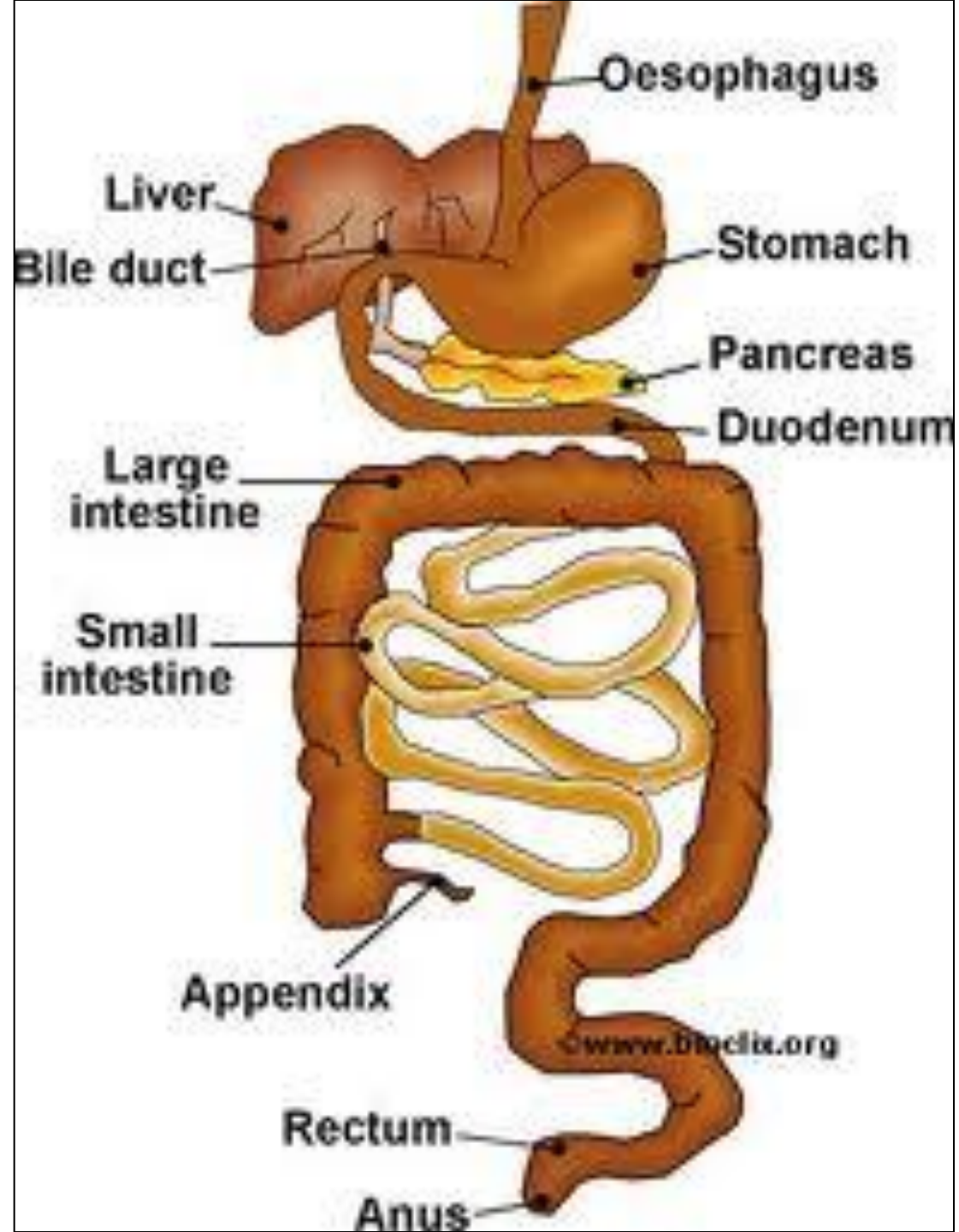


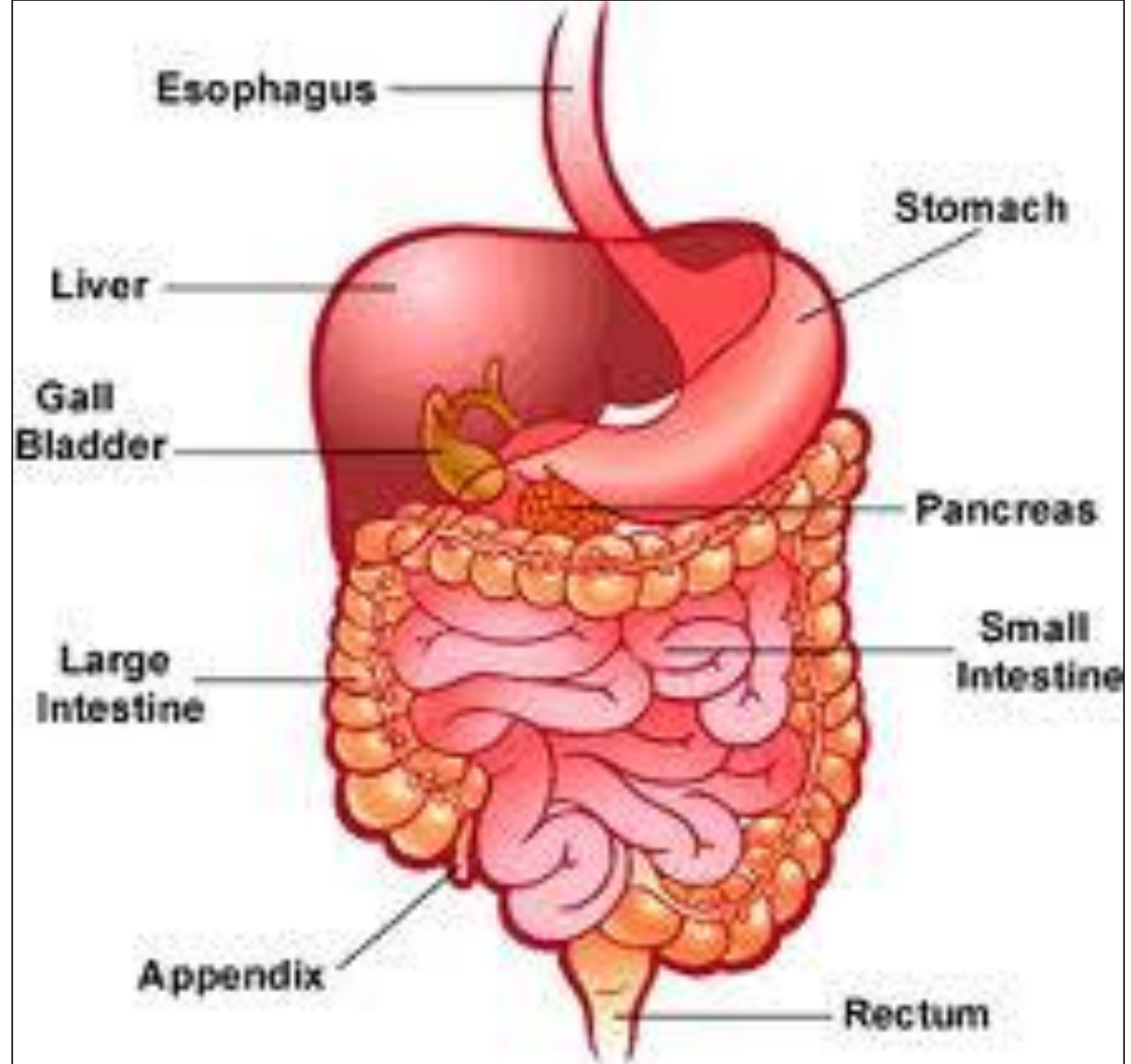


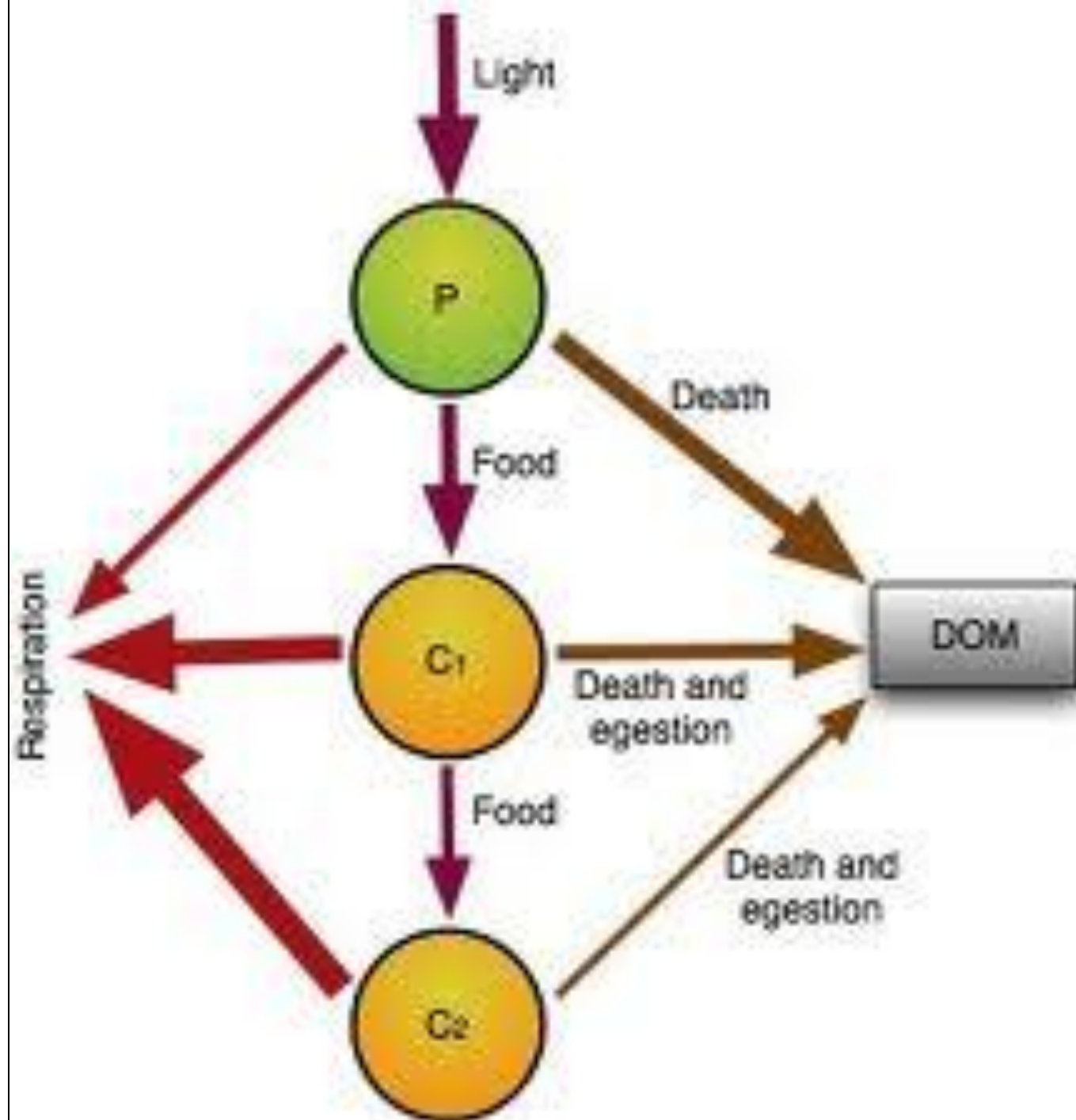




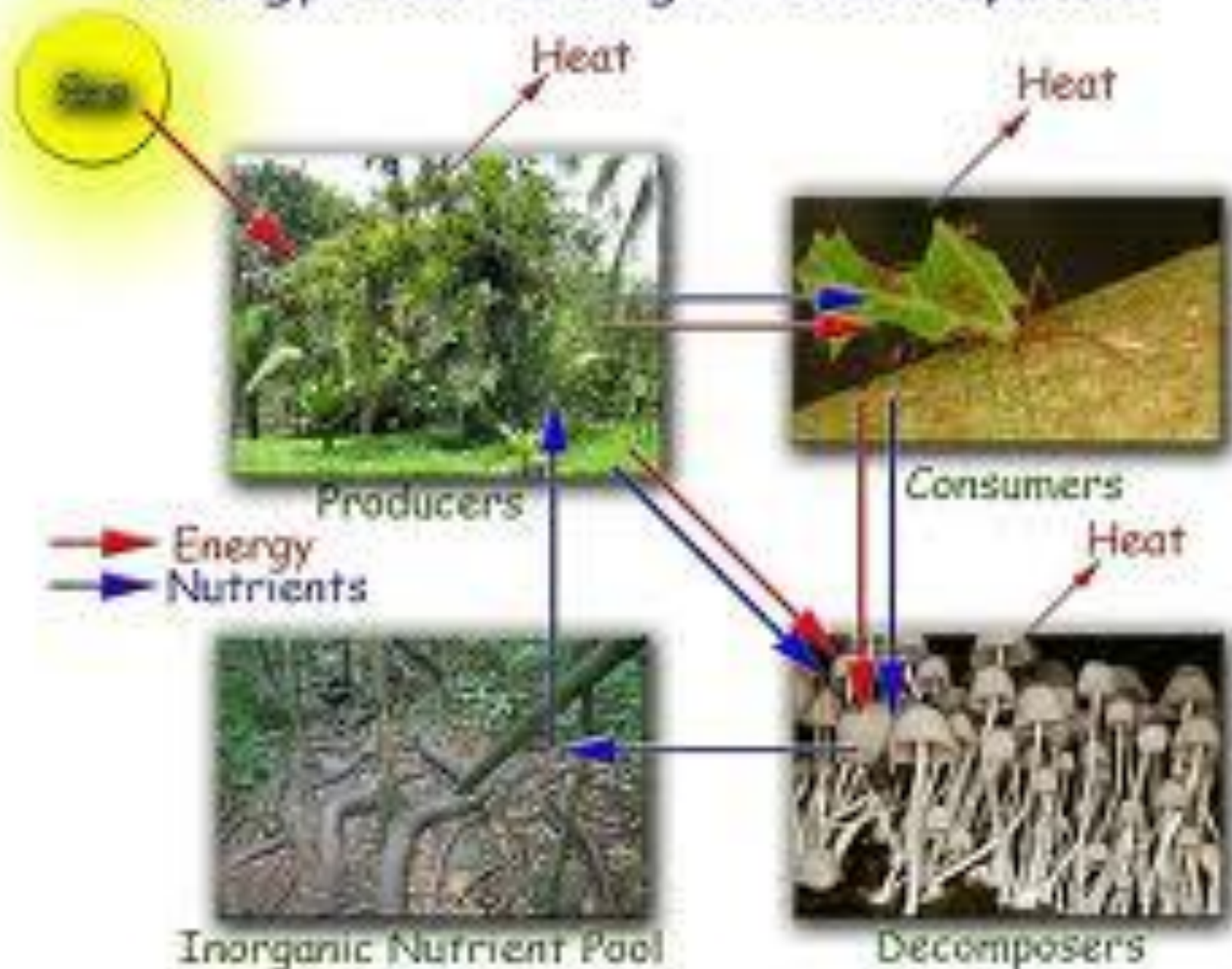


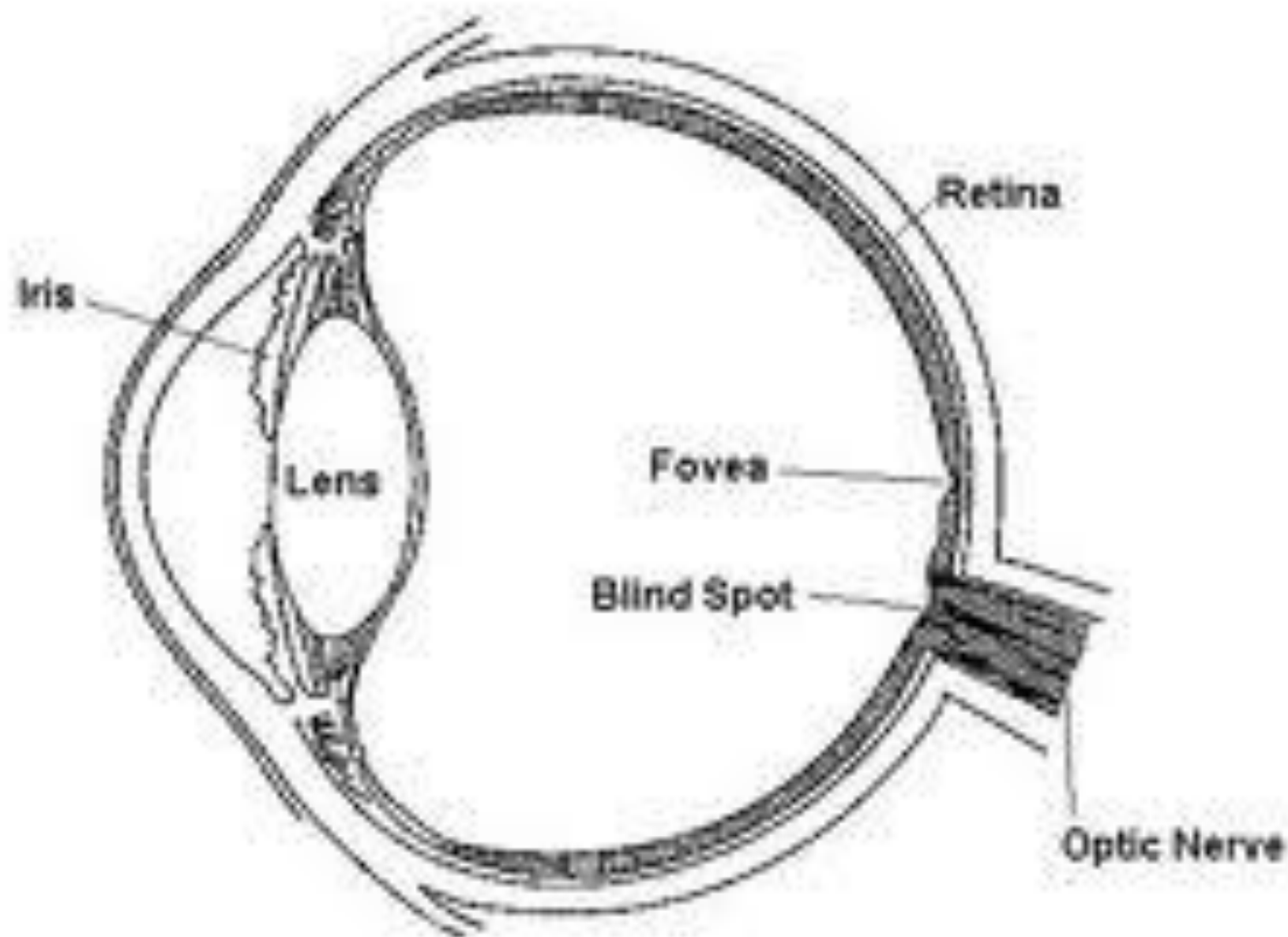




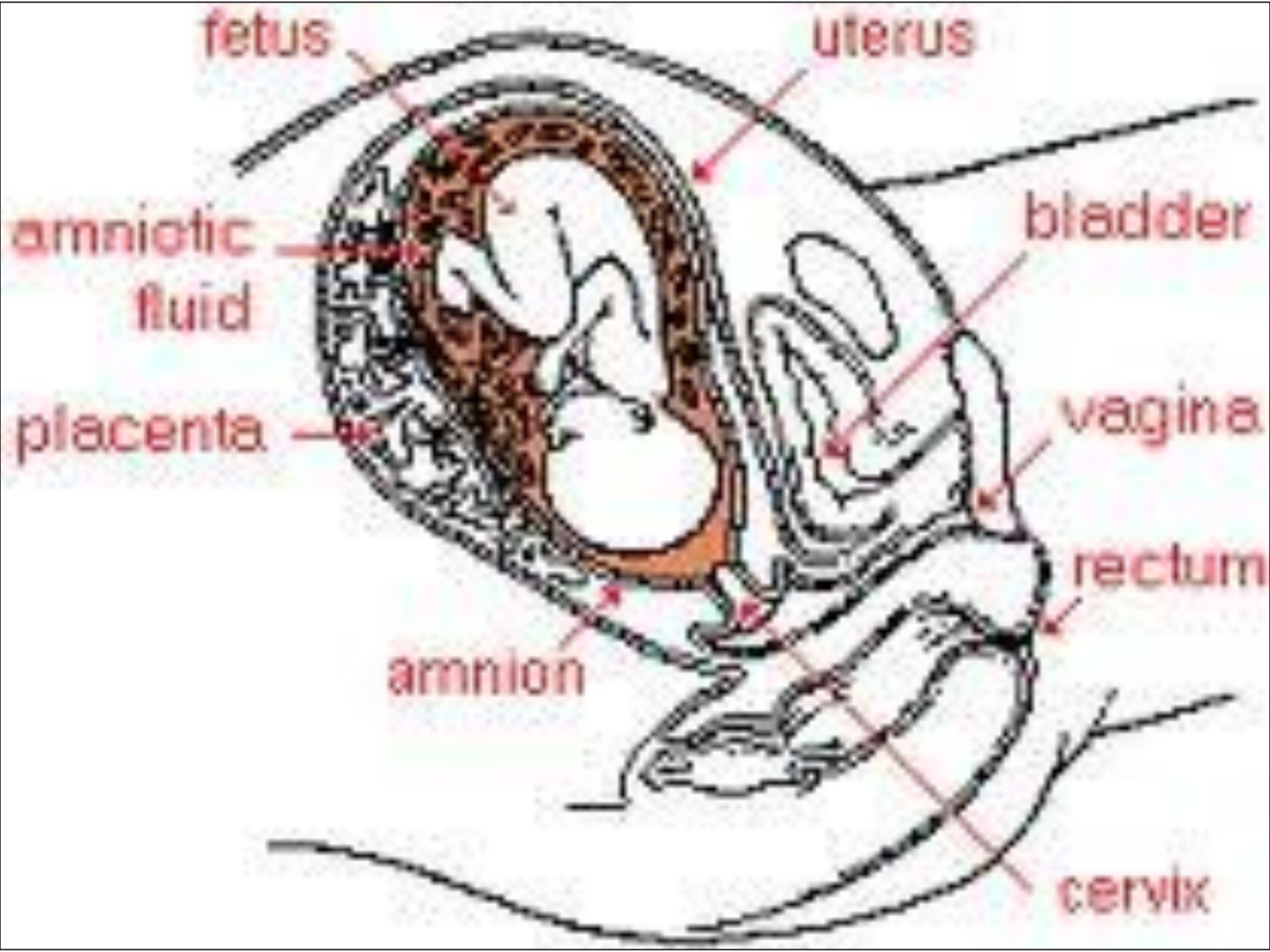


Energy Flow Through The Ecosystem

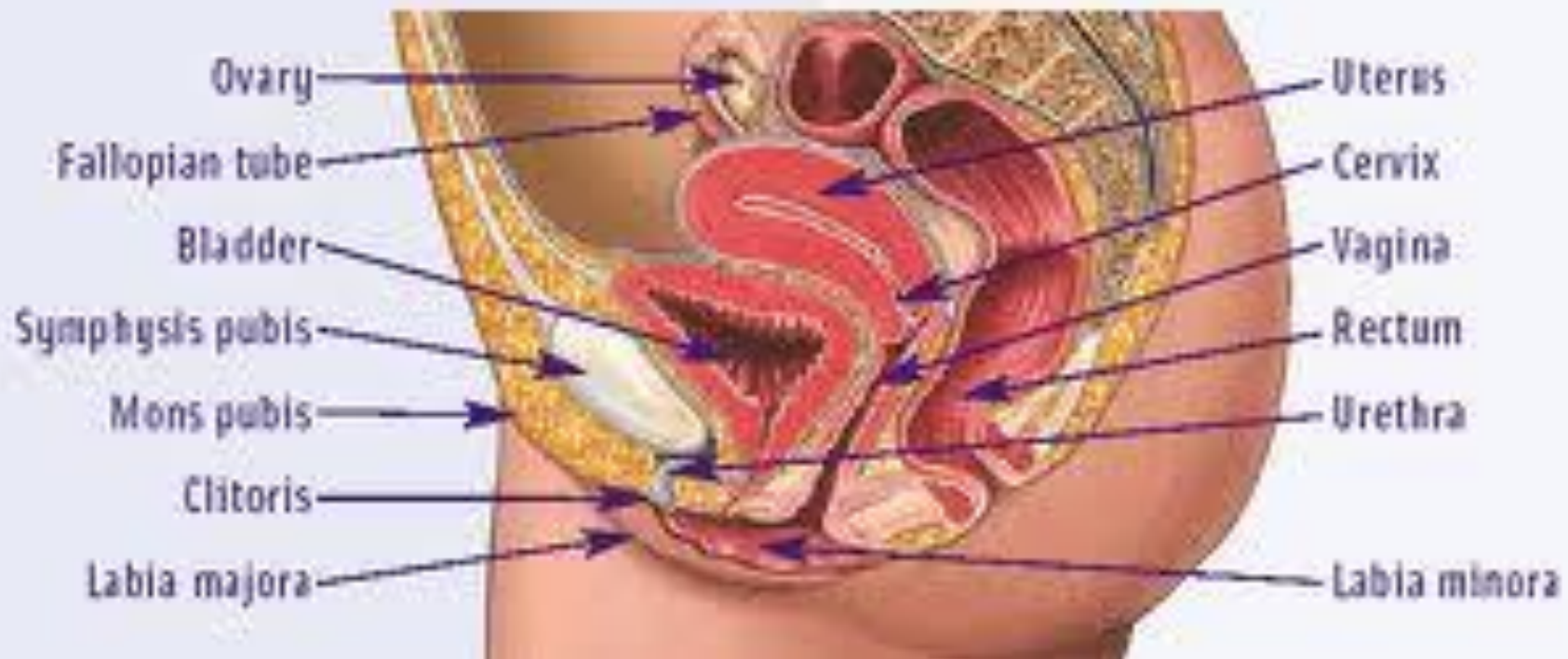


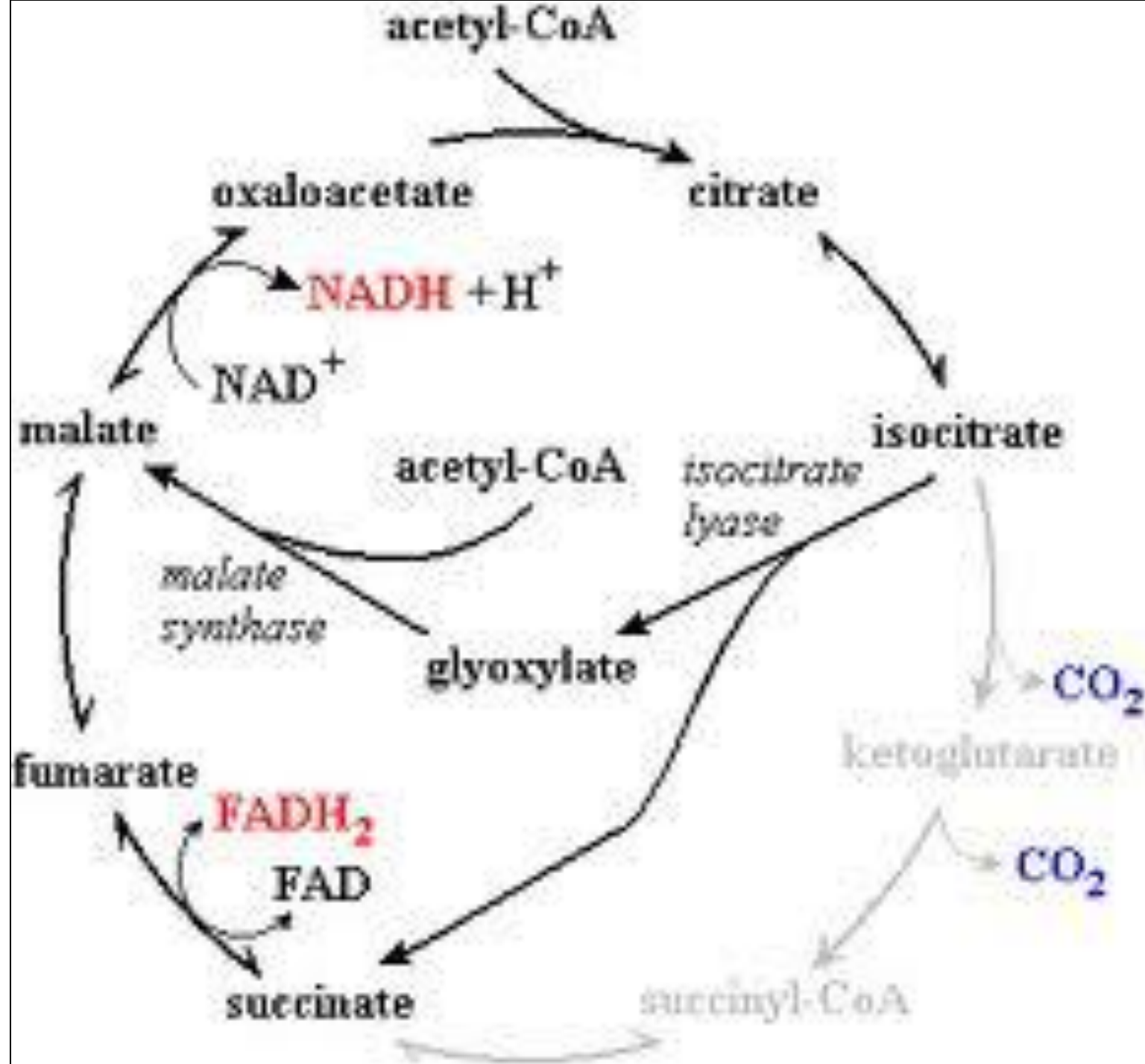


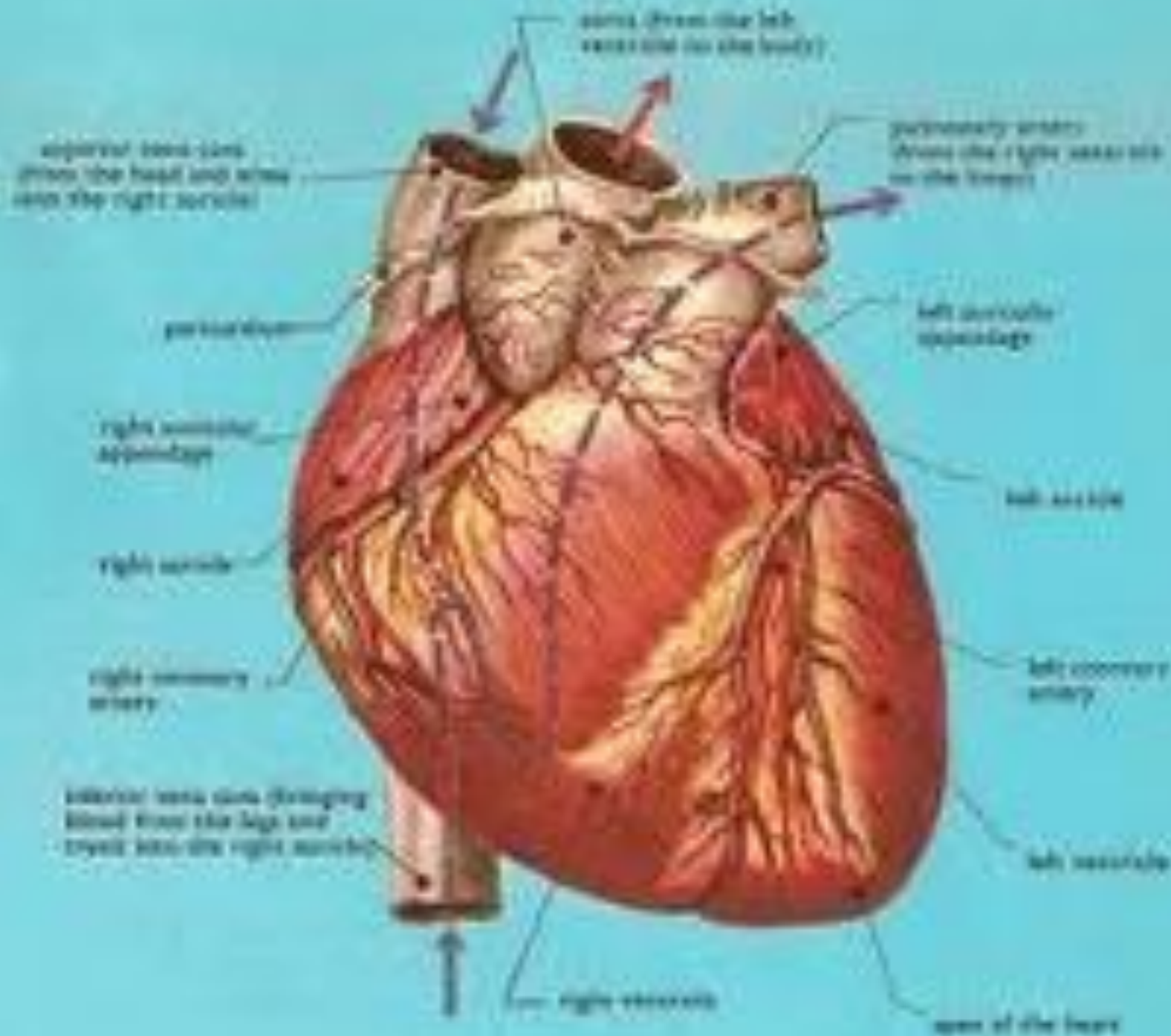
The Eye



The Female Reproductive System









duck



pheasant



pigeon



goose



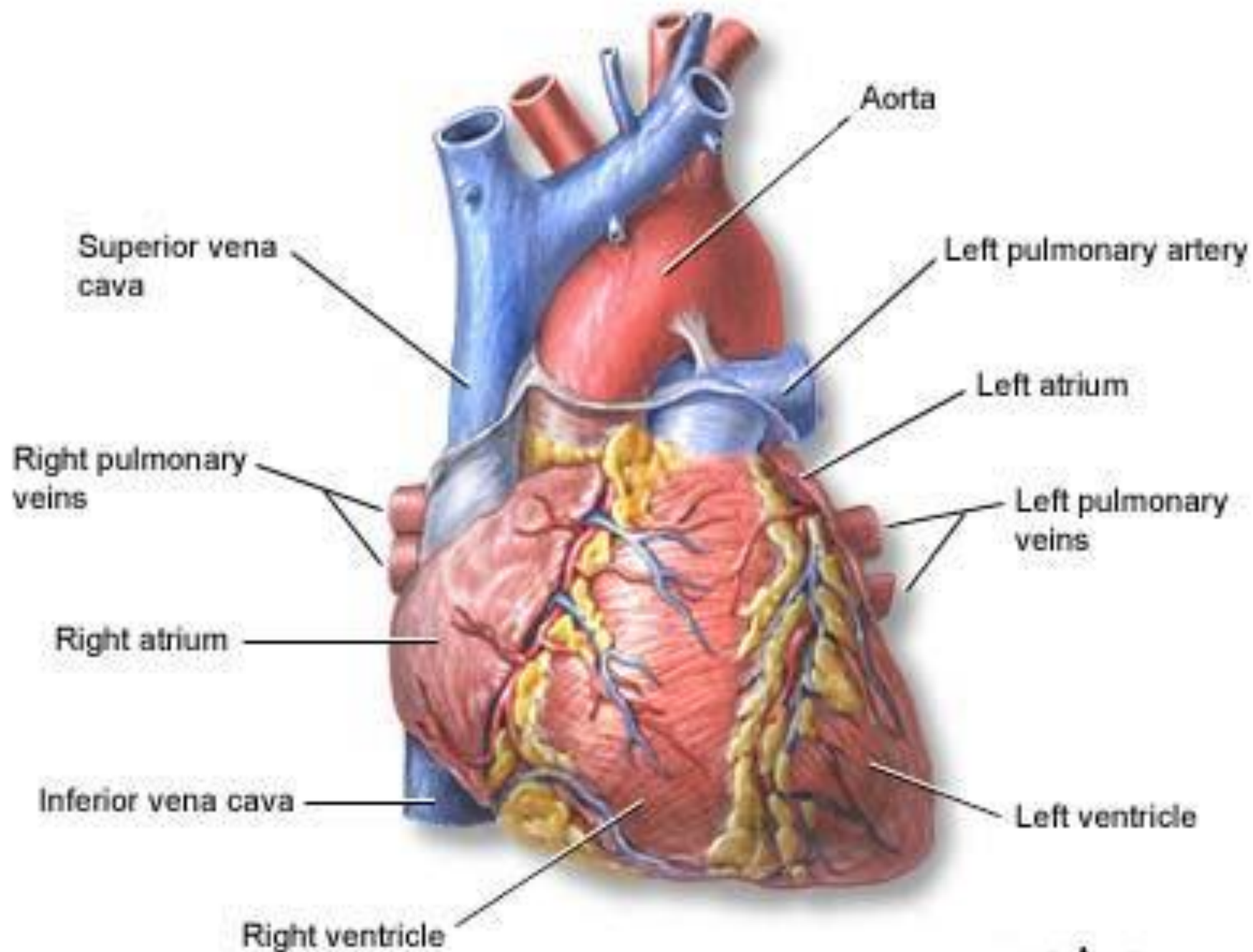
guinea fowl



turkey

www.visualdictionaryonline.com





Inside the Heart

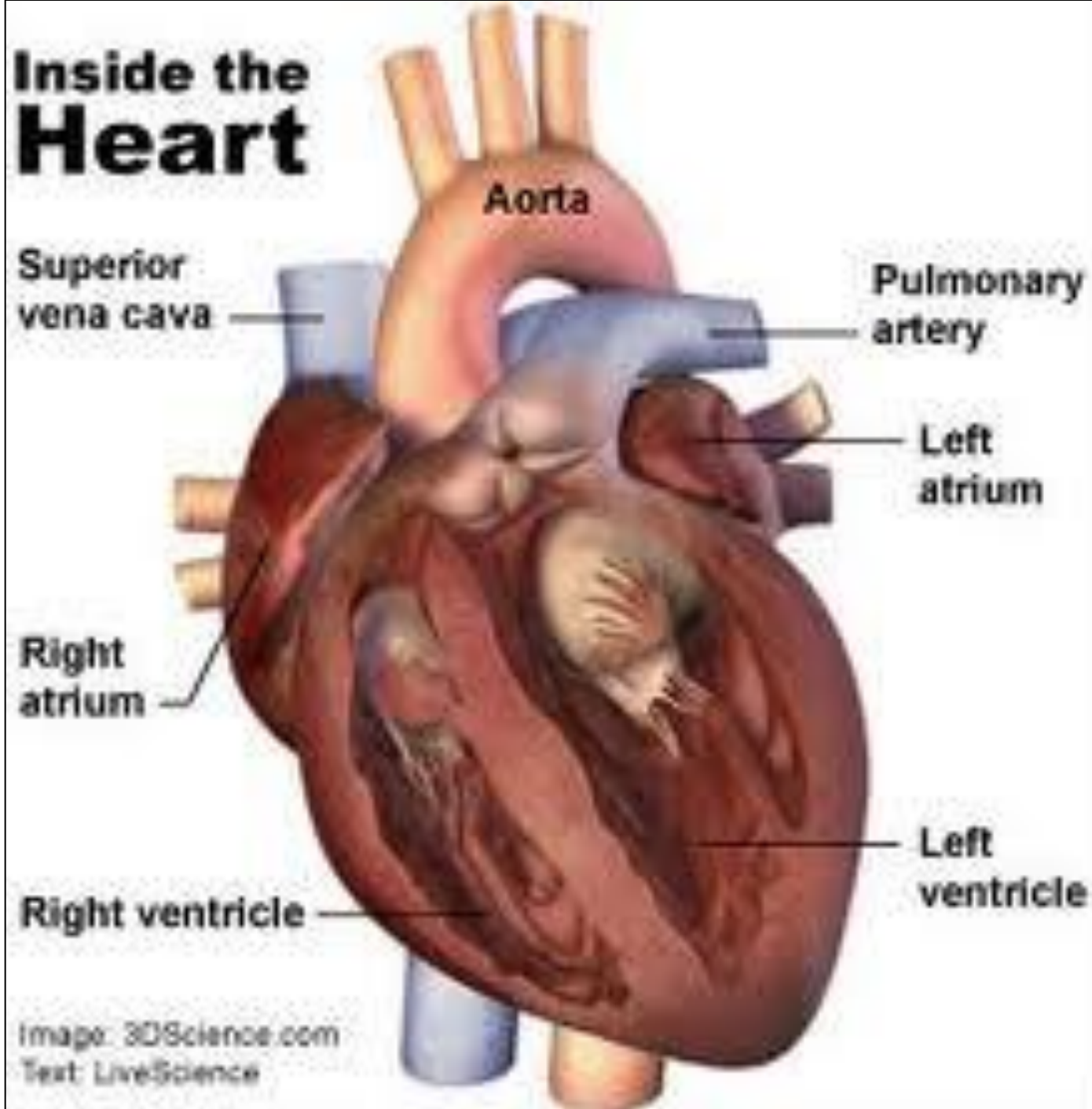
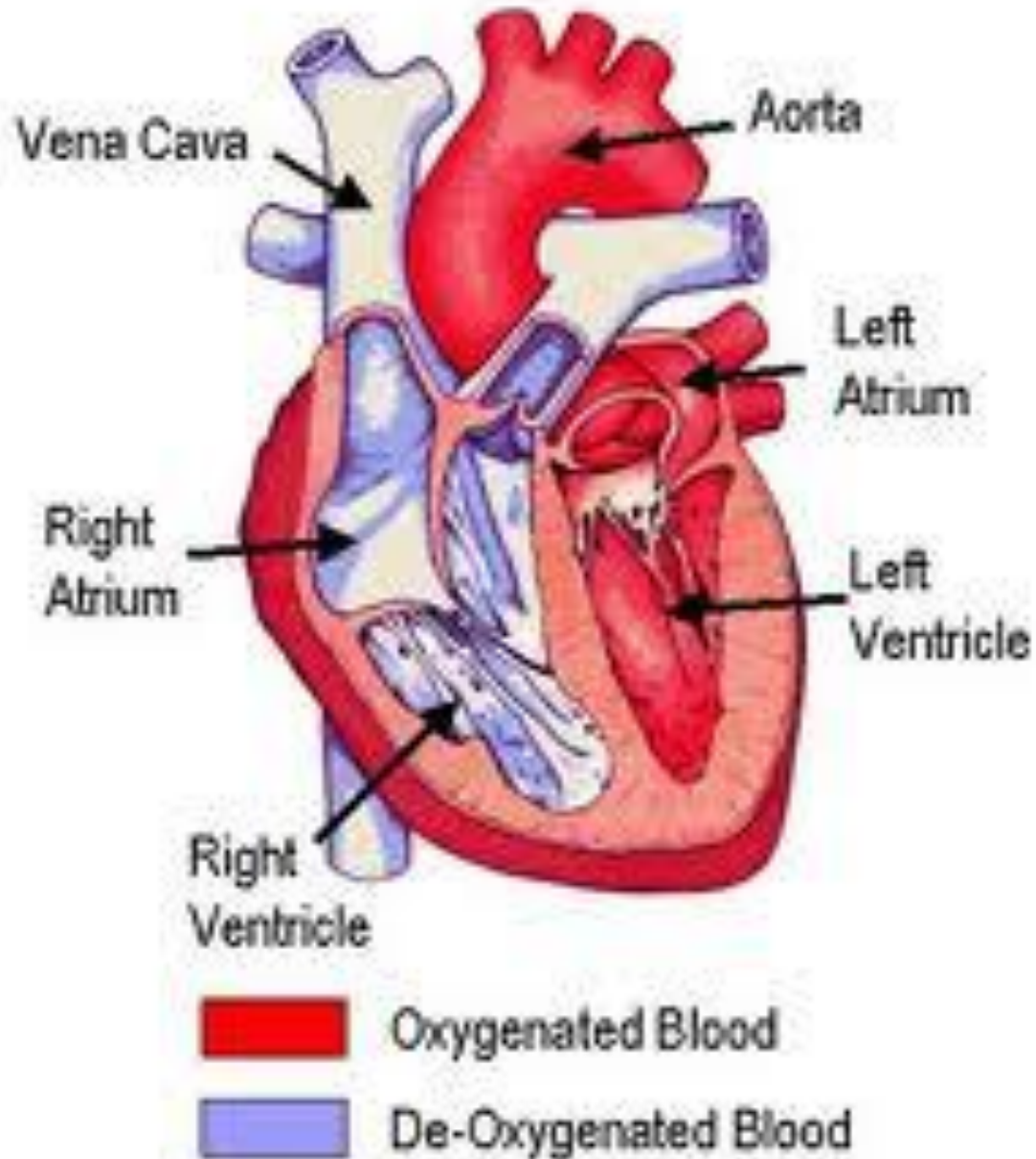


Image: 3DScience.com
Text: LiveScience

The Human Heart

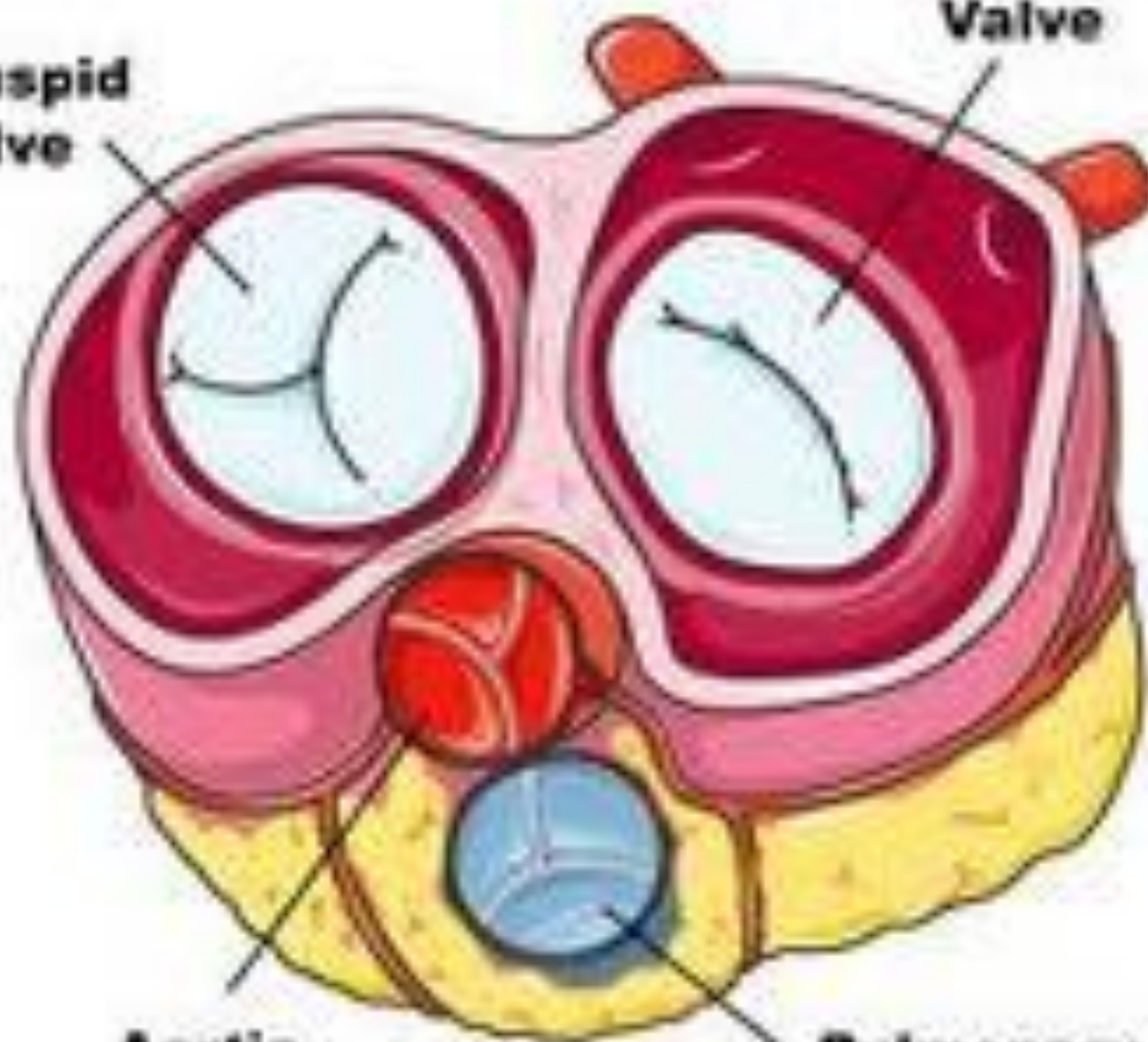


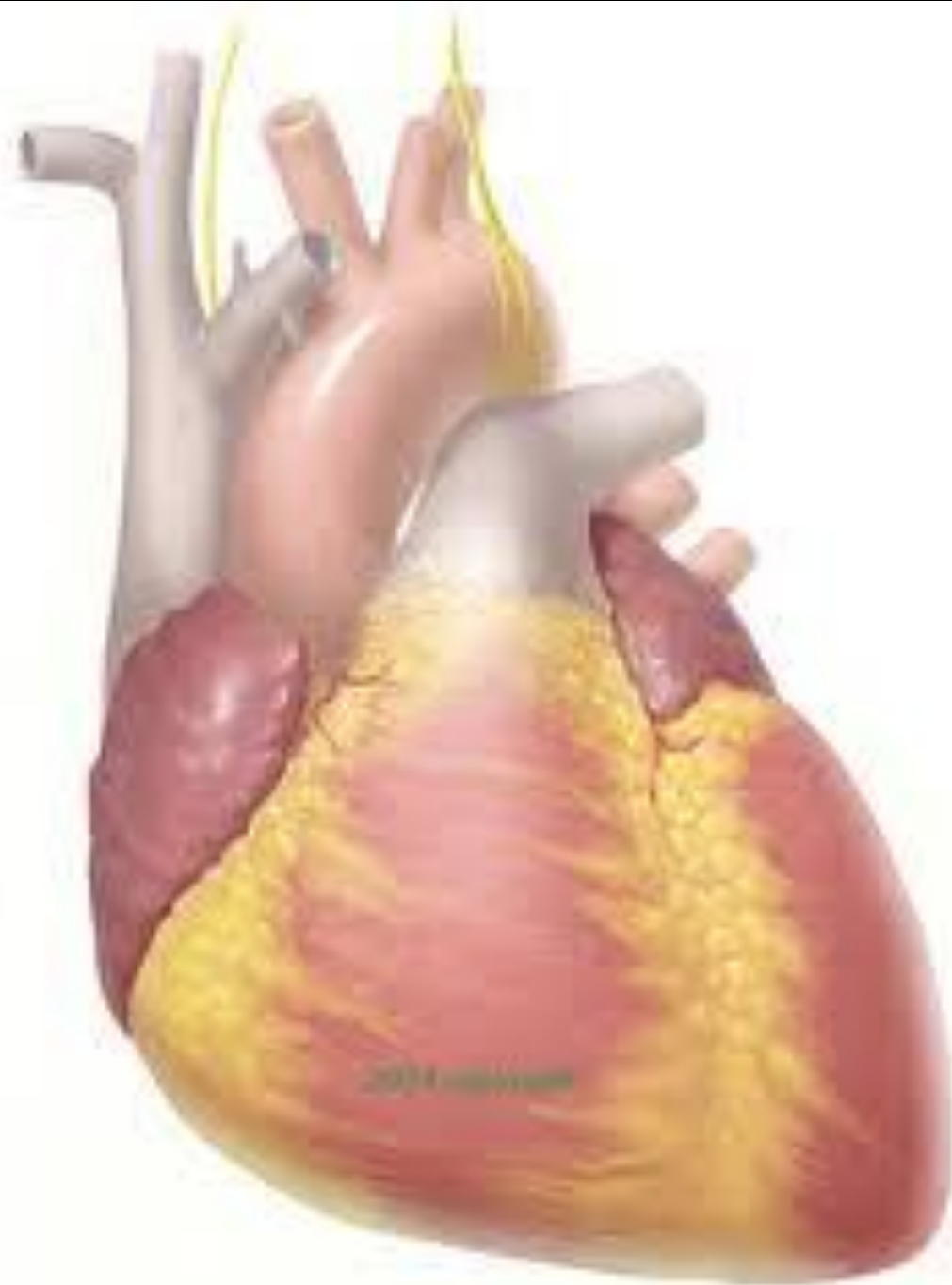
**Tricuspid
Valve**

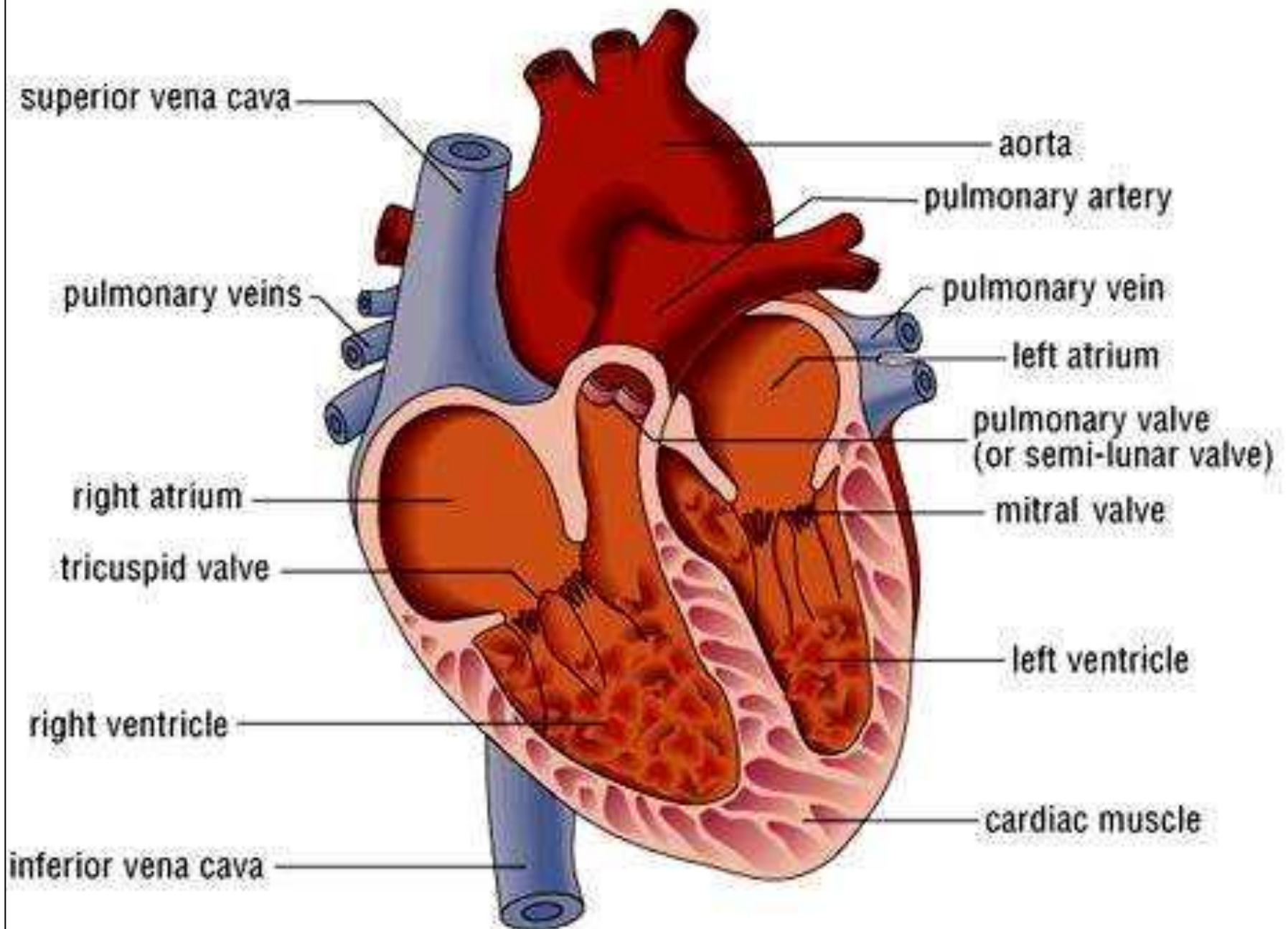
**Mitral
Valve**

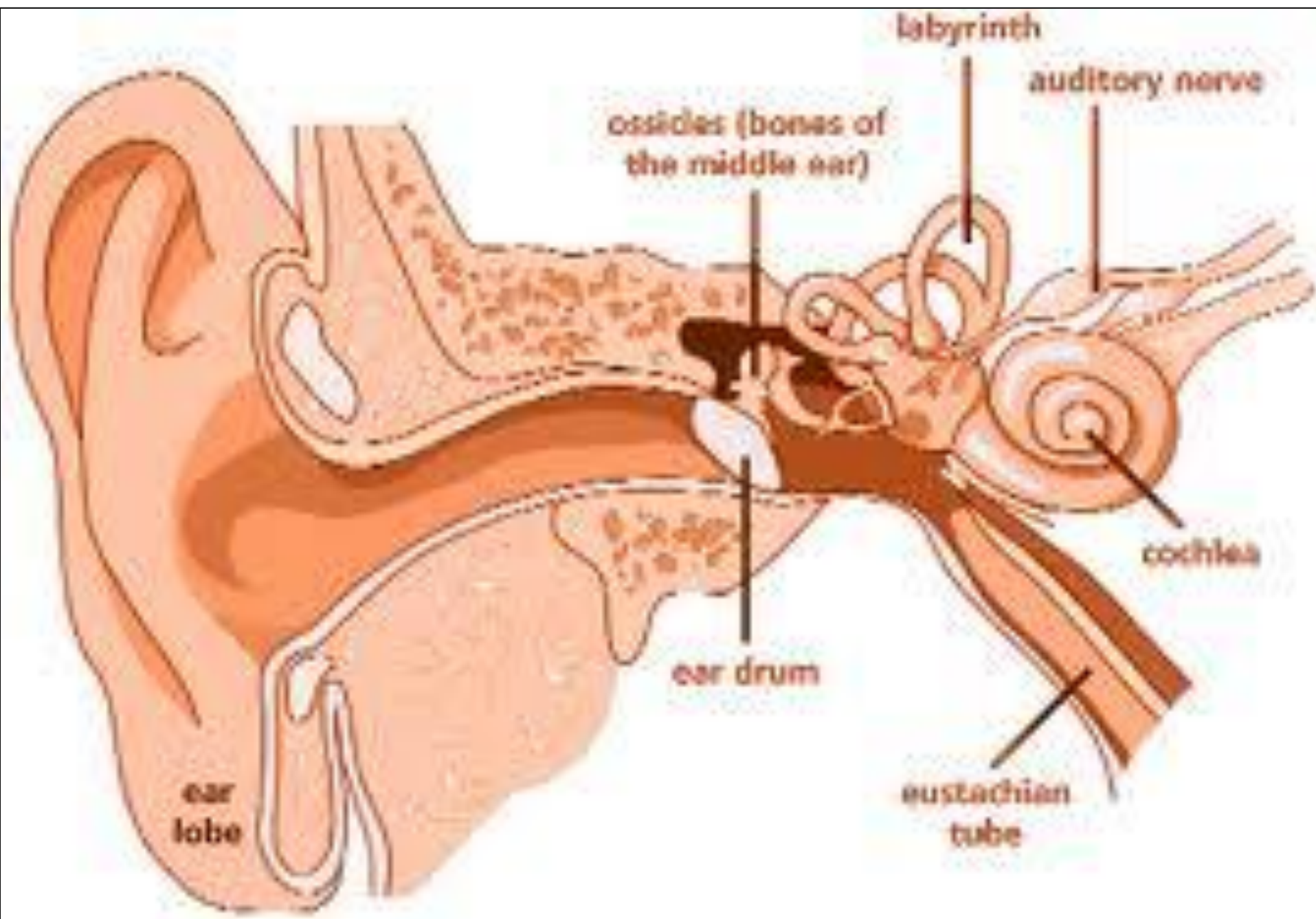
**Aortic
Valve**

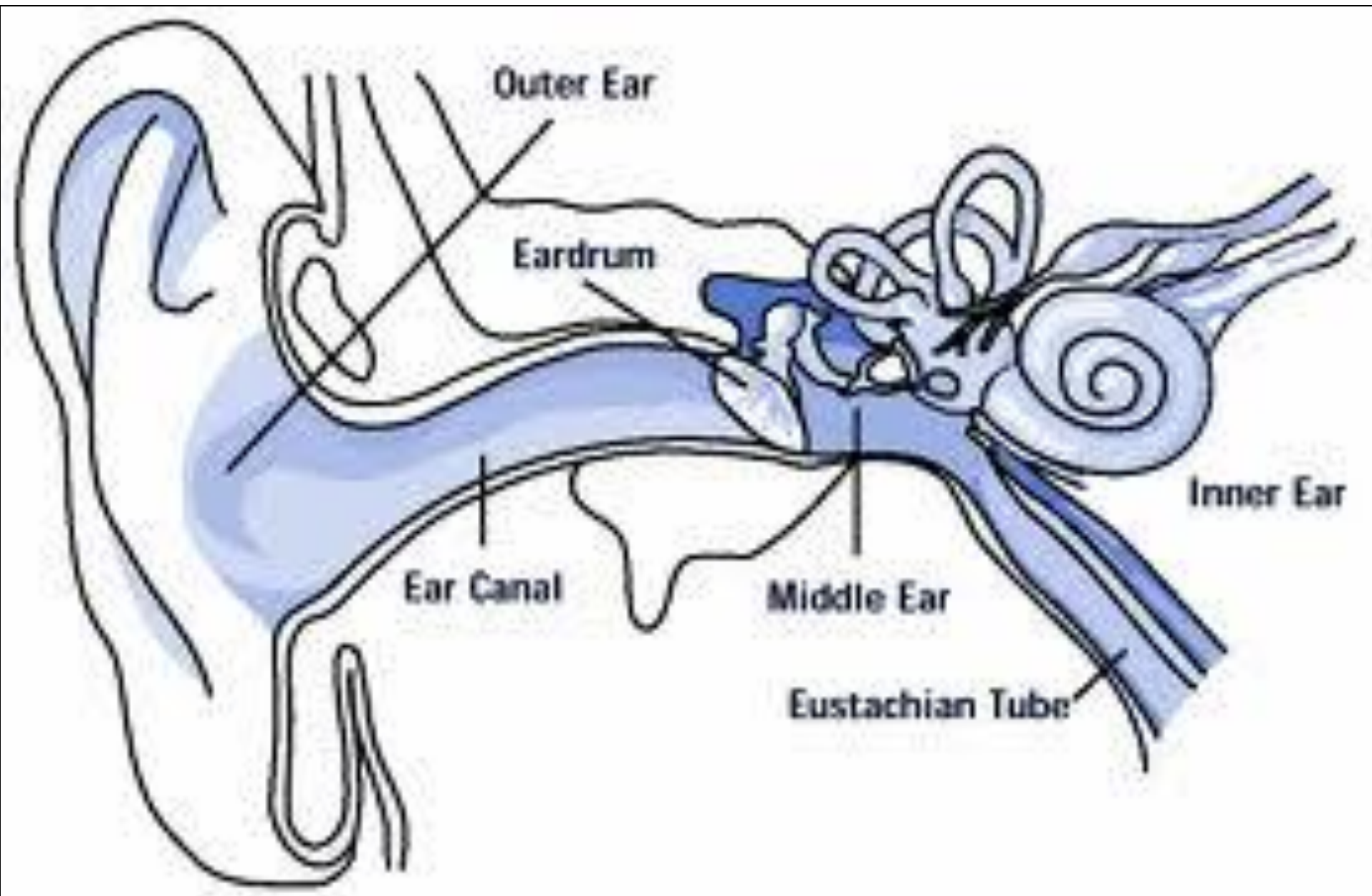
**Pulmonary
Valve**

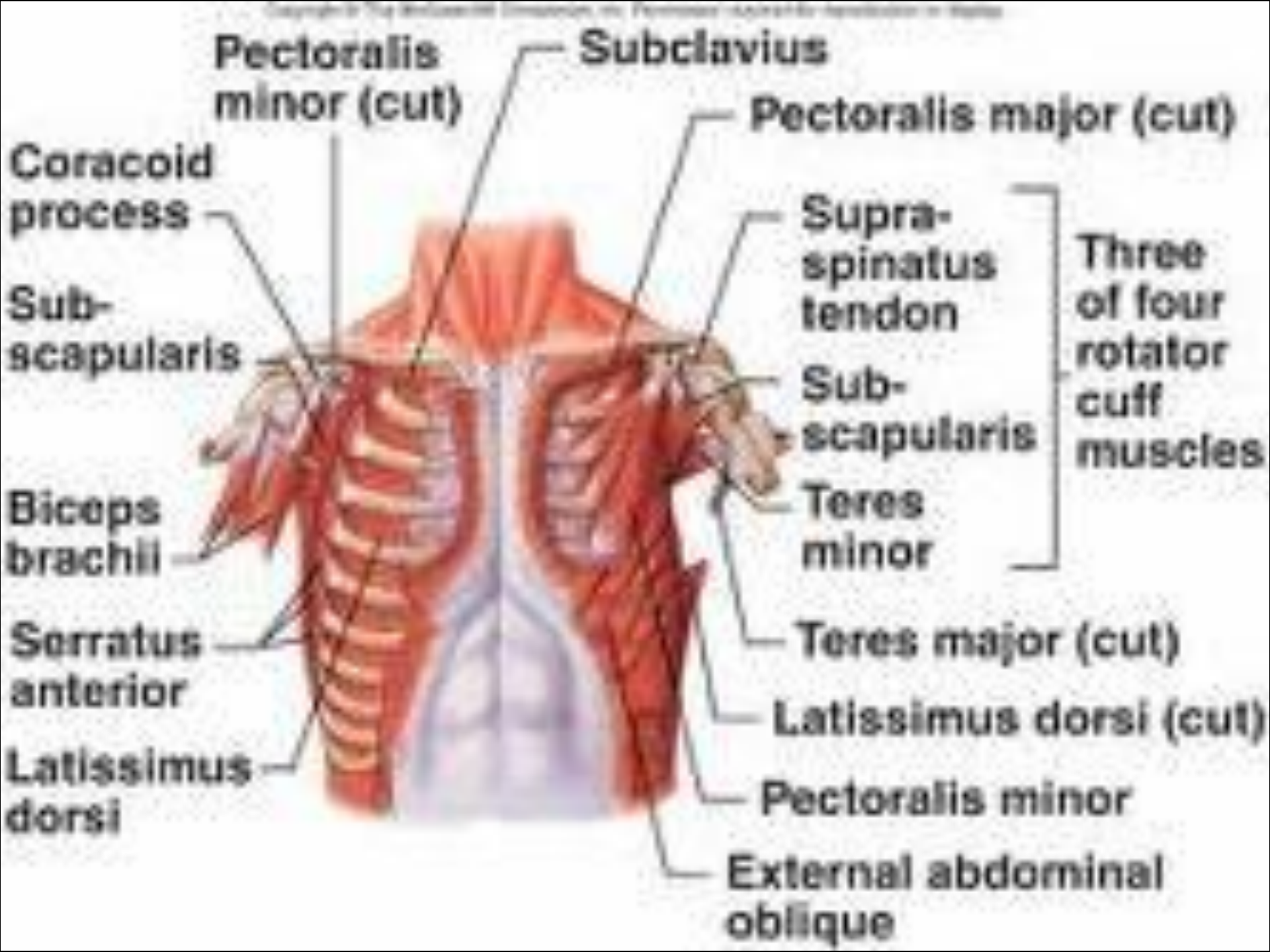


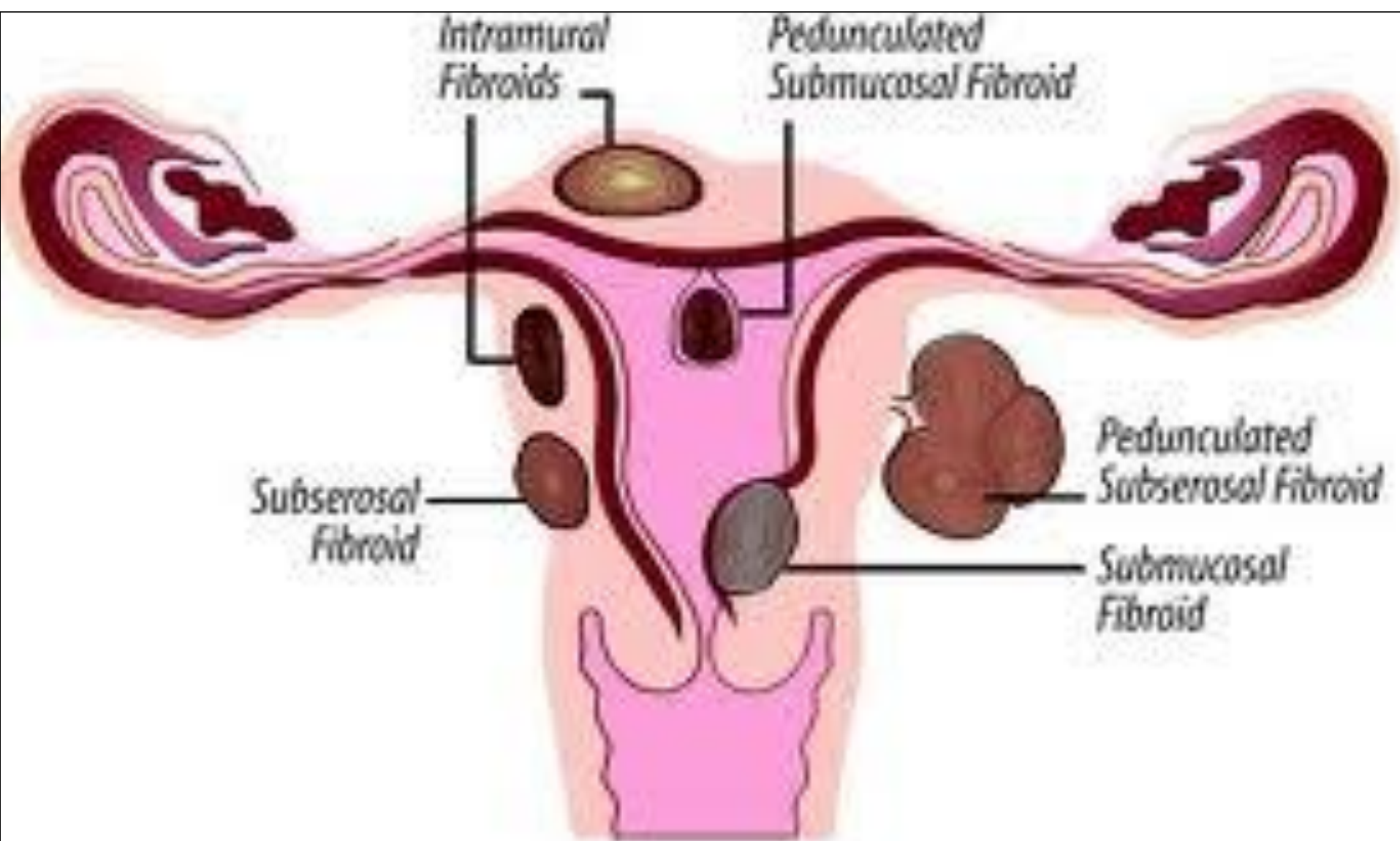




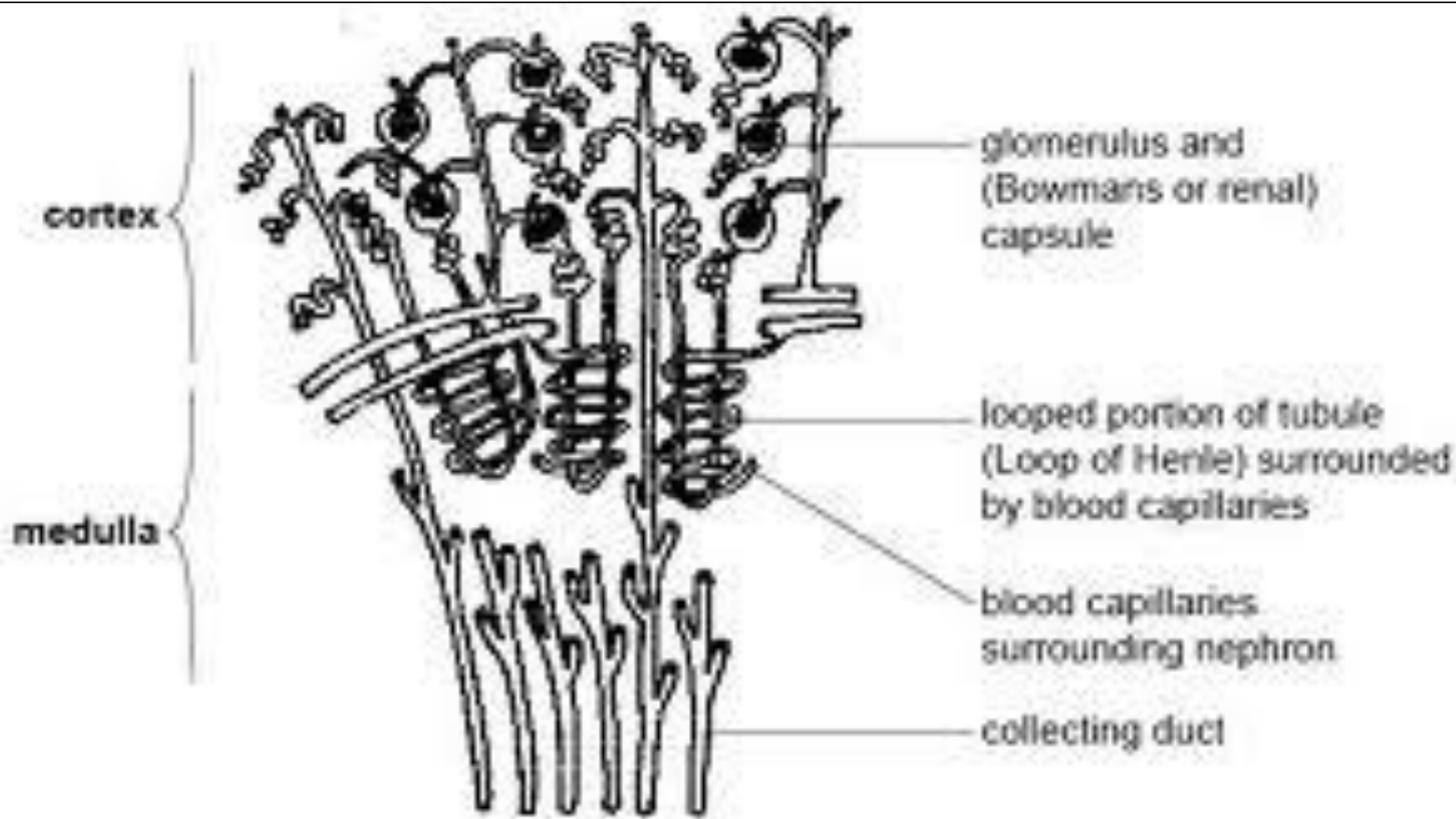


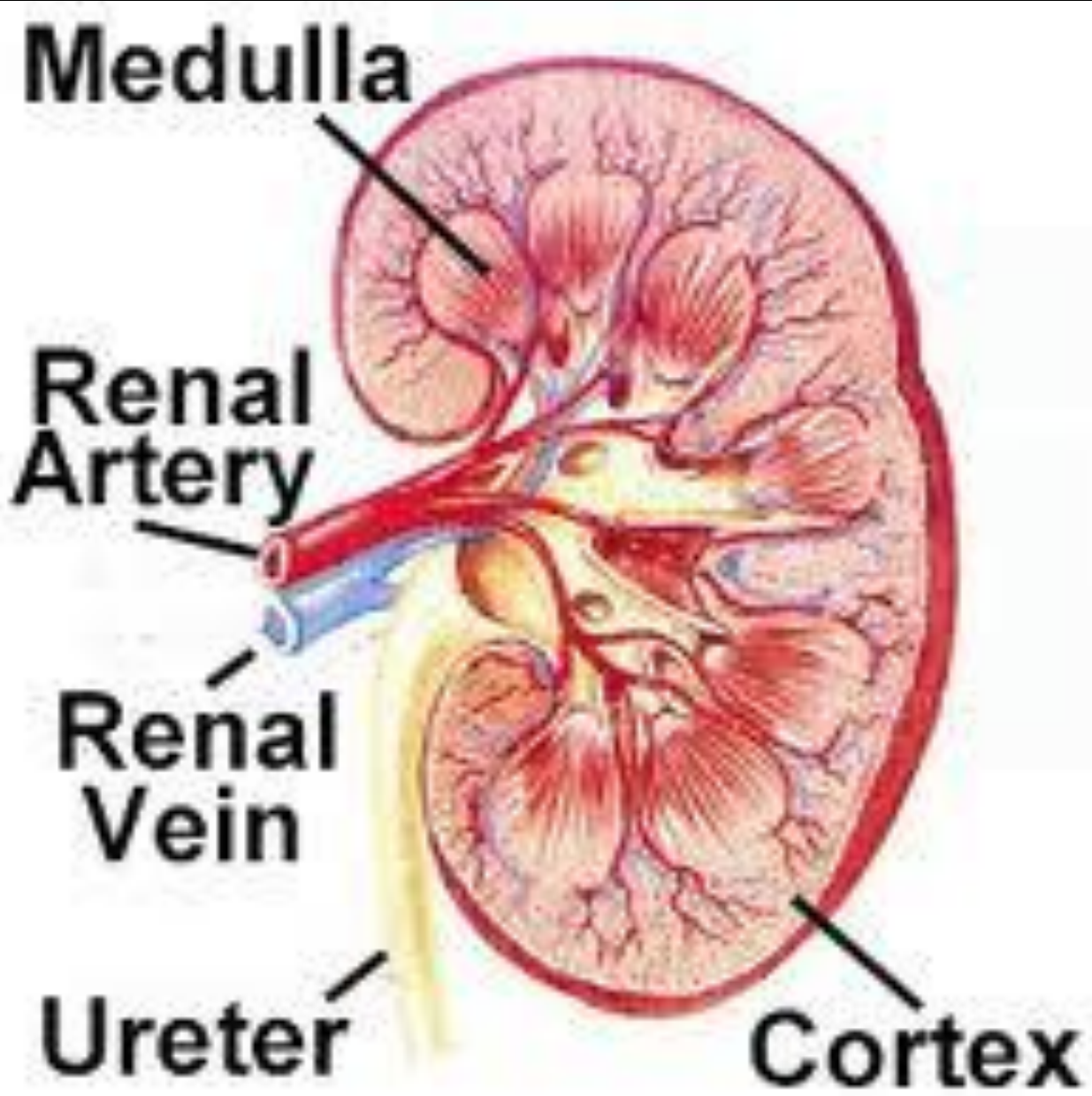


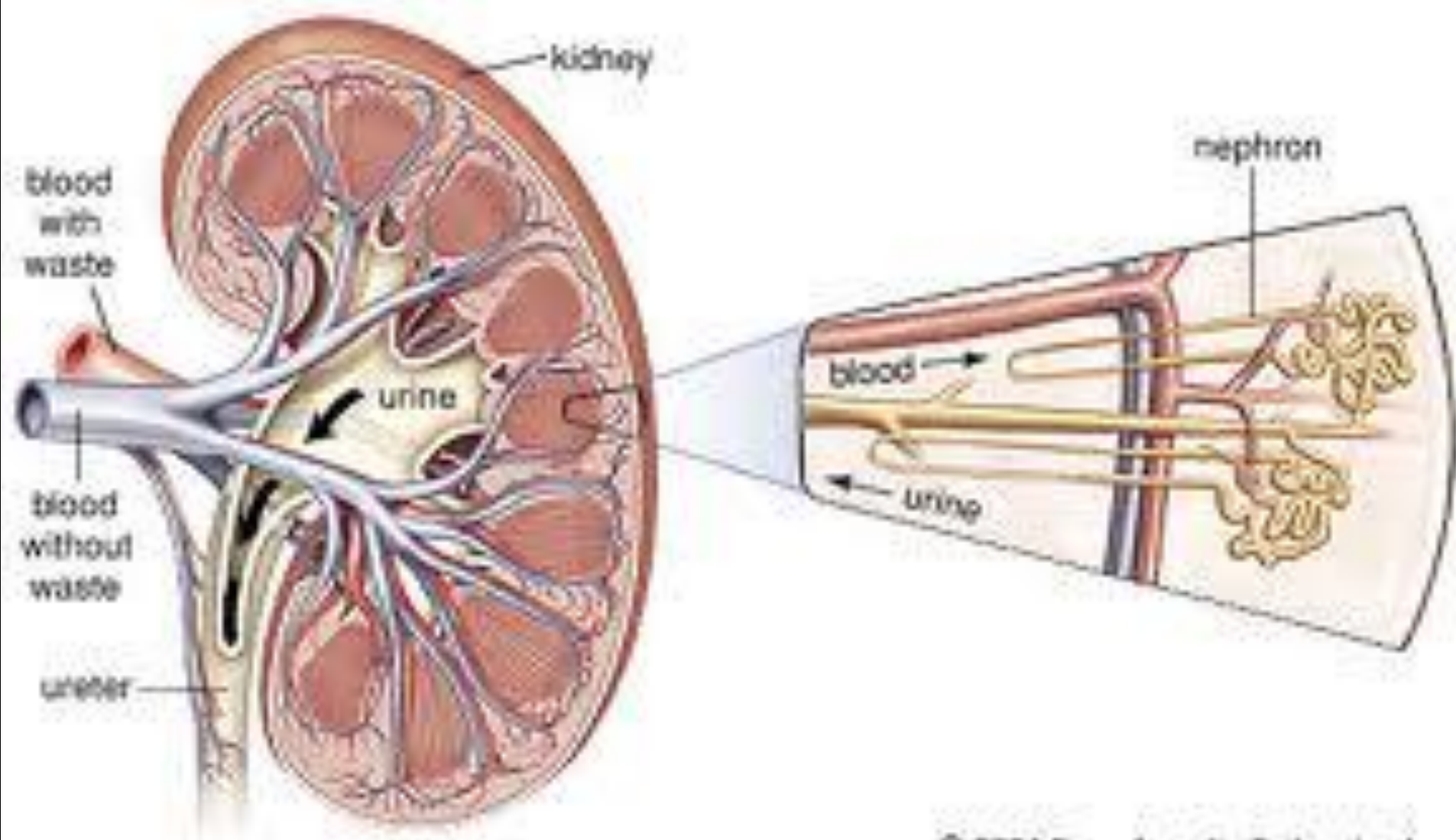




Fibroid Uterus



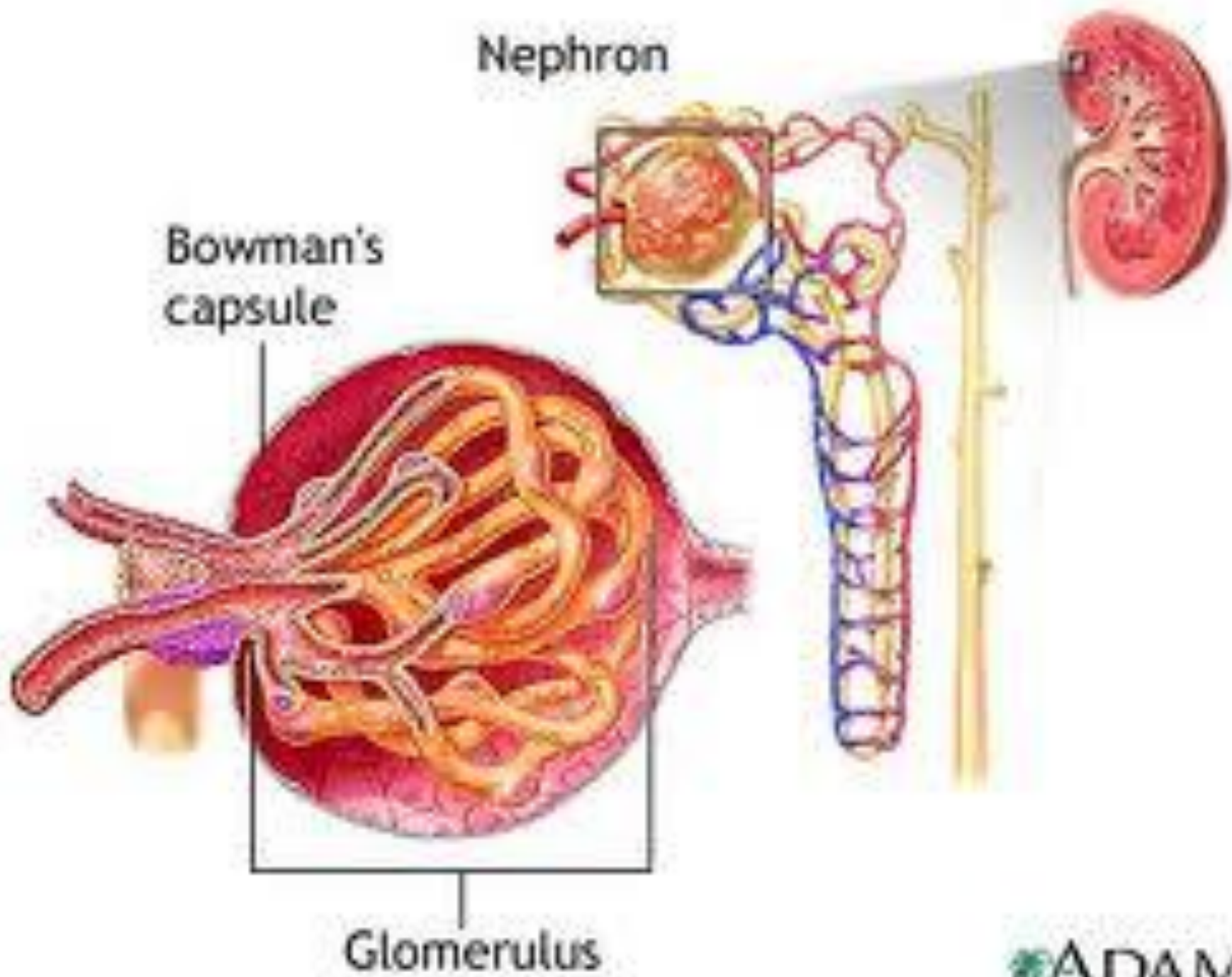




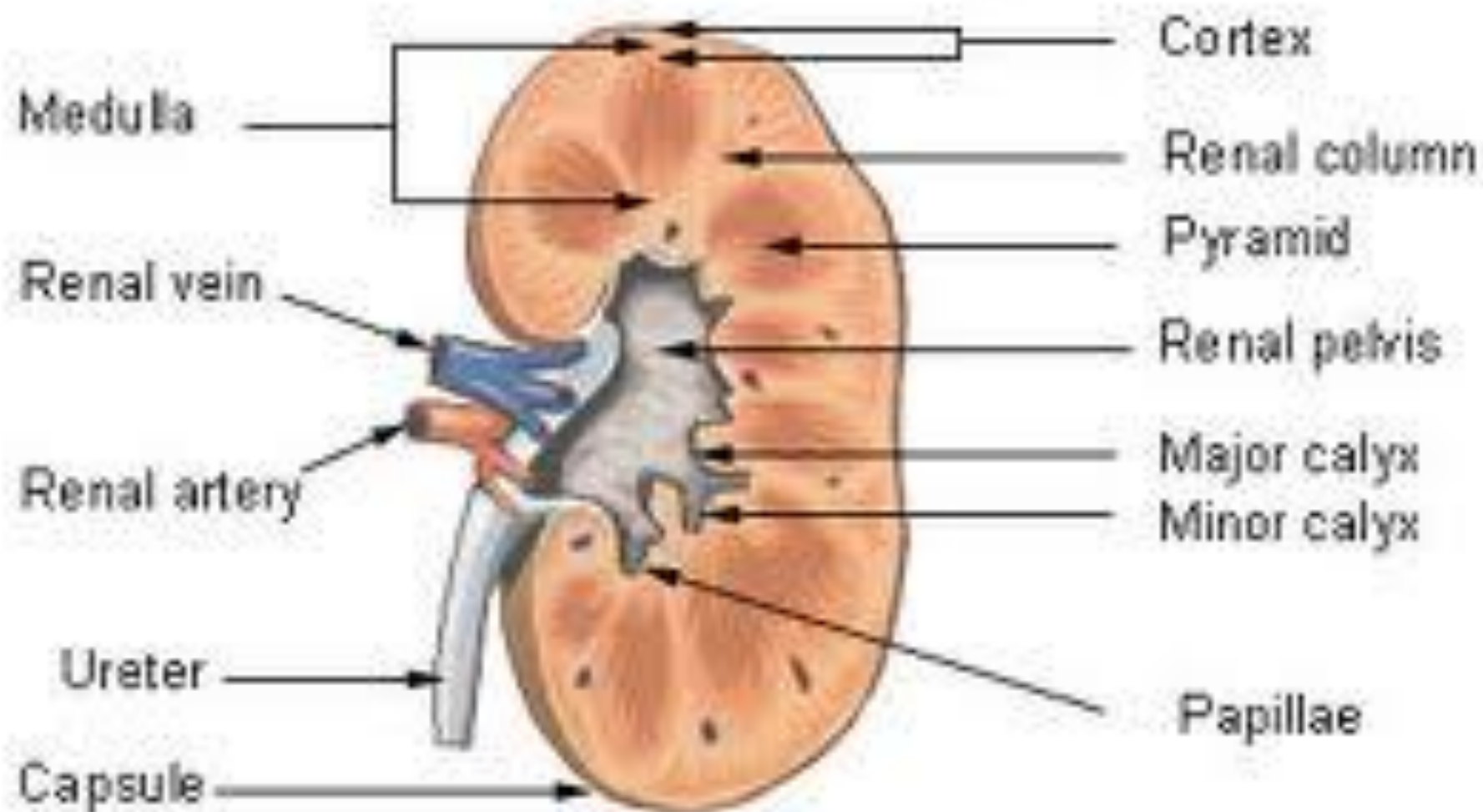
Nephron

Bowman's capsule

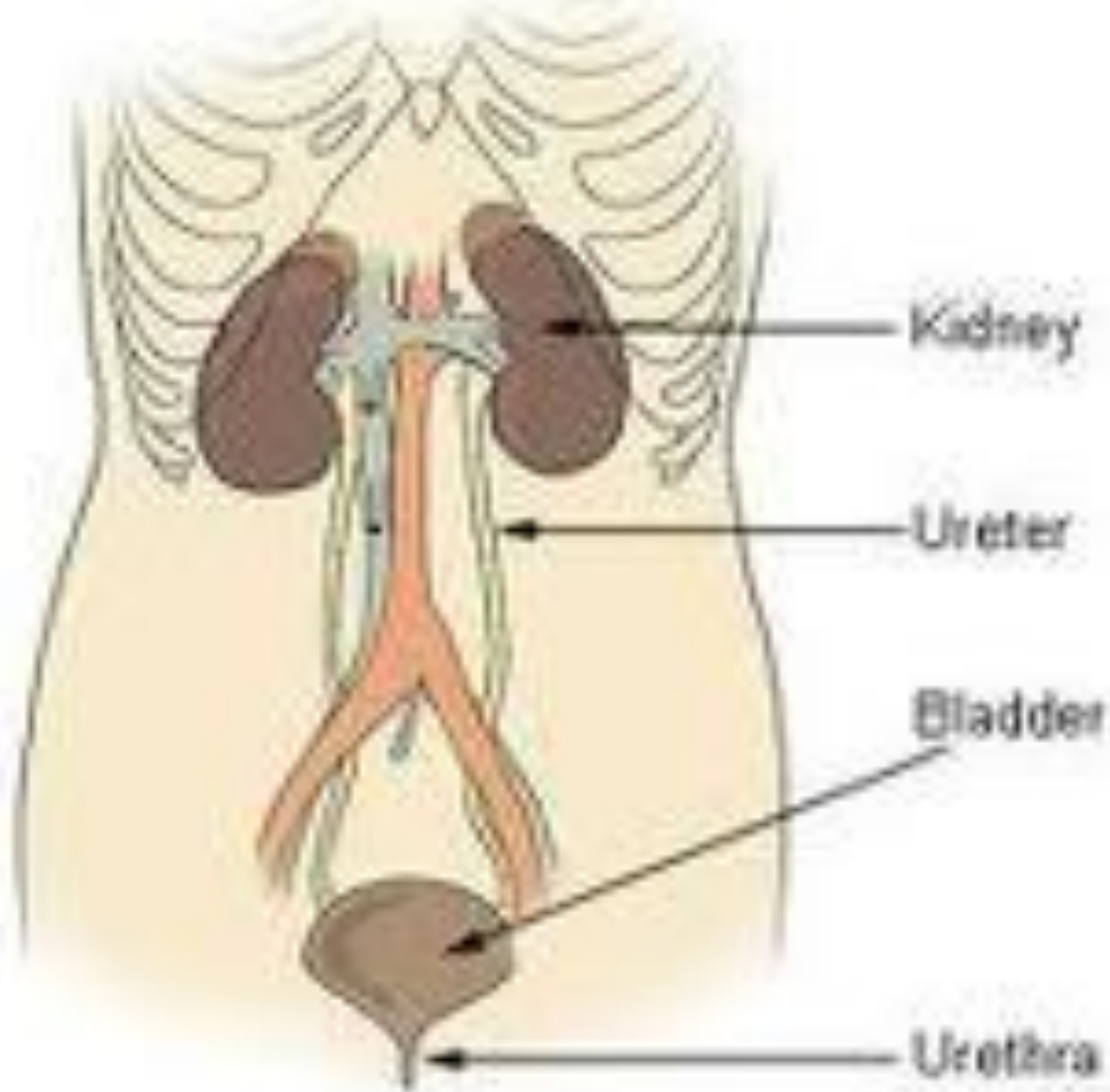
Glomerulus

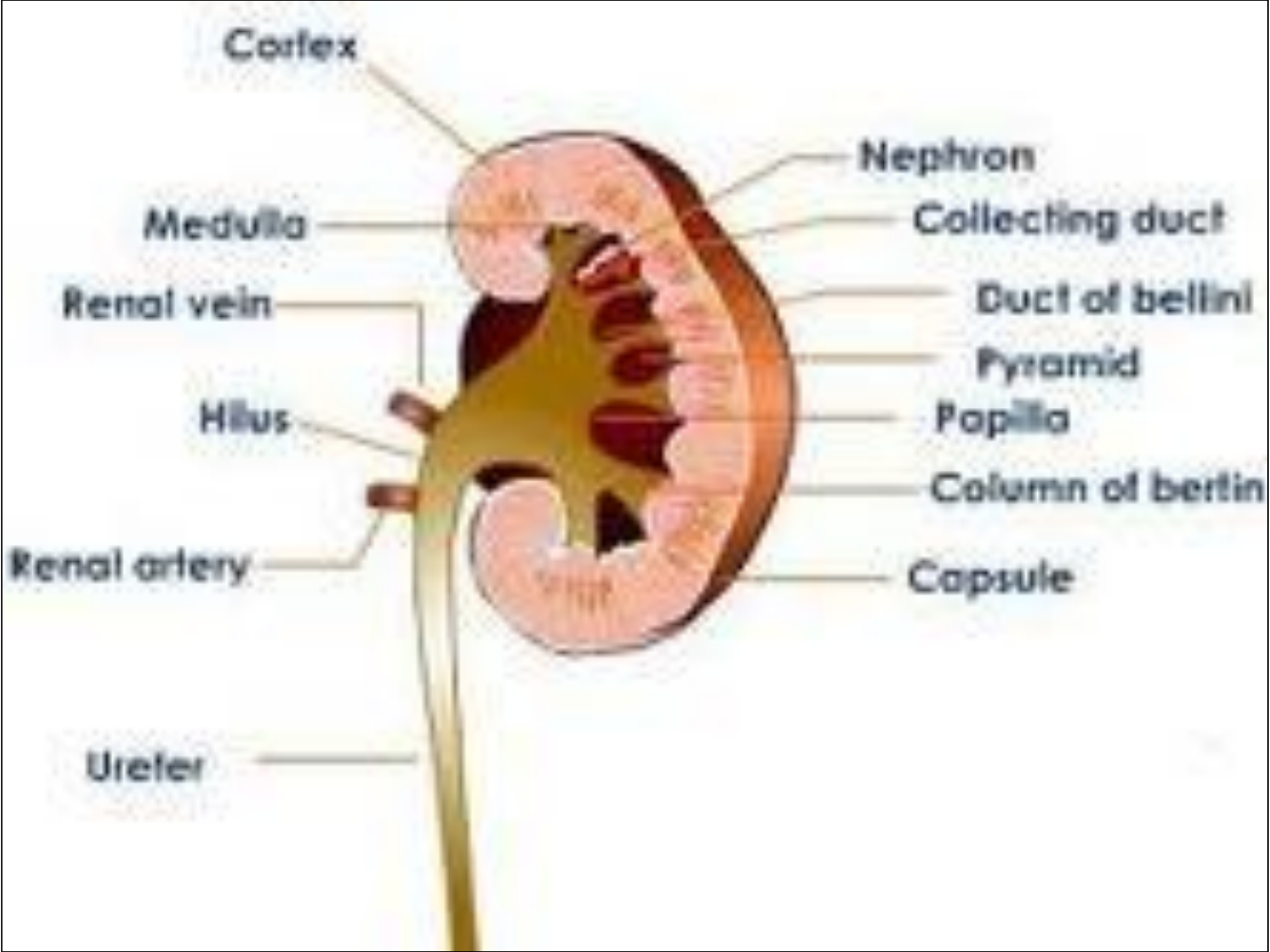


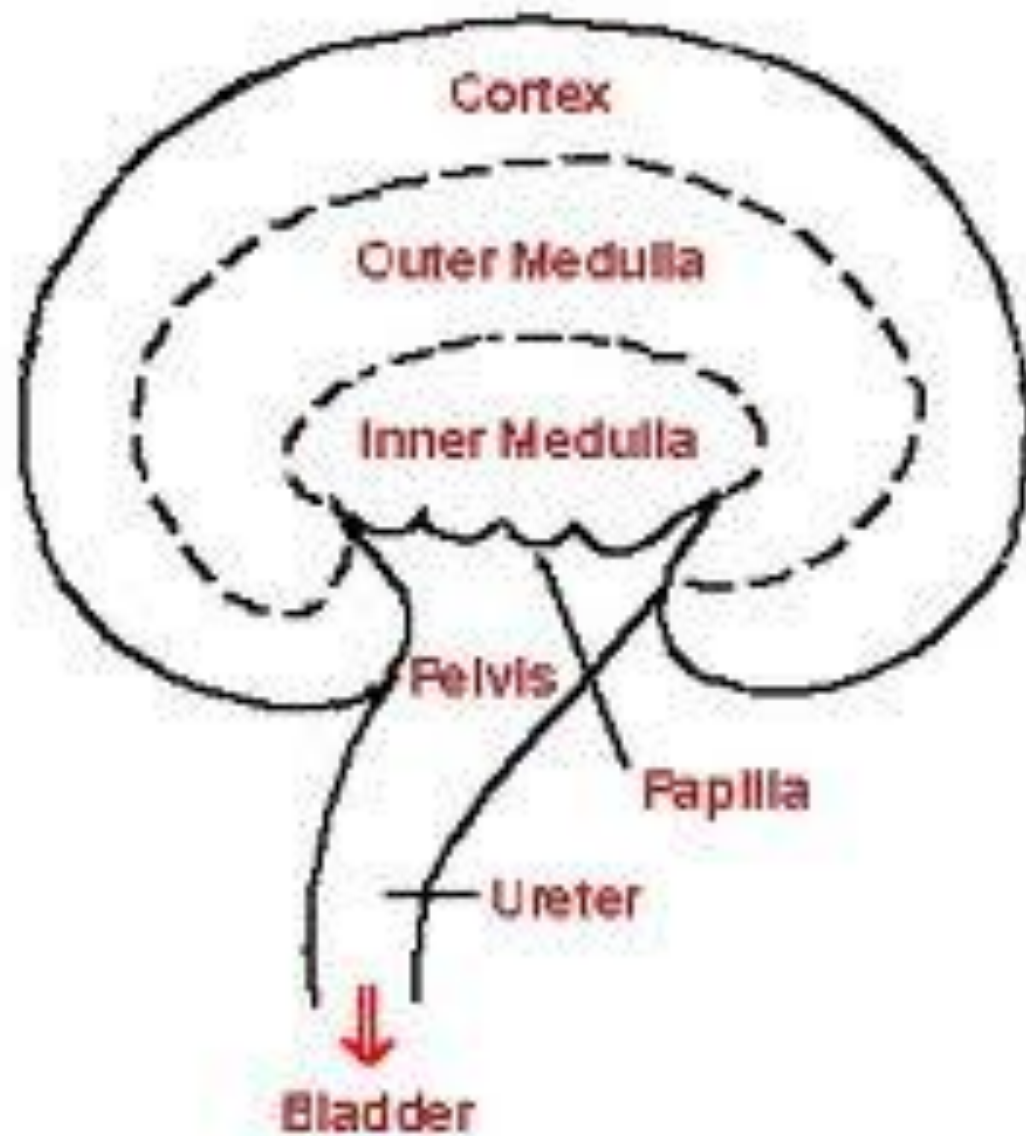
Frontal section through the Kidney

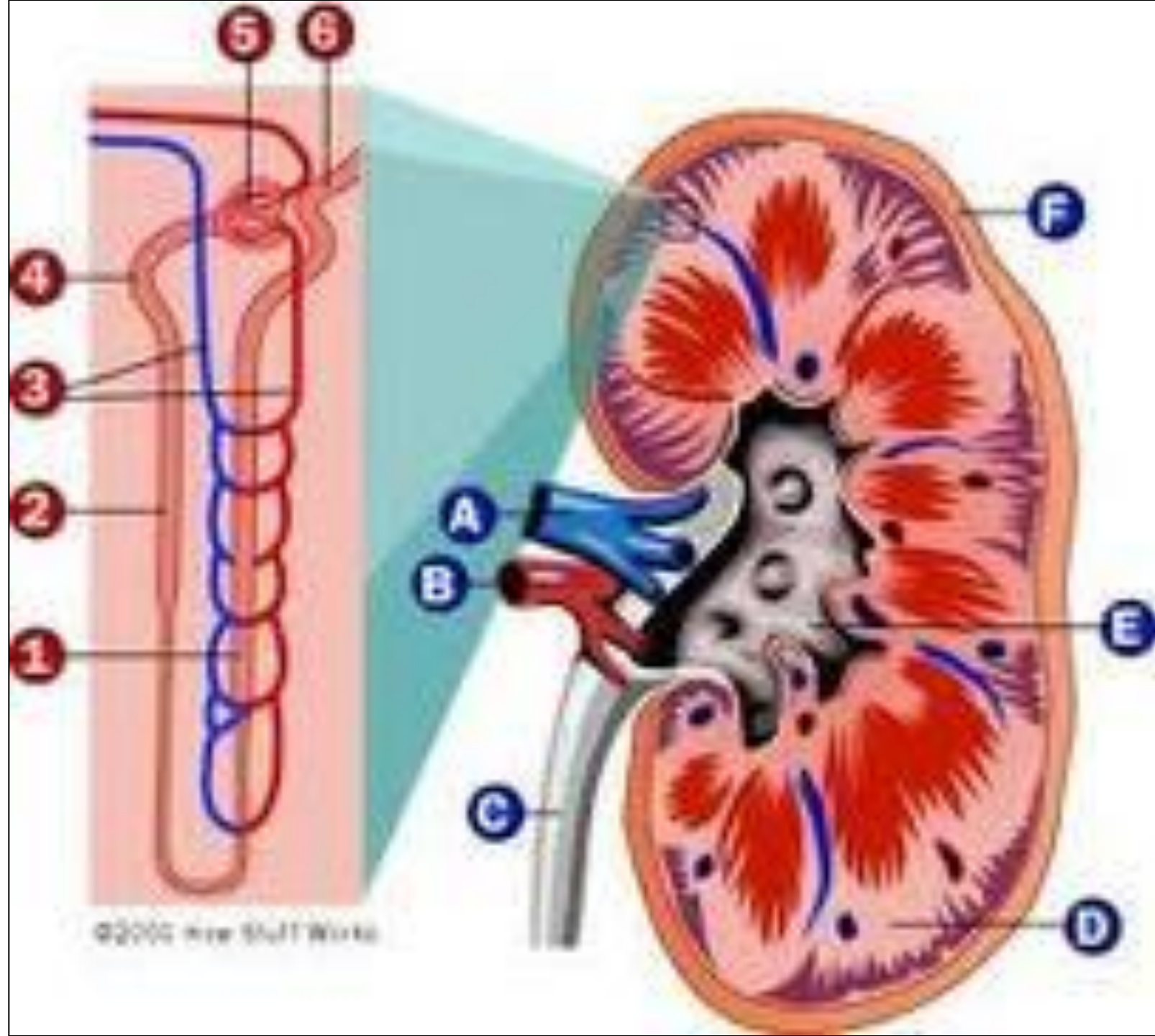


Components of the Urinary System

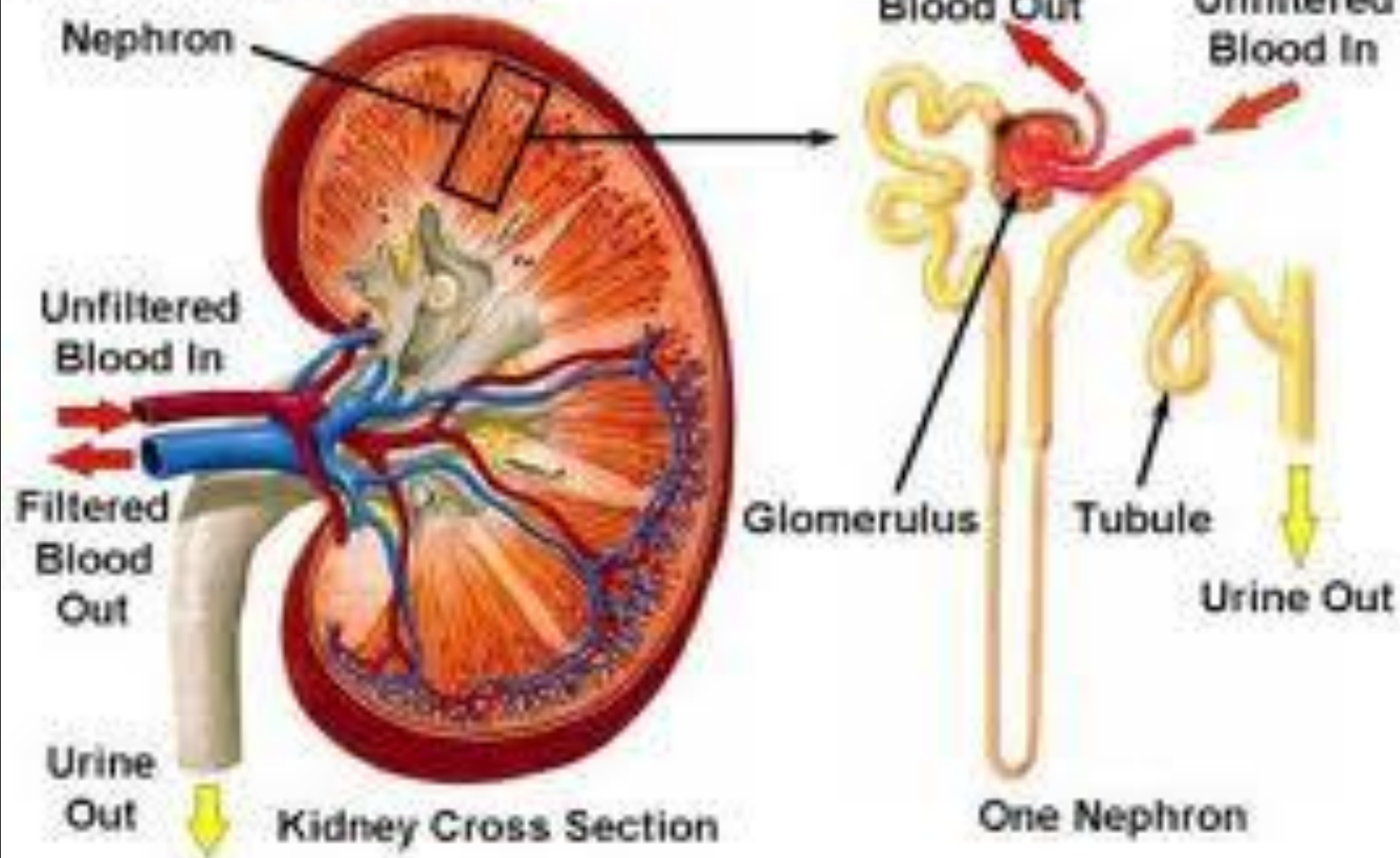


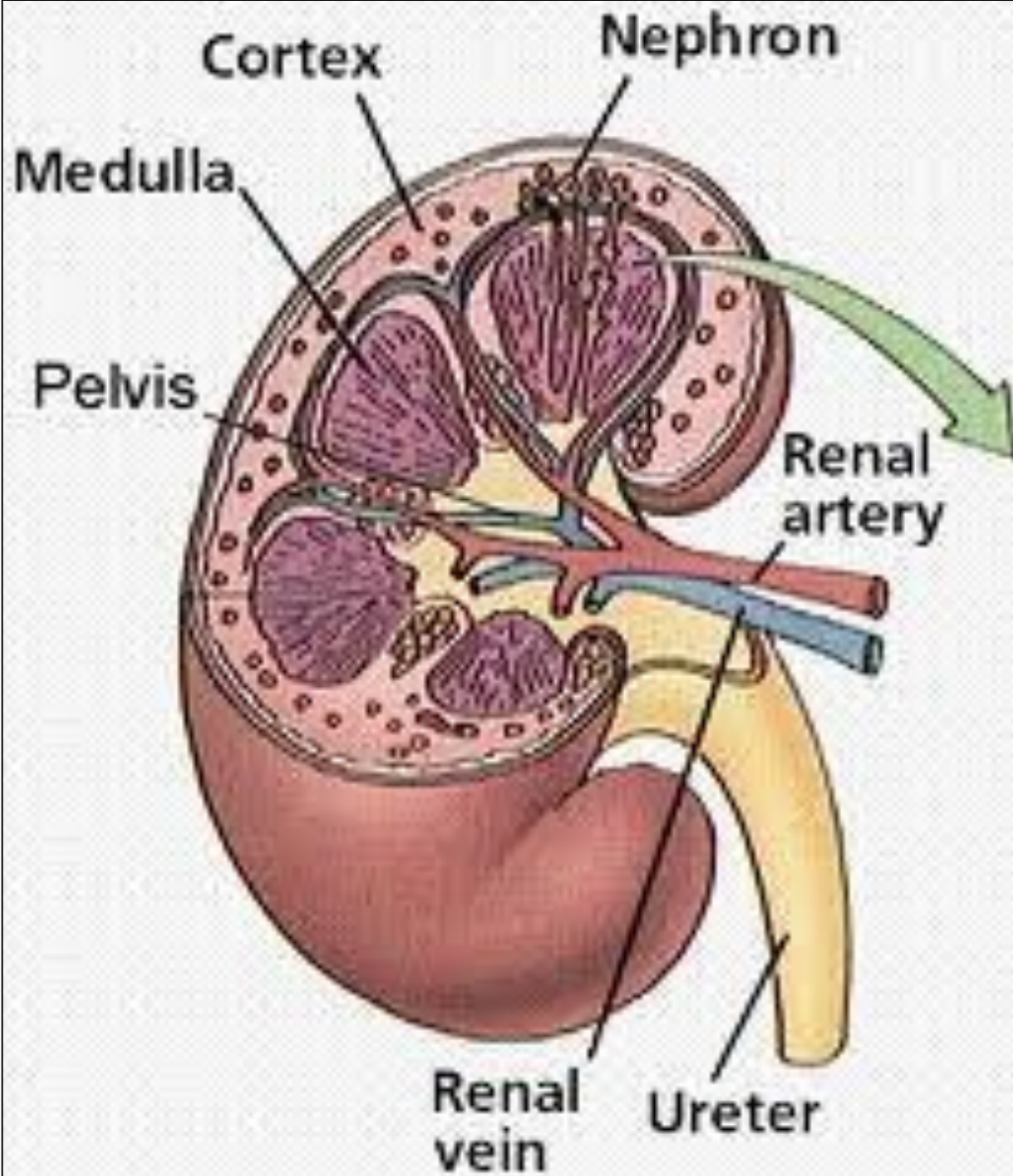


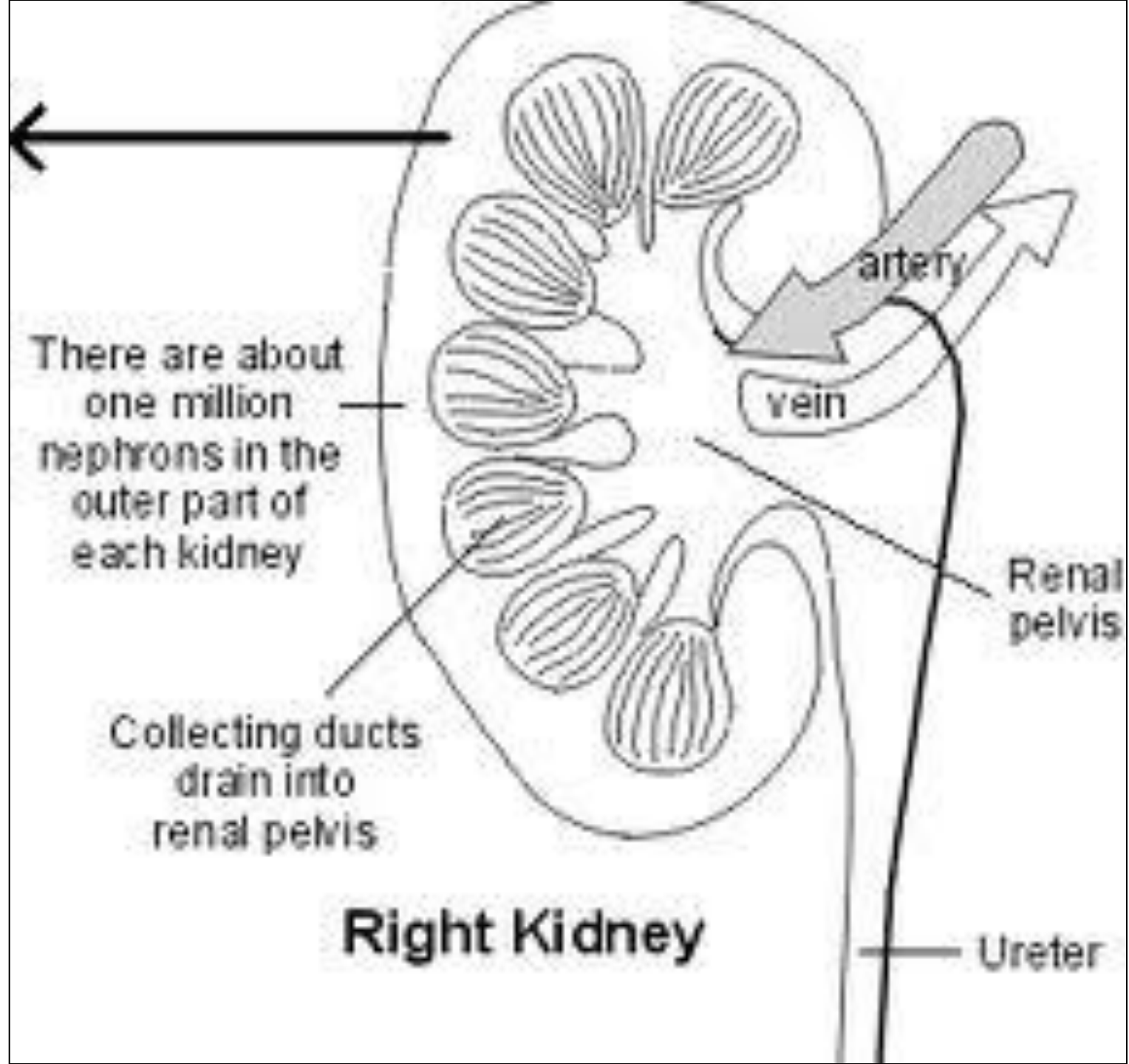


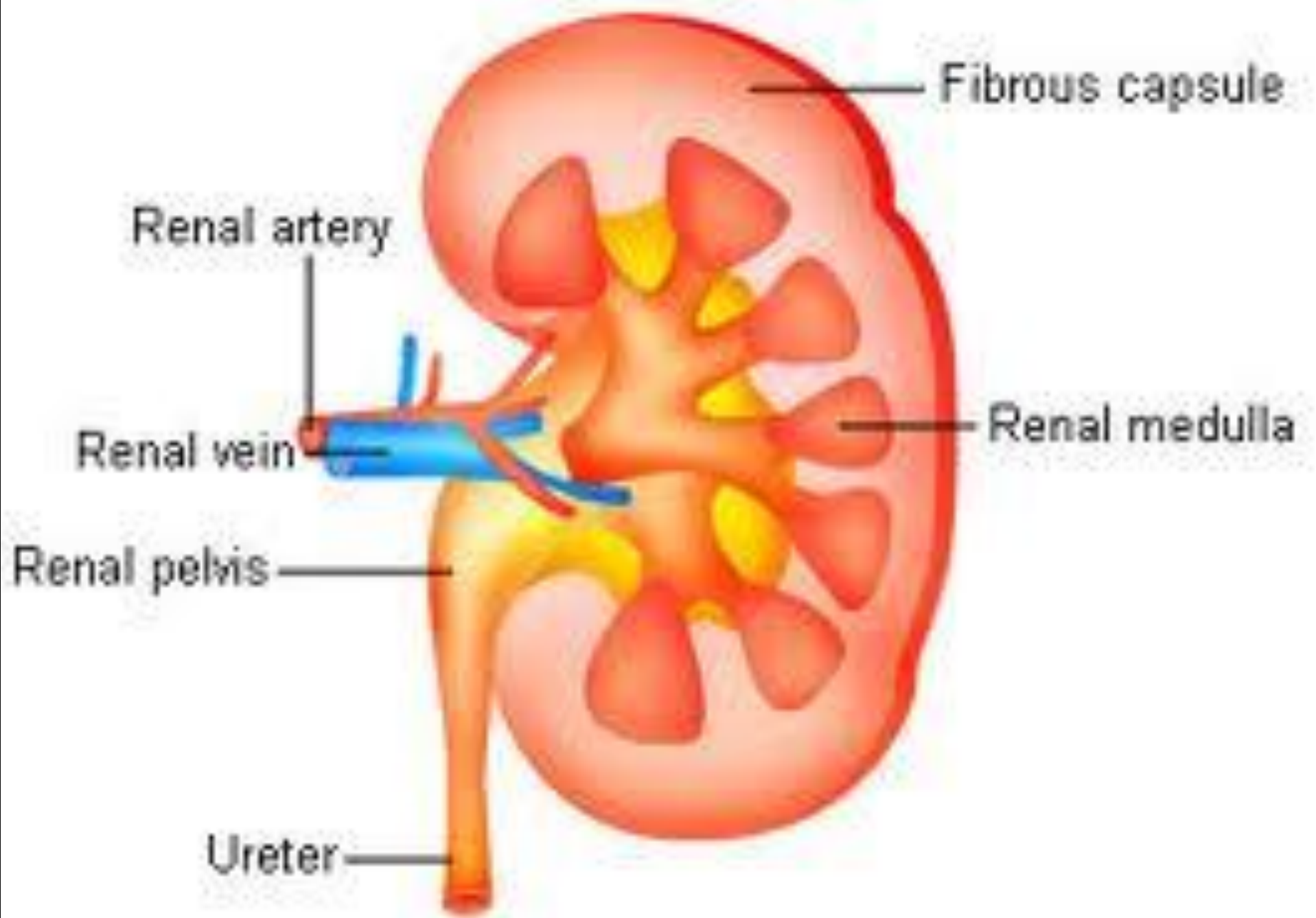


Parts of the Nephron

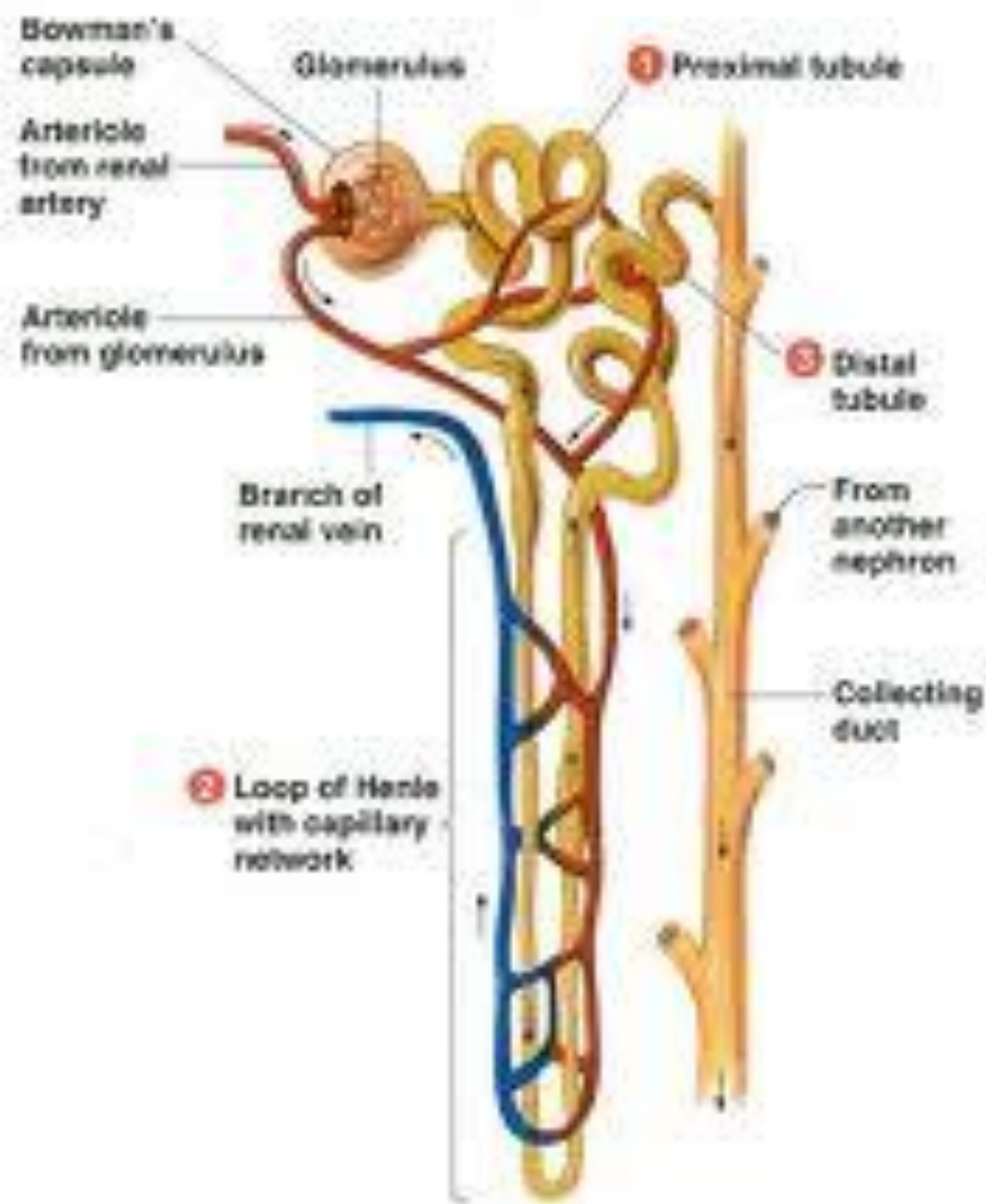


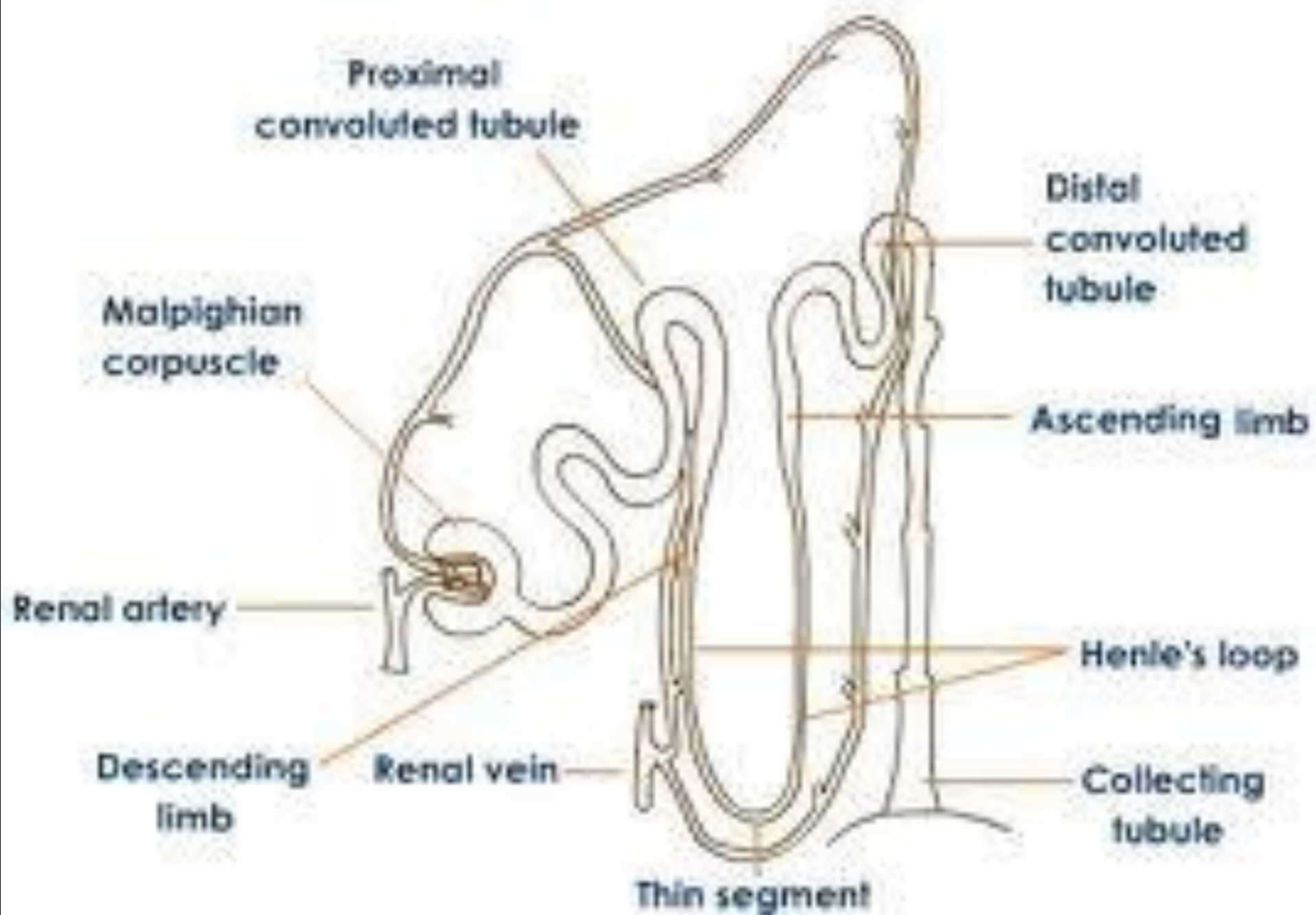




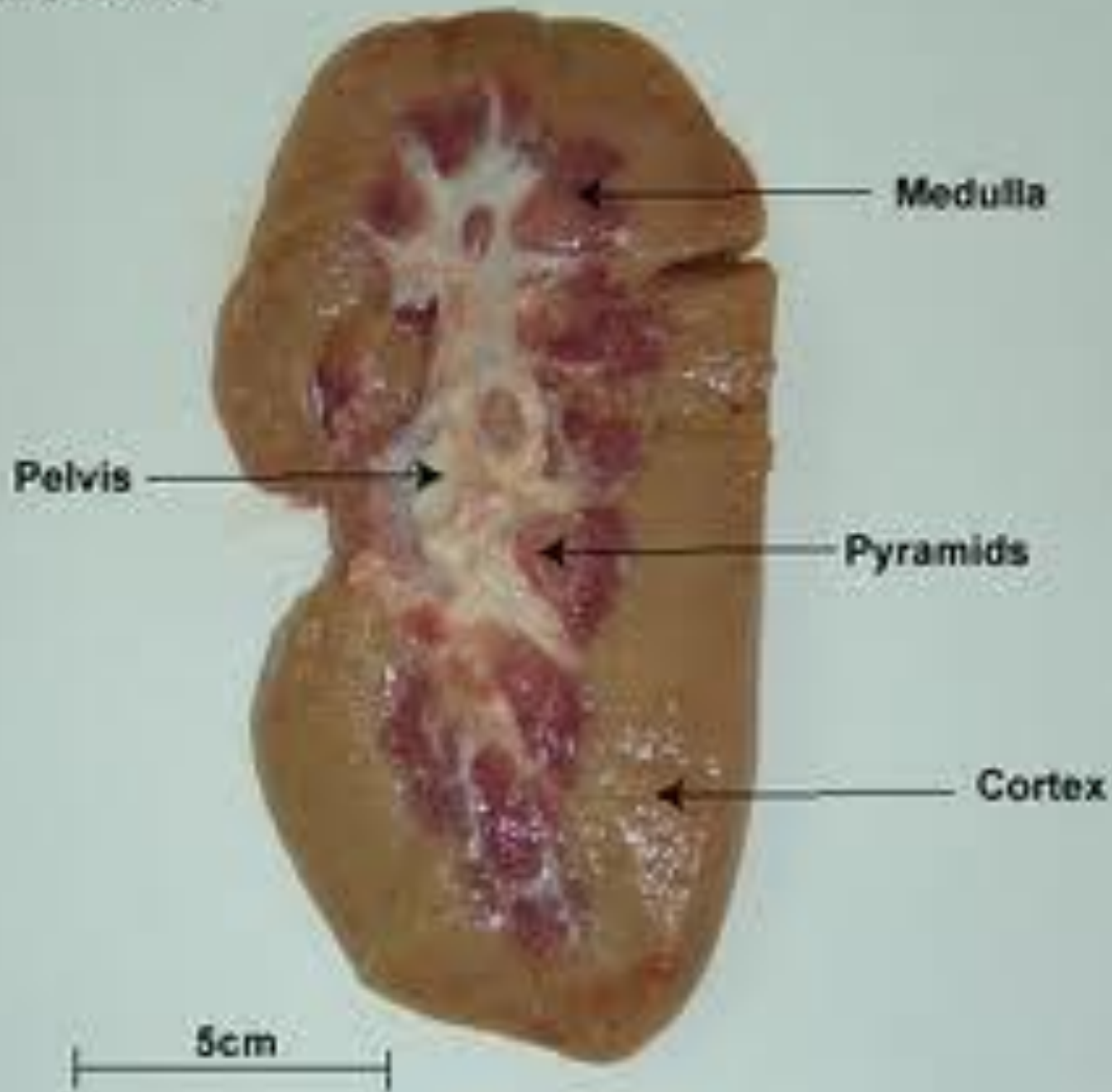


Detailed structure of a nephron



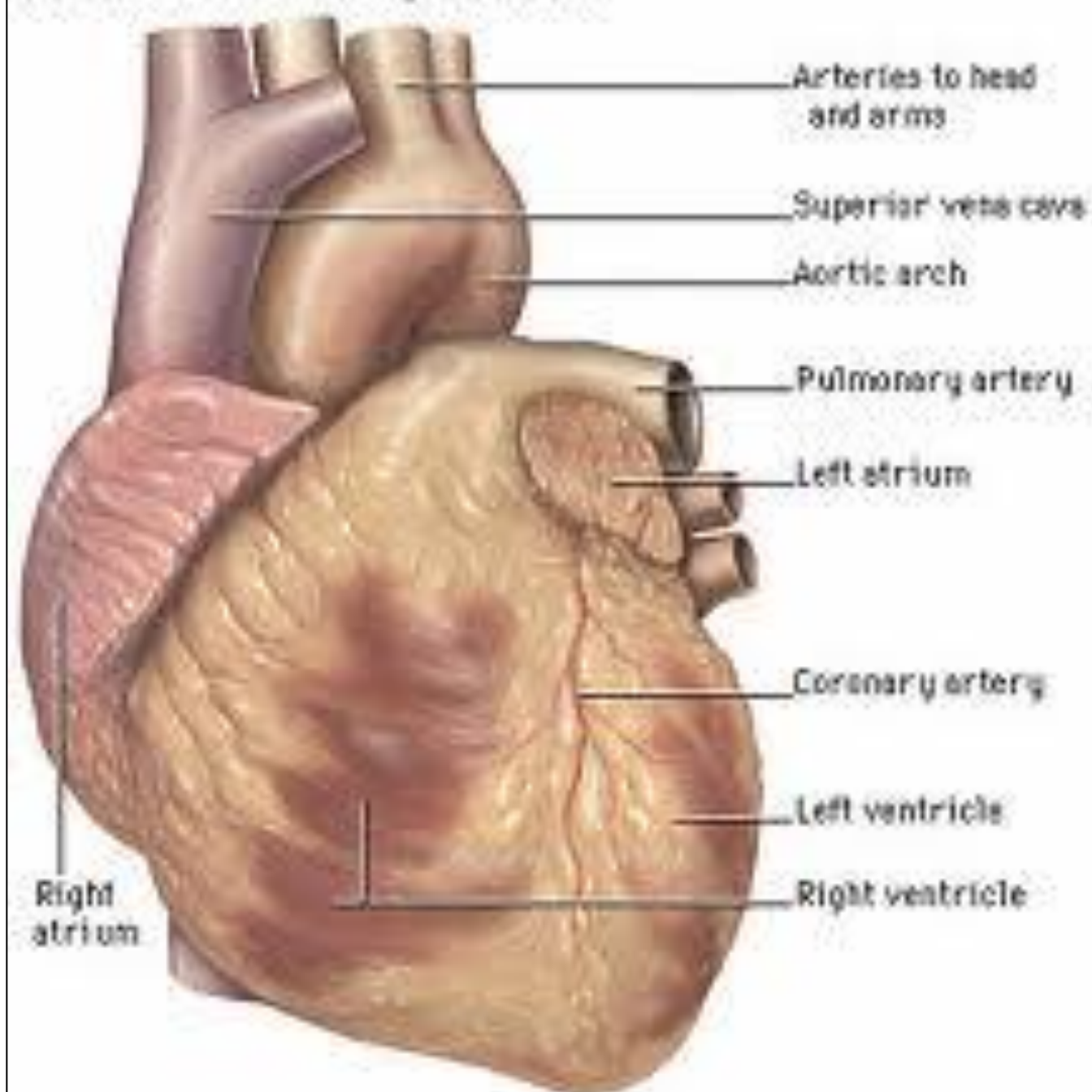


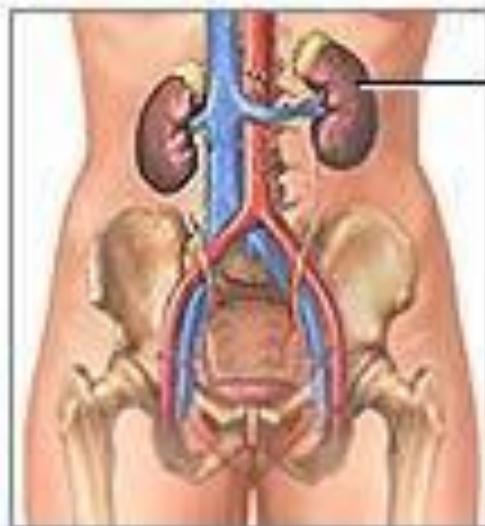
Pig Kidney





Exterior structures of the heart





Kidney

Calyces

Renal artery

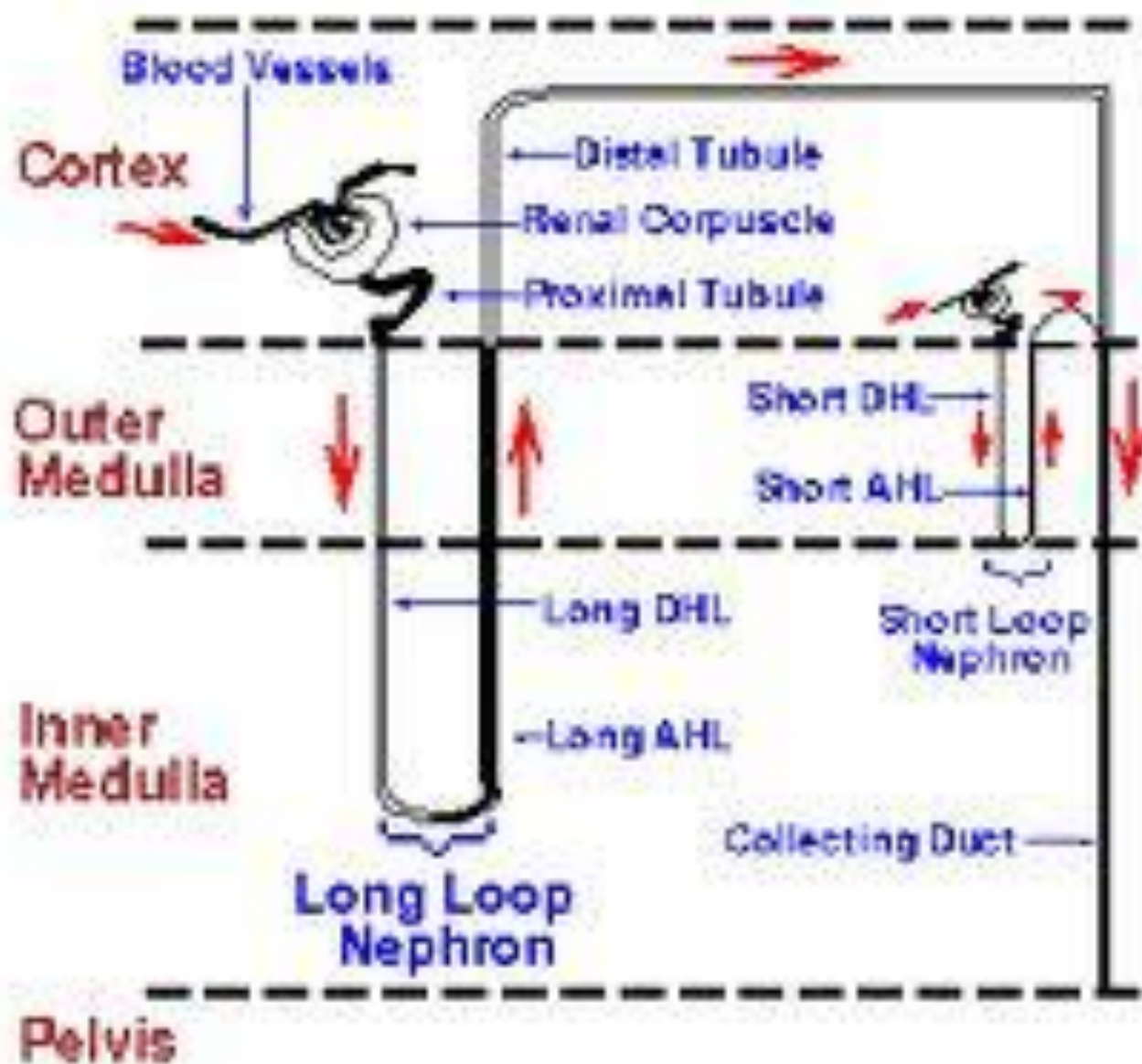
Renal pelvis

Renal vein

Medulla

Ureter

Cortex



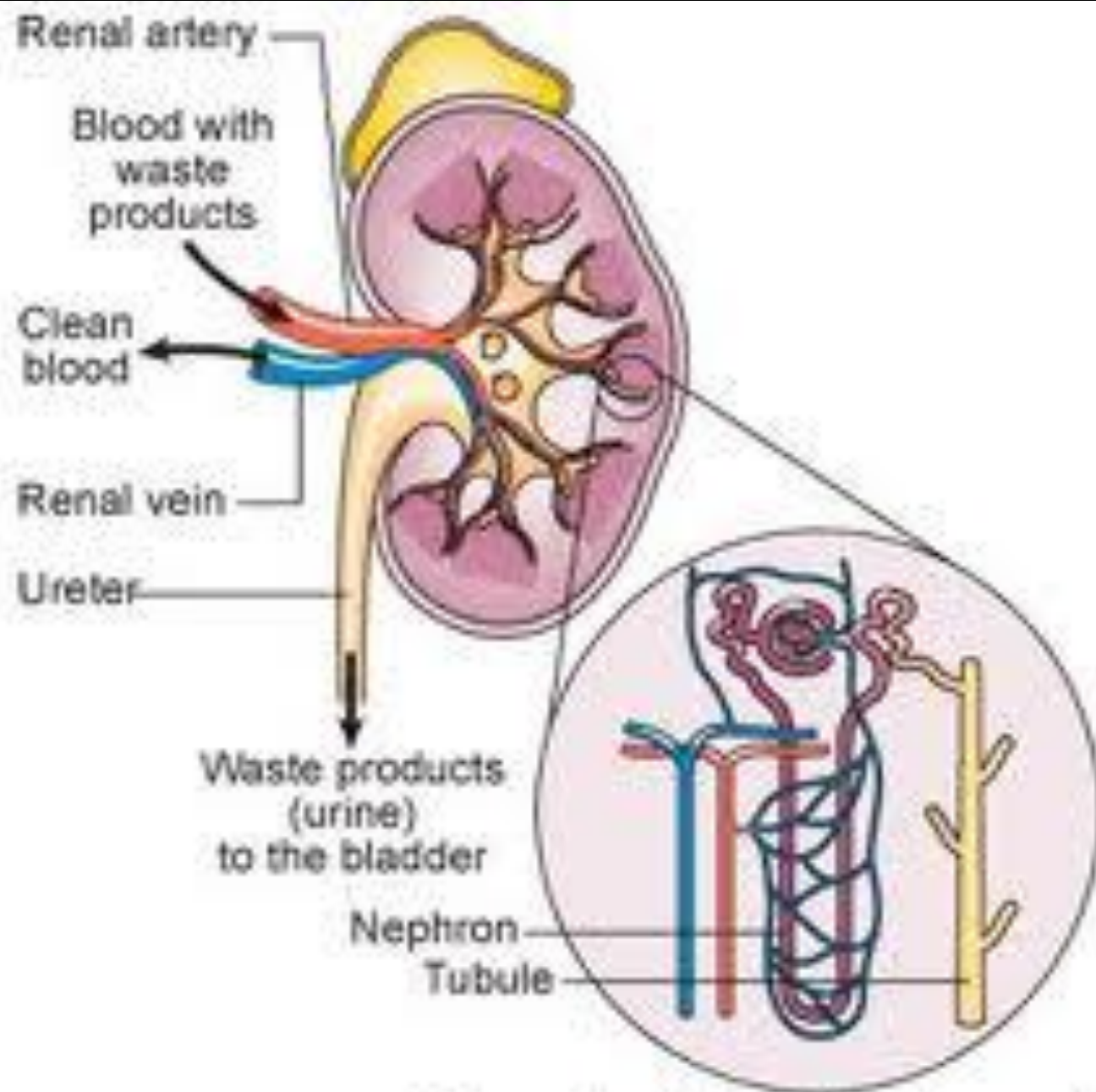
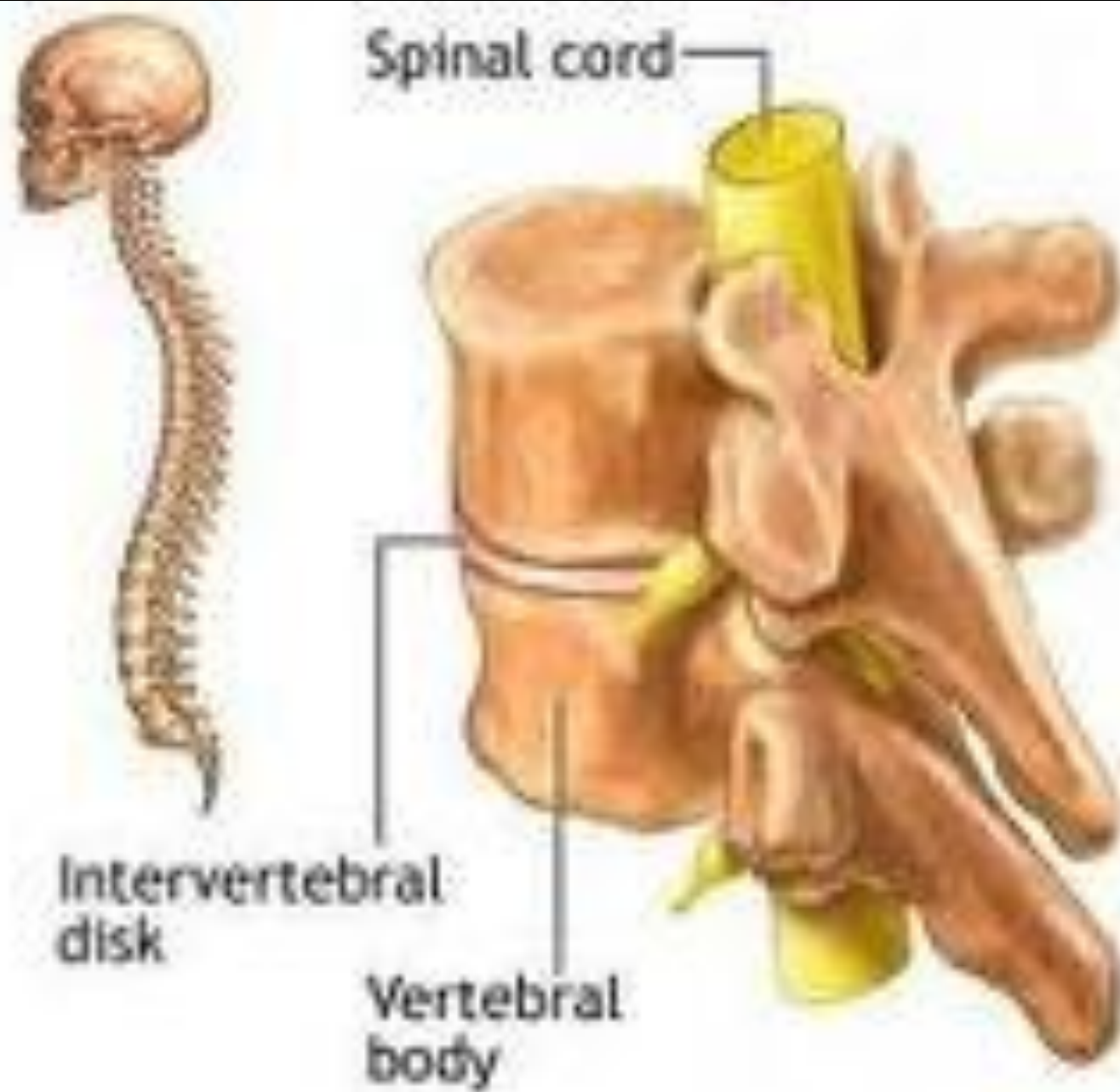


Diagram showing how the kidneys work
©CancerHelp UK



← POSTERIOR ANTERIOR →

Superior
Articular
Process

Intervertebral
Foramen

Transverse
Process

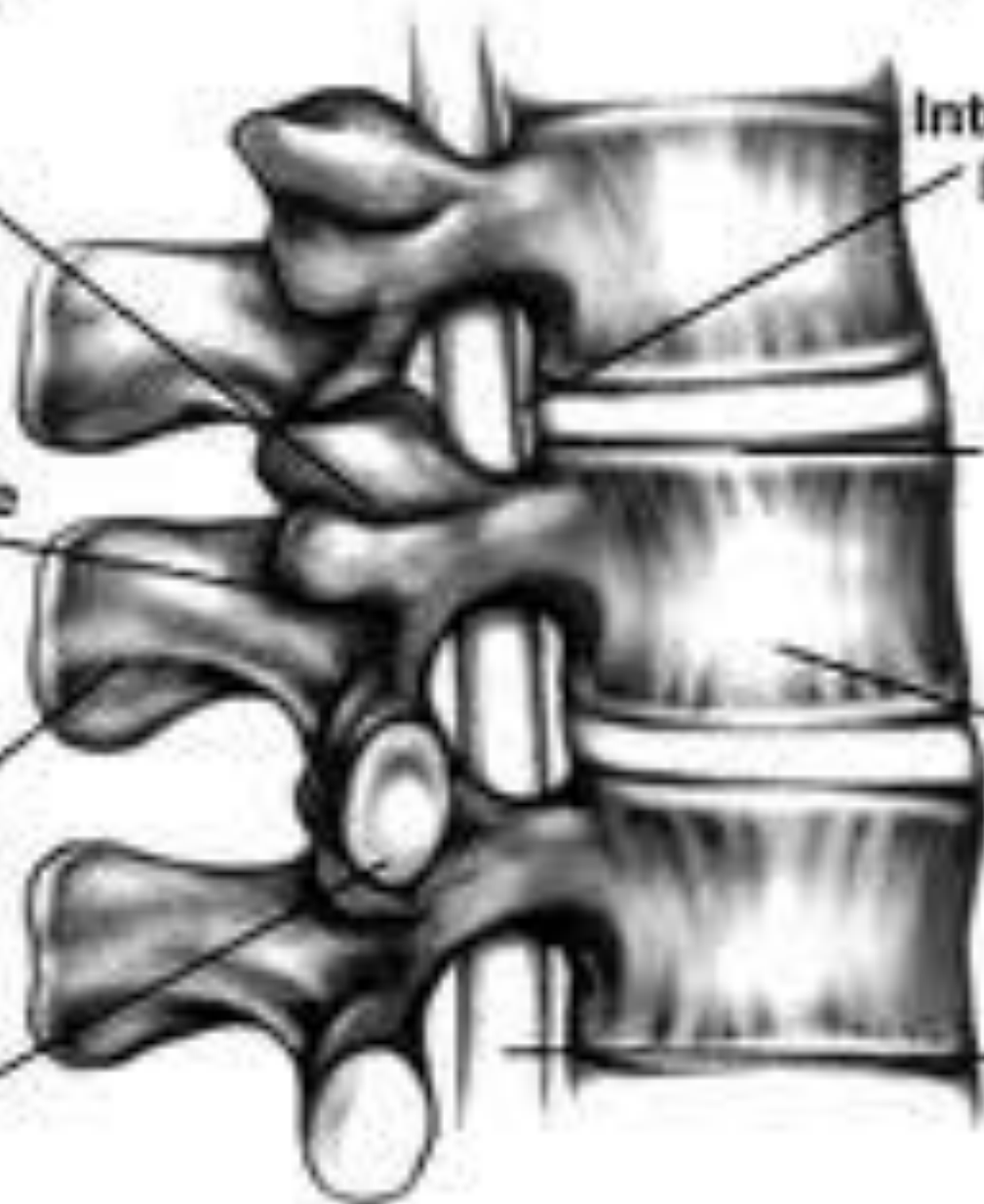
Intervertebral
Disc

Spinous
Process

Body

Inferior
Articular
Facet

Spinal
Cord

















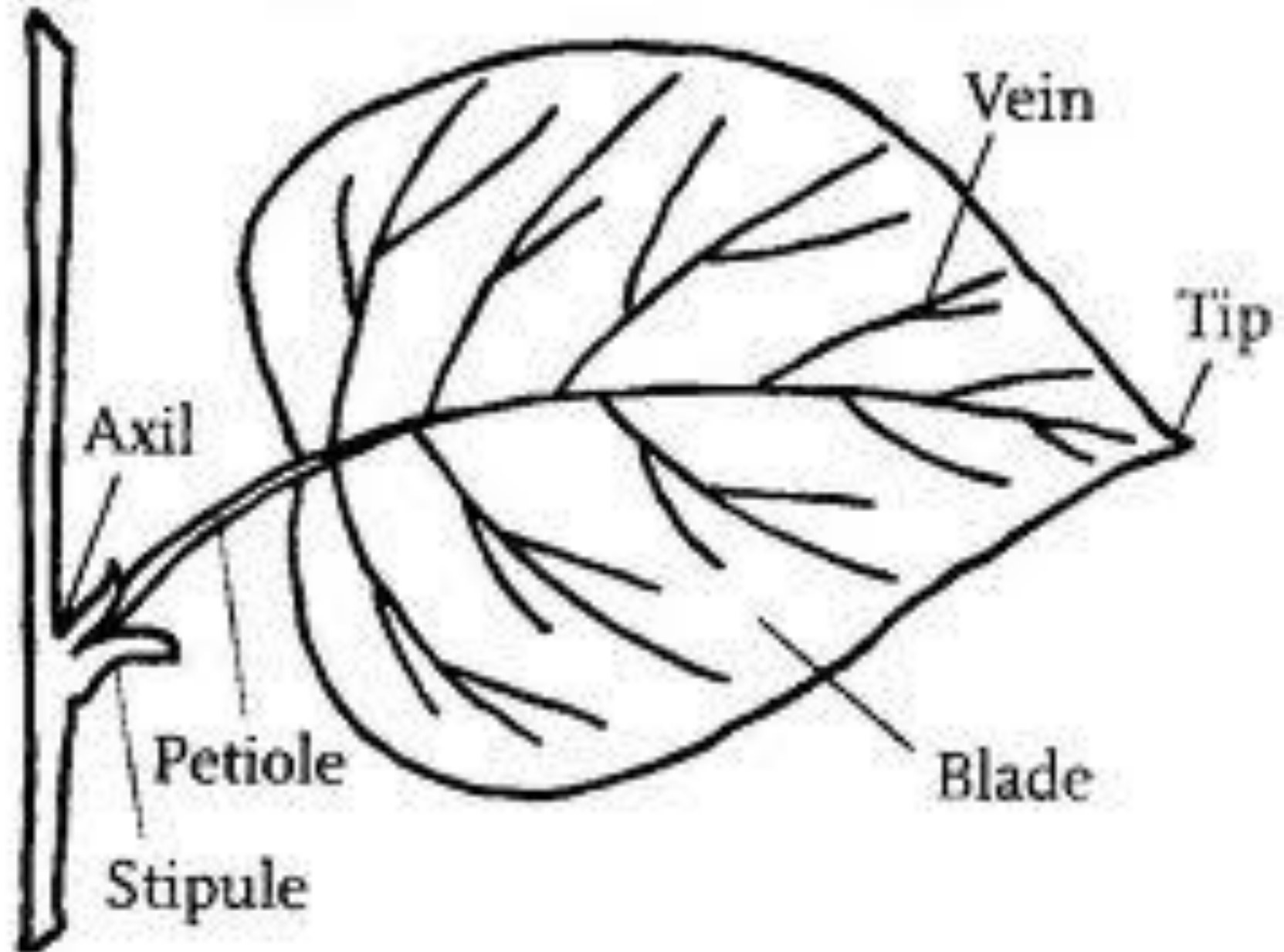








LEAF PART NAMES





Lumbar Vertebrae

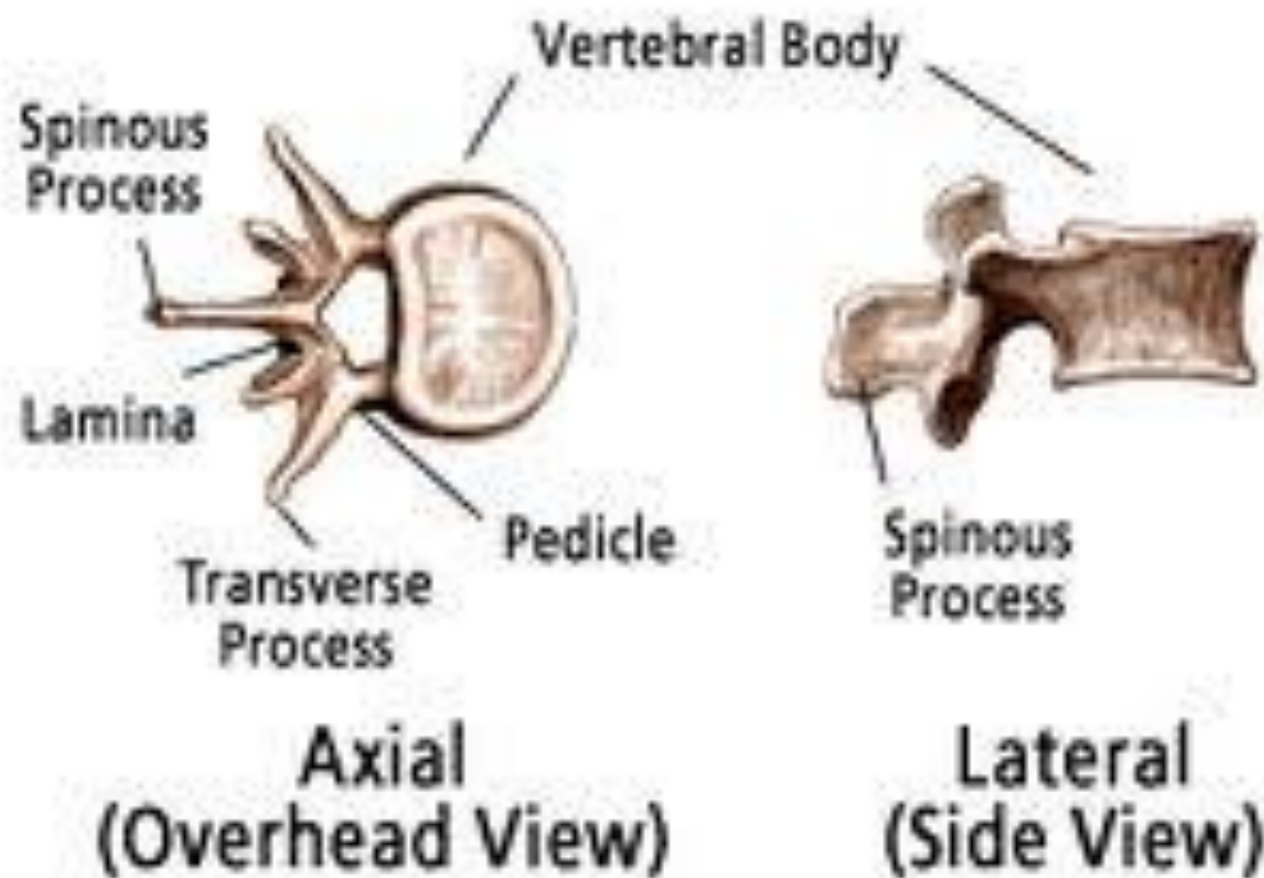
**Axial
(Overhead)
View**



**Lateral
(Side)
View**



Lumbar Vertebrae

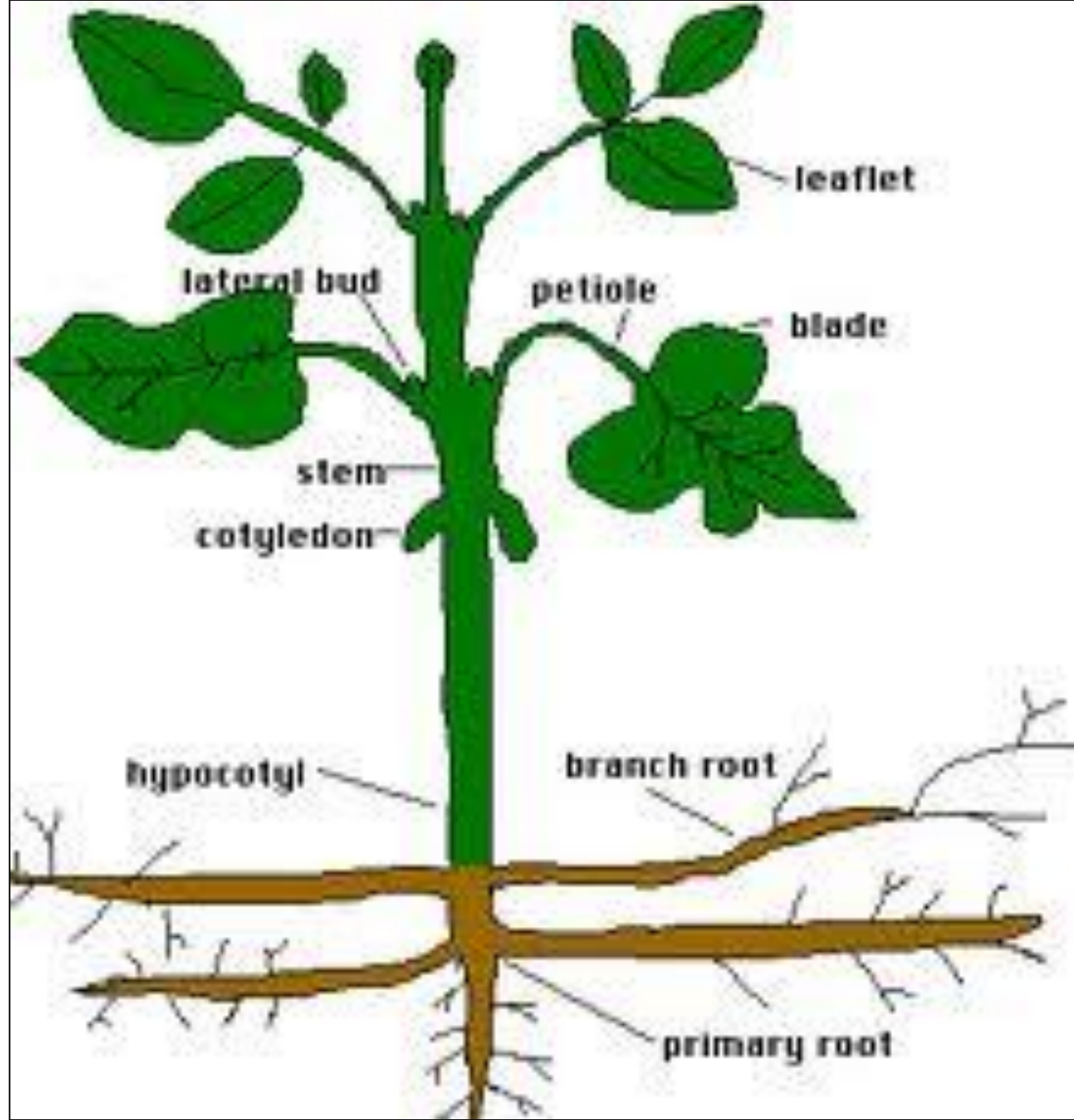




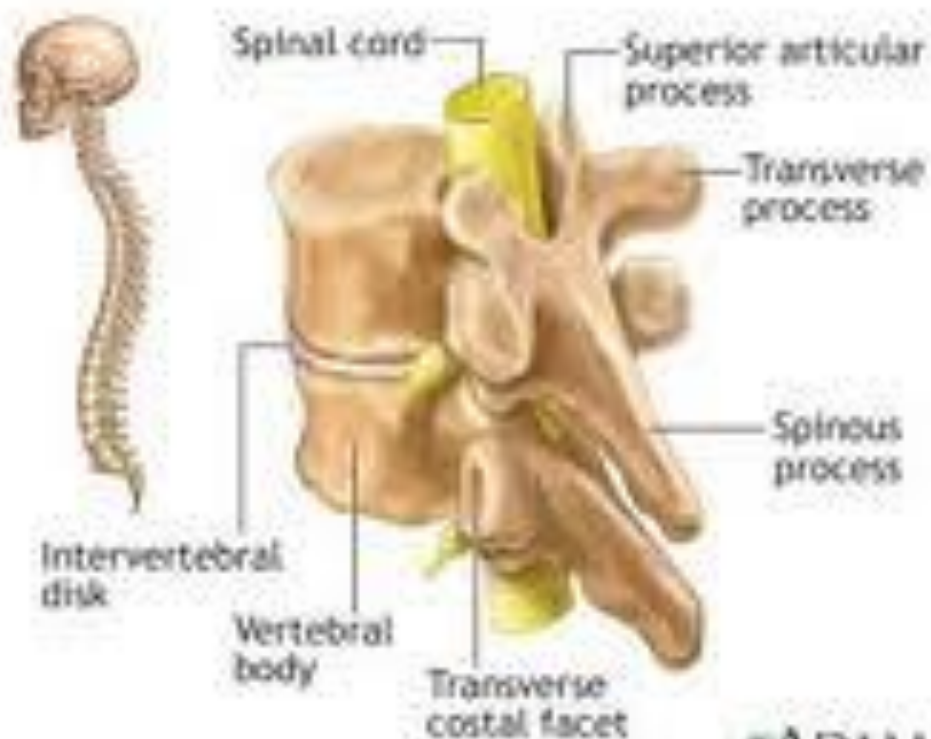
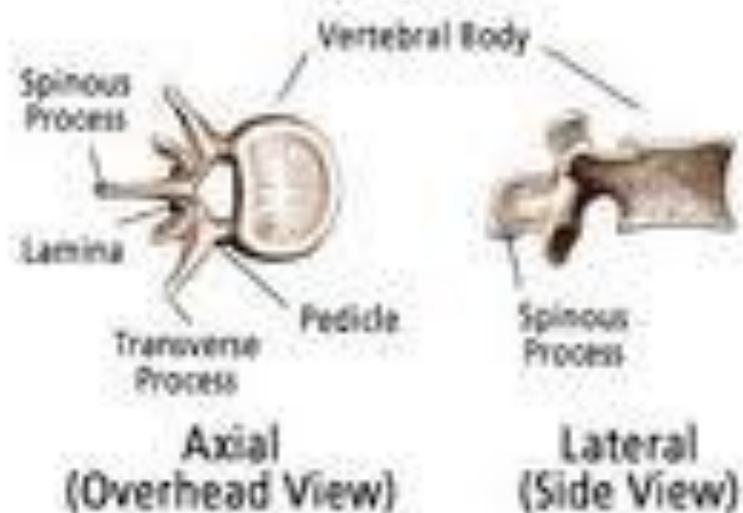
Intervertebral disk

Lumbar vertebra



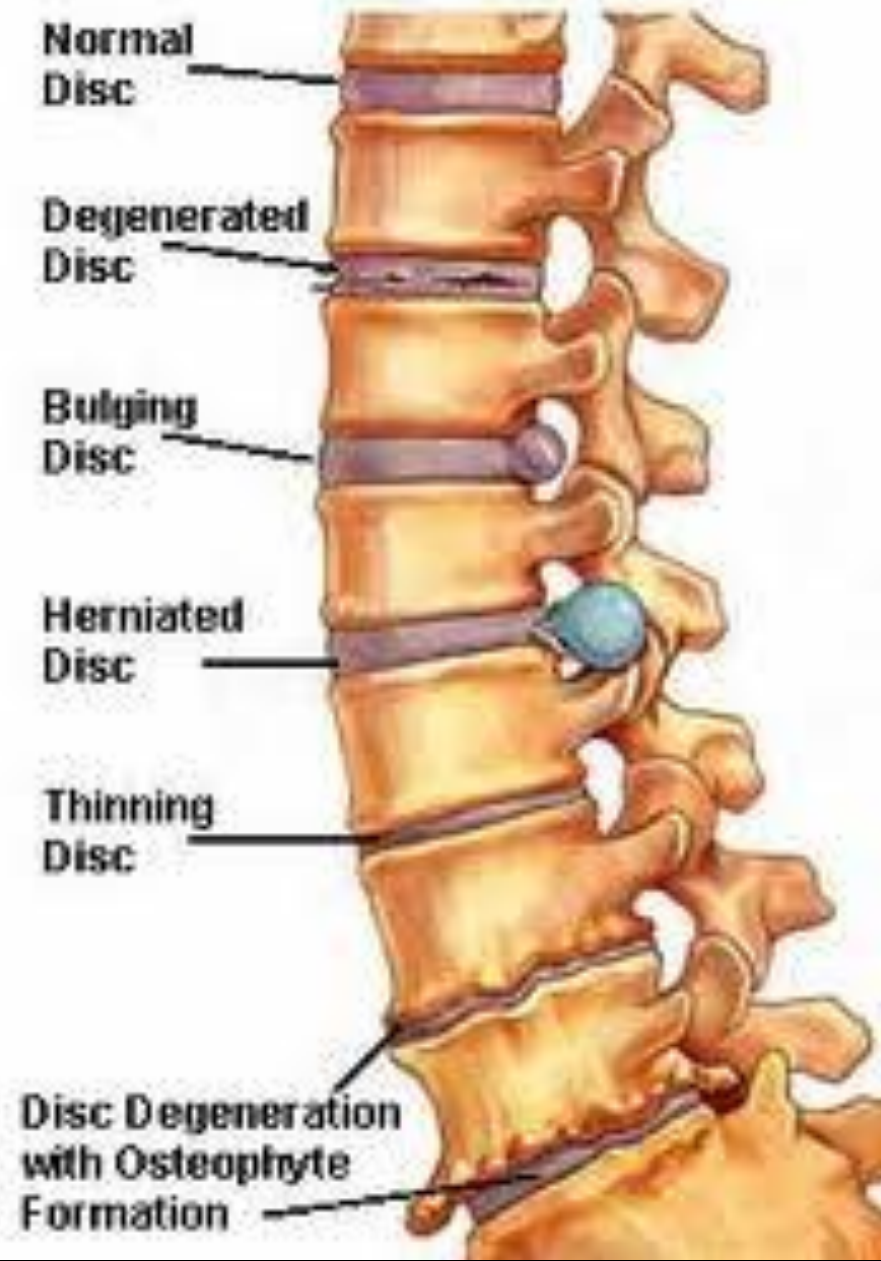


Lumbar Vertebrae



©ADAM

Examples of Disc Problems





Vertebral Column

Cervical vertebrae

Thoracic vertebrae

Lumbar vertebrae

Sacrum

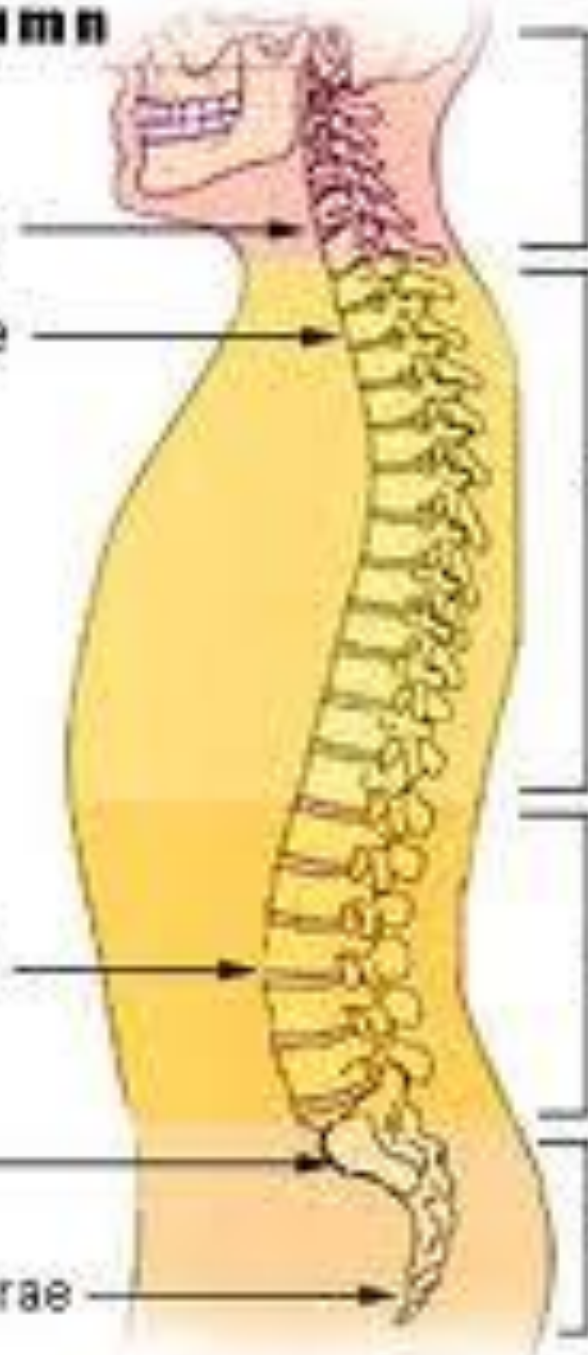
Coccygeal vertebrae

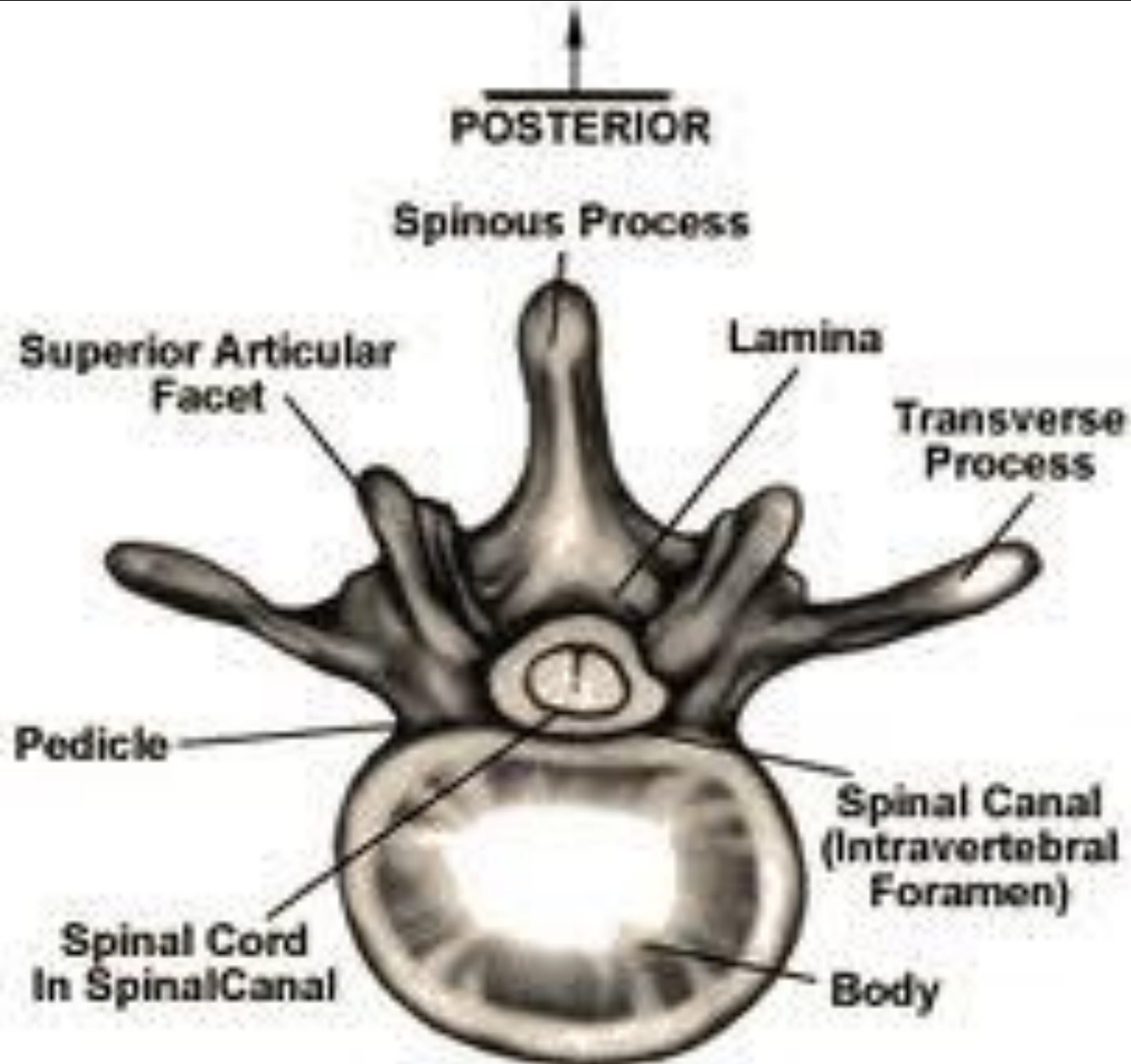
Cervical curve

Thoracic curve

Lumbar curve

Sacral curve





Lungs



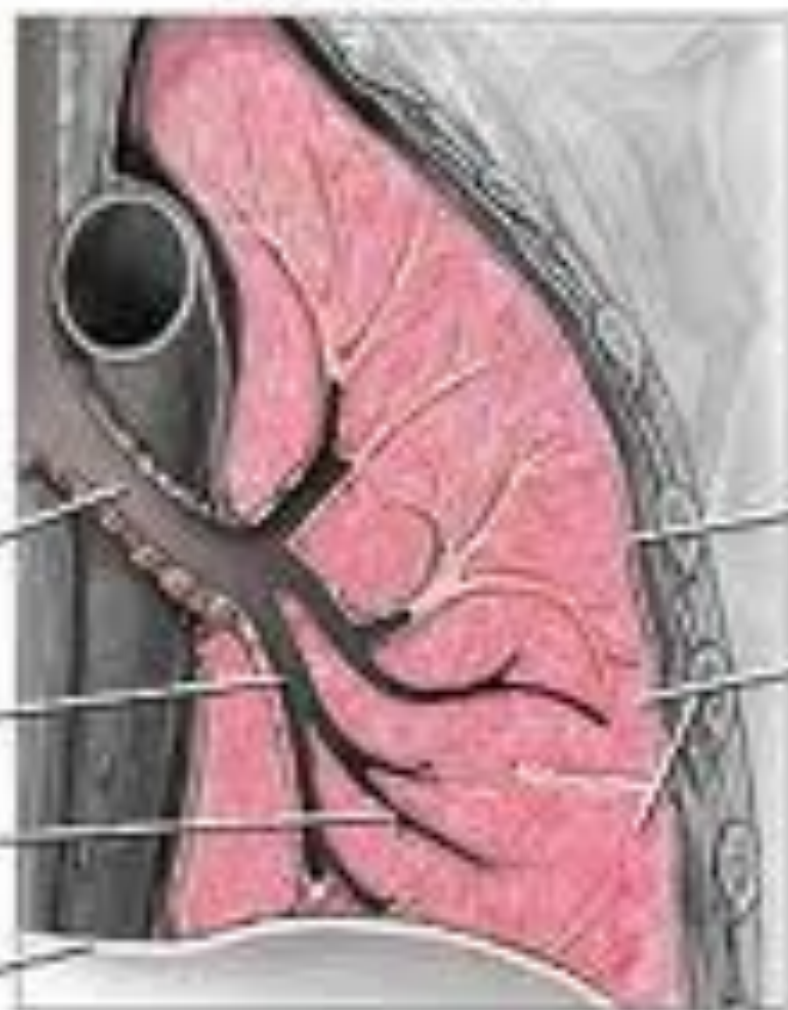
Left lung

Left main
stem bronchus

Bronchi

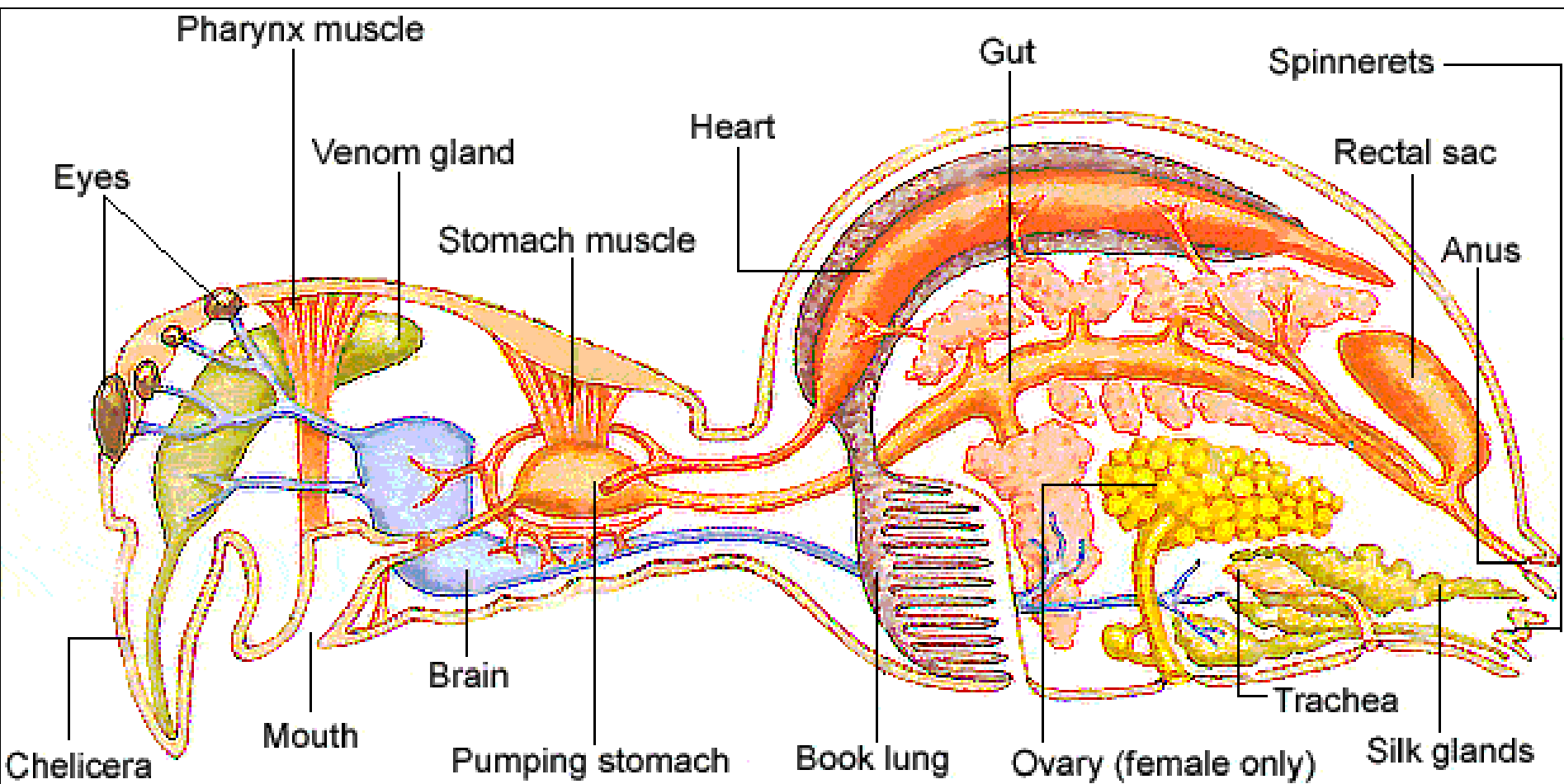
Bronchioles

Diaphragm

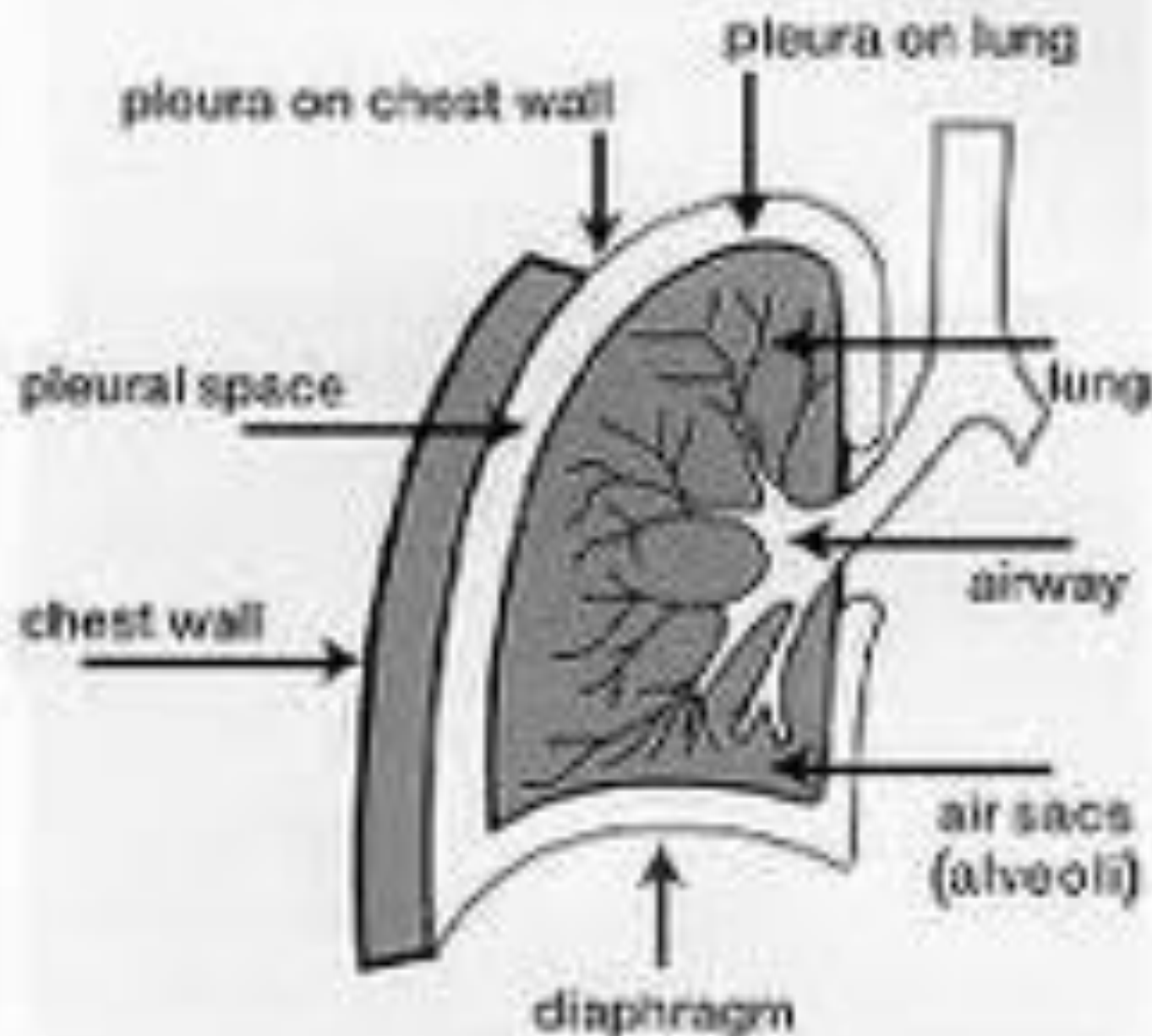


Pleura

Left
lobes



Normal lung anatomy





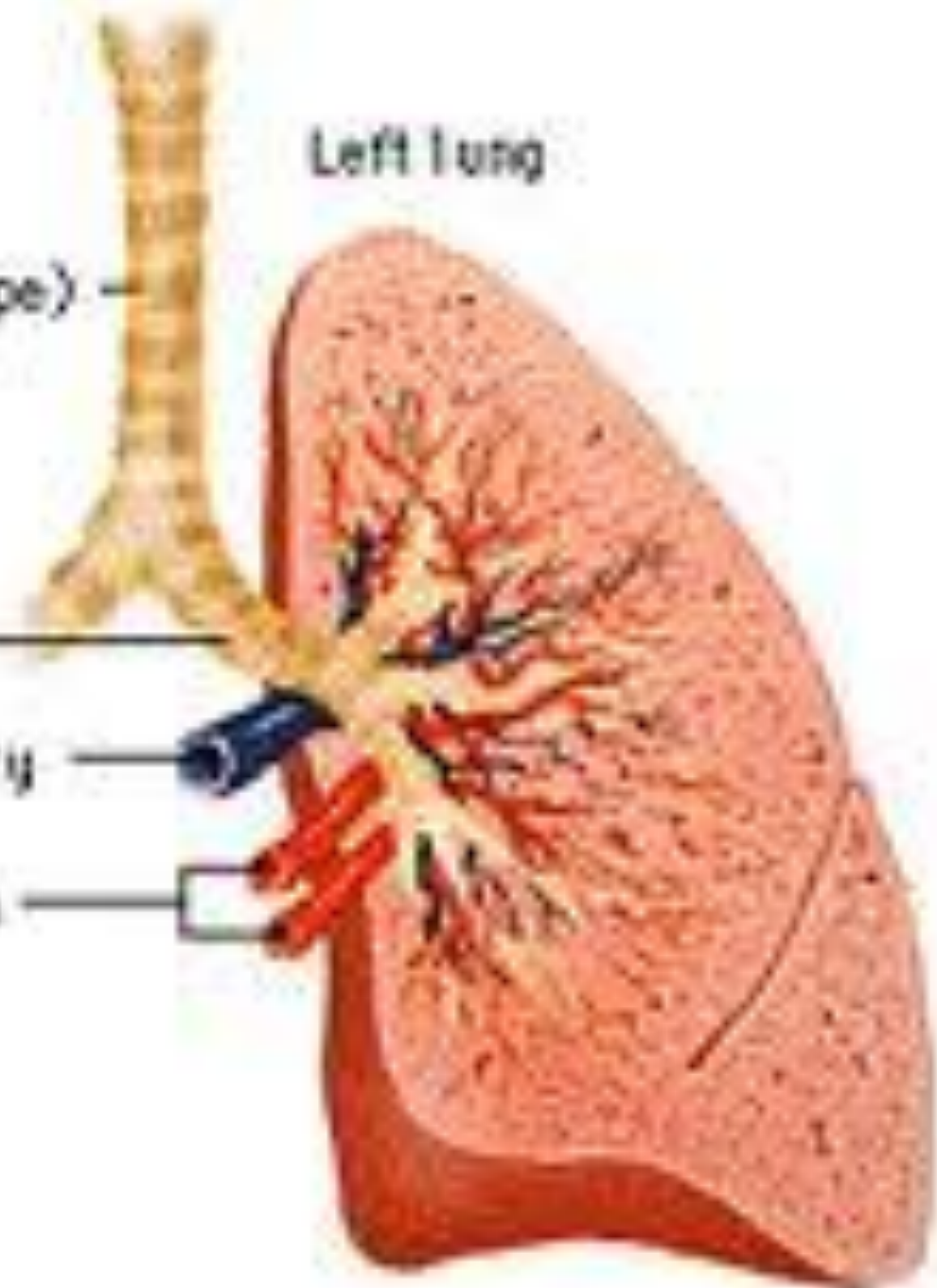
Trachea (windpipe)

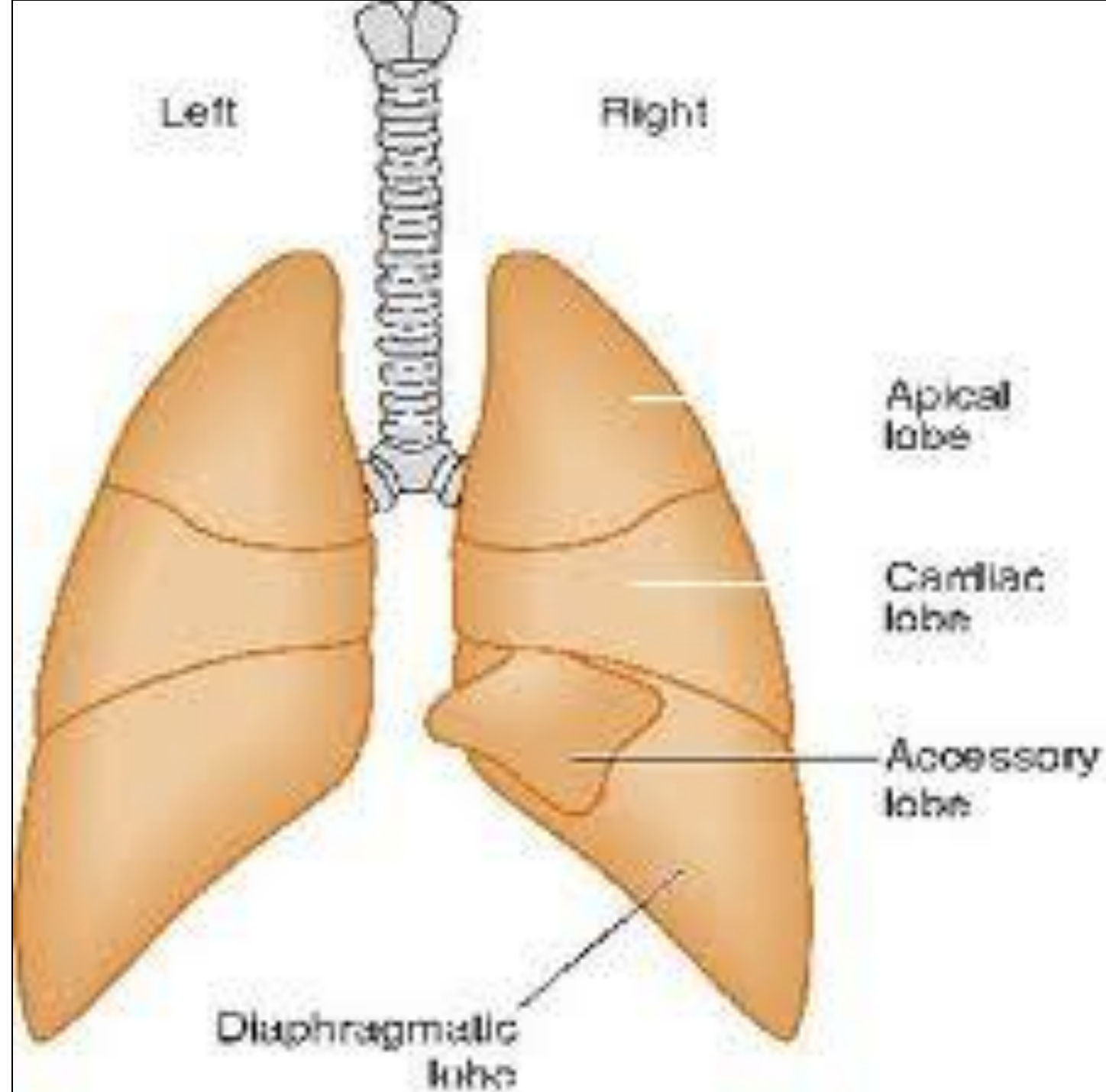
Left lung

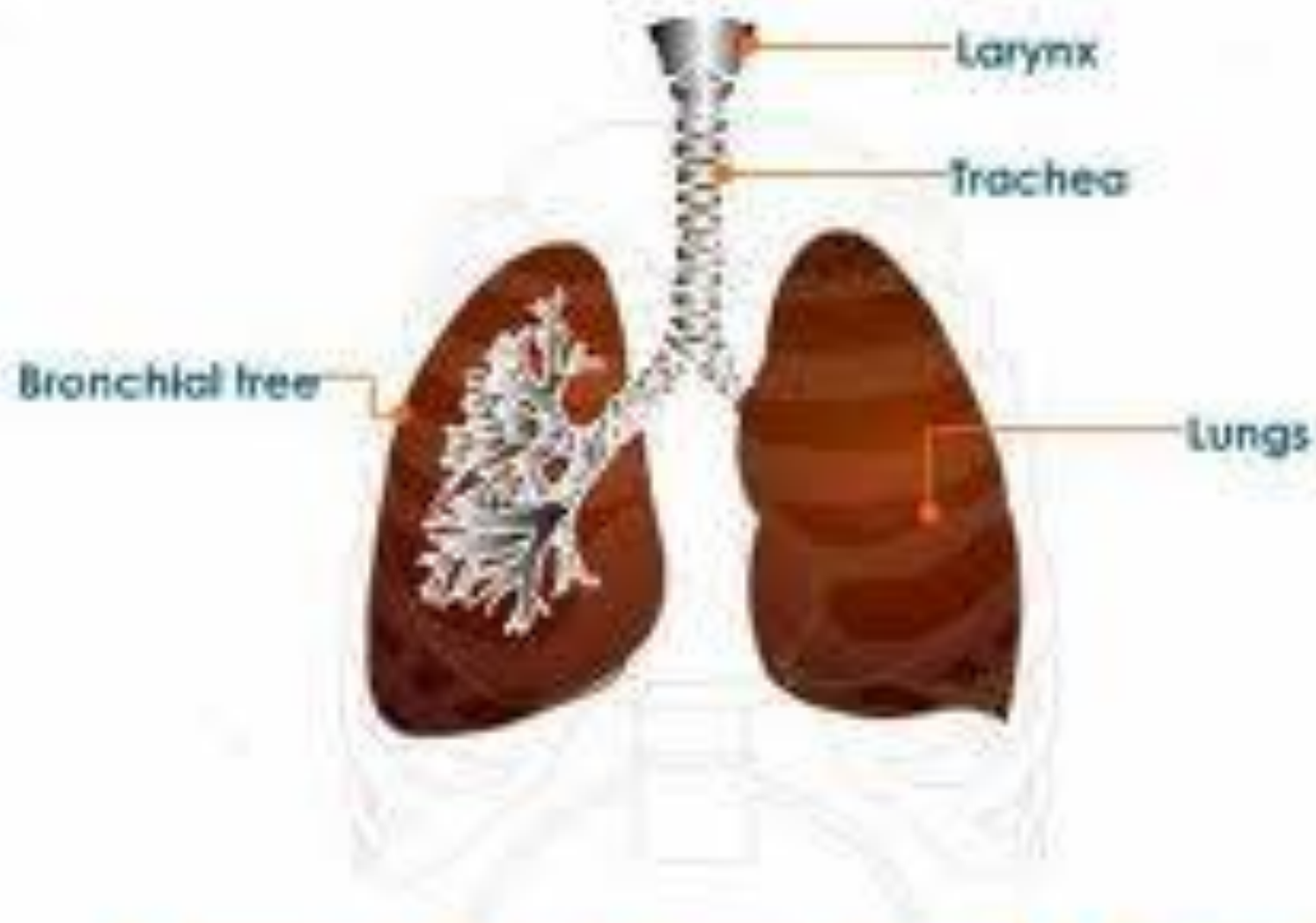
Bronchus

Pulmonary artery

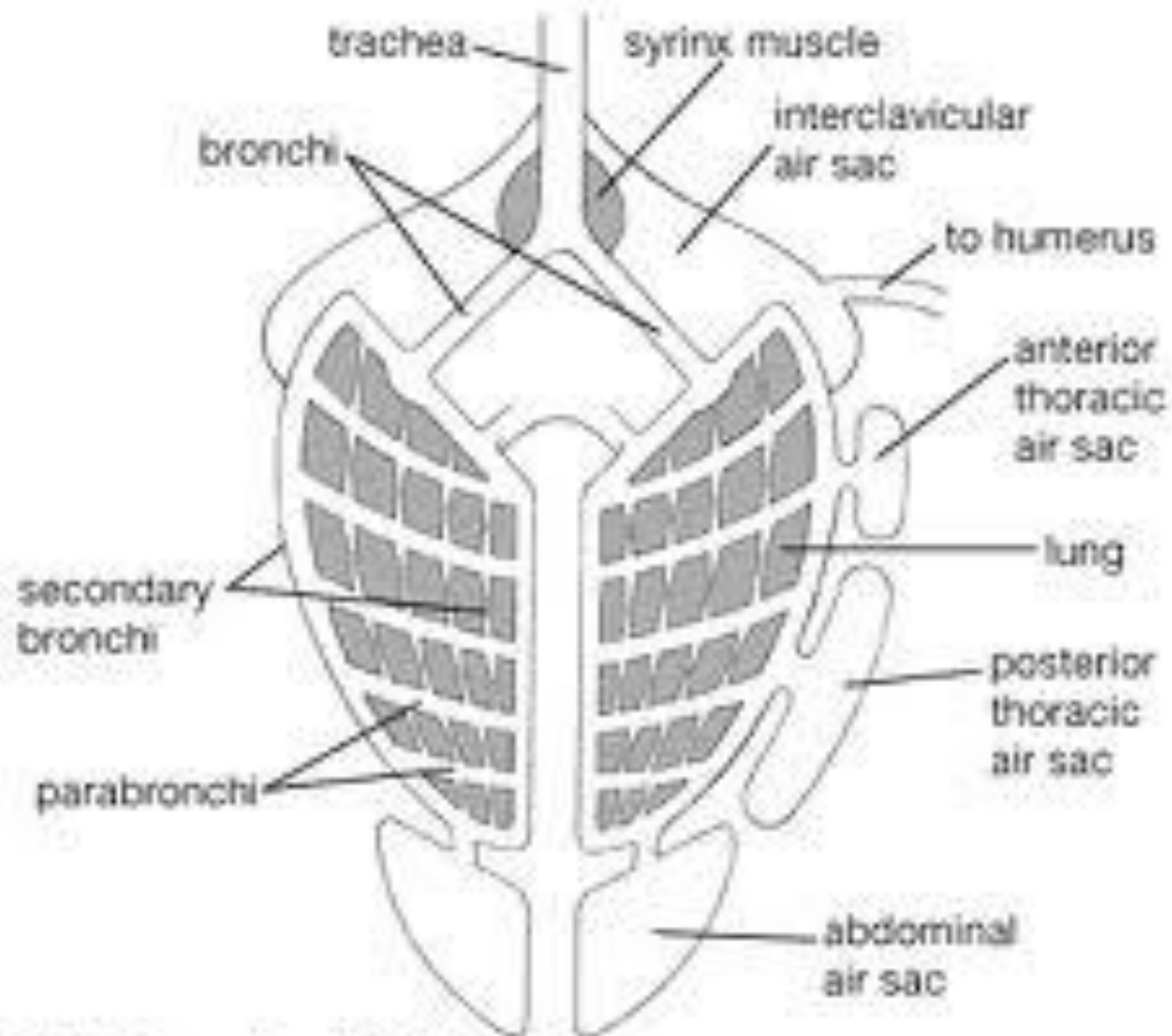
Pulmonary veins

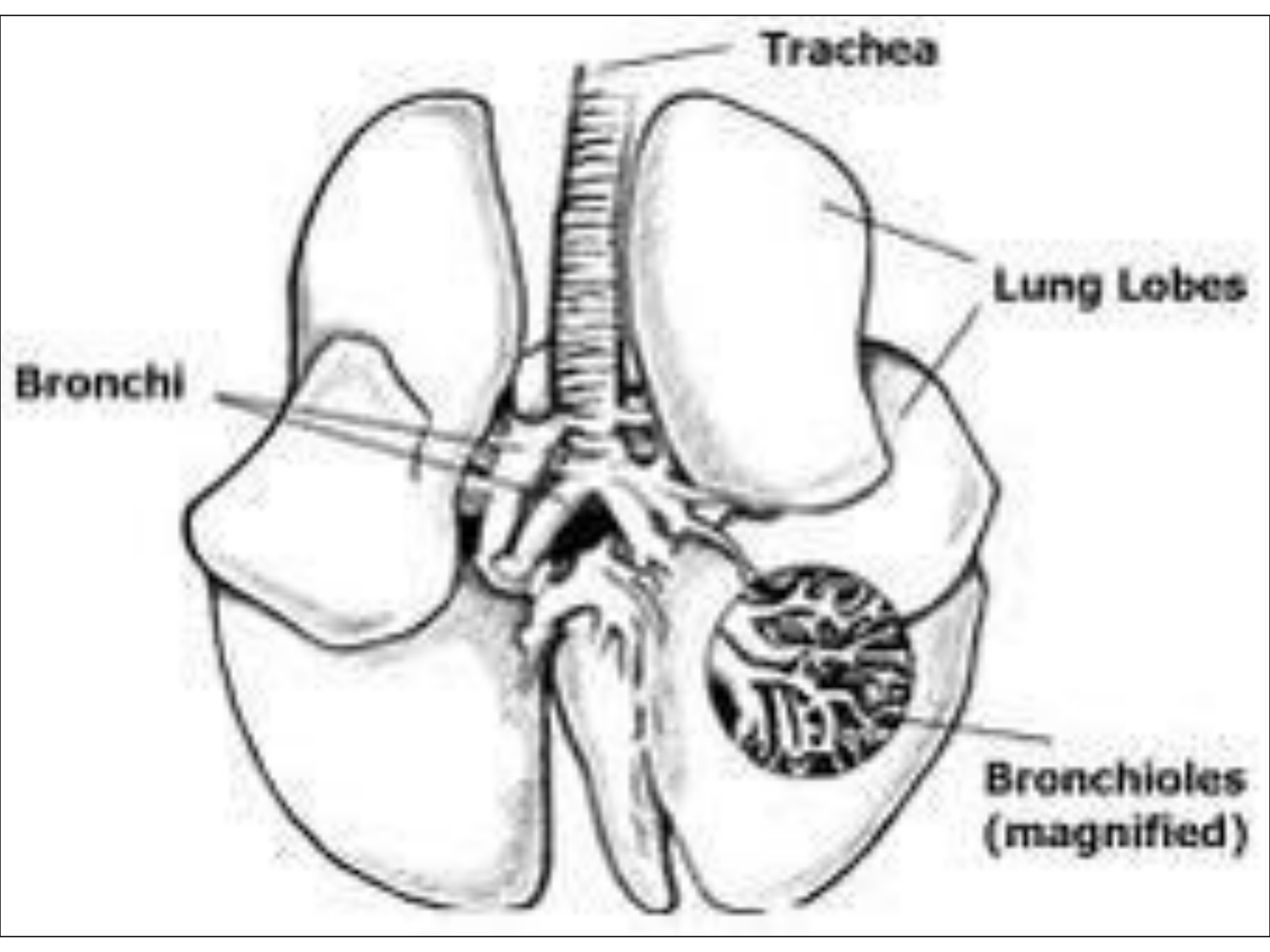


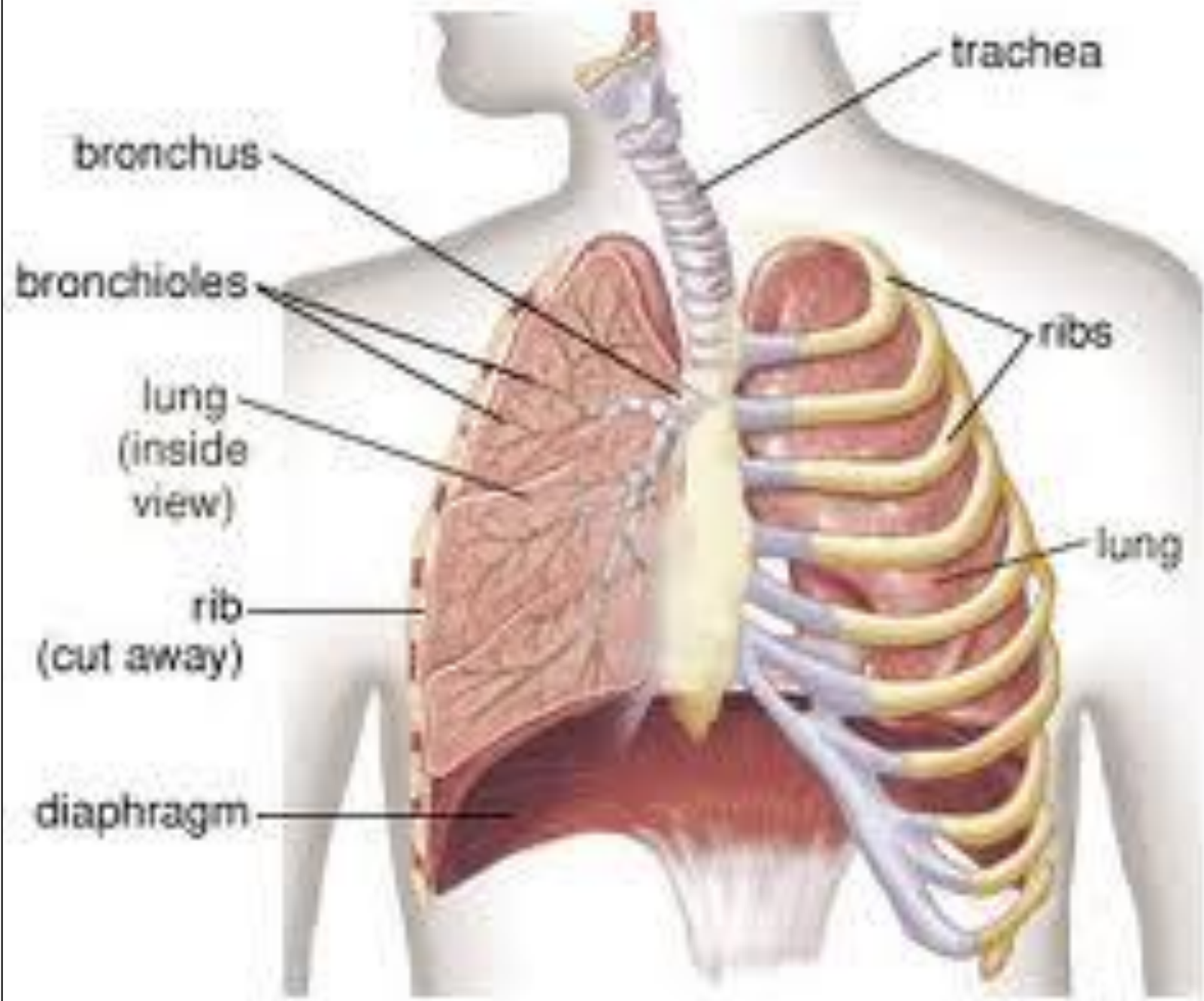


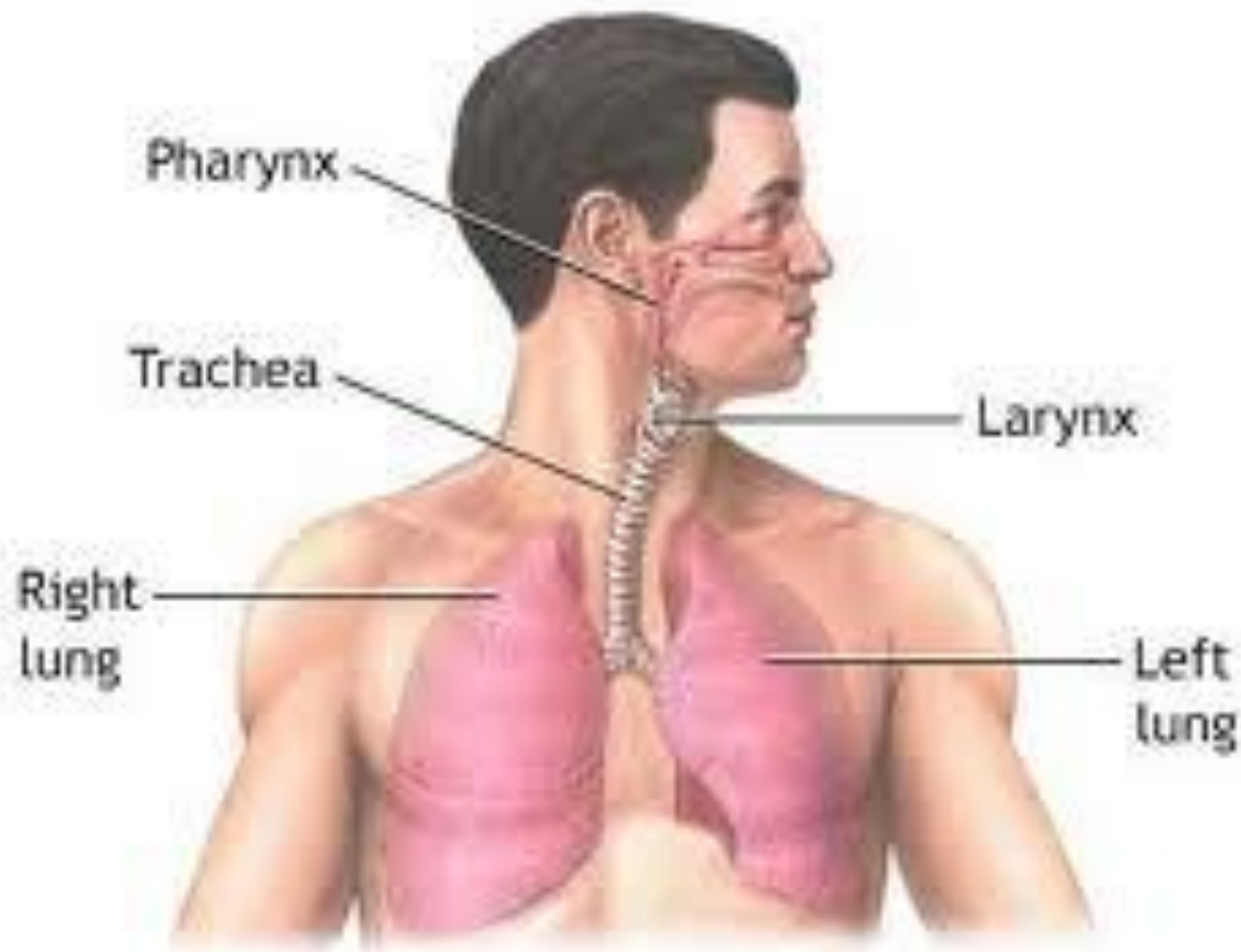


Respiratory Organs as Contained Inside the Rib Cage

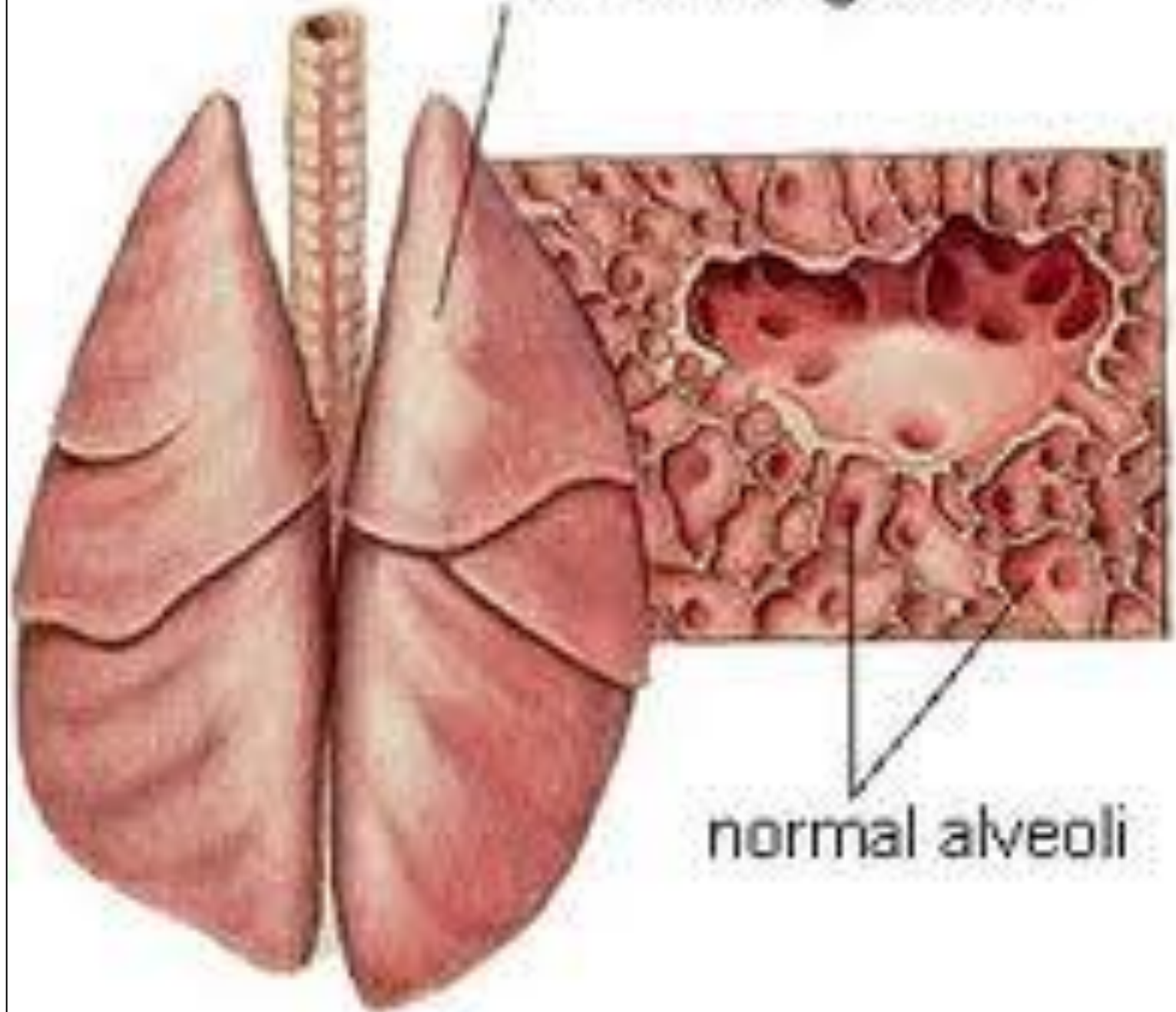








normal lung tissue



normal alveoli

Windpipe (trachea)

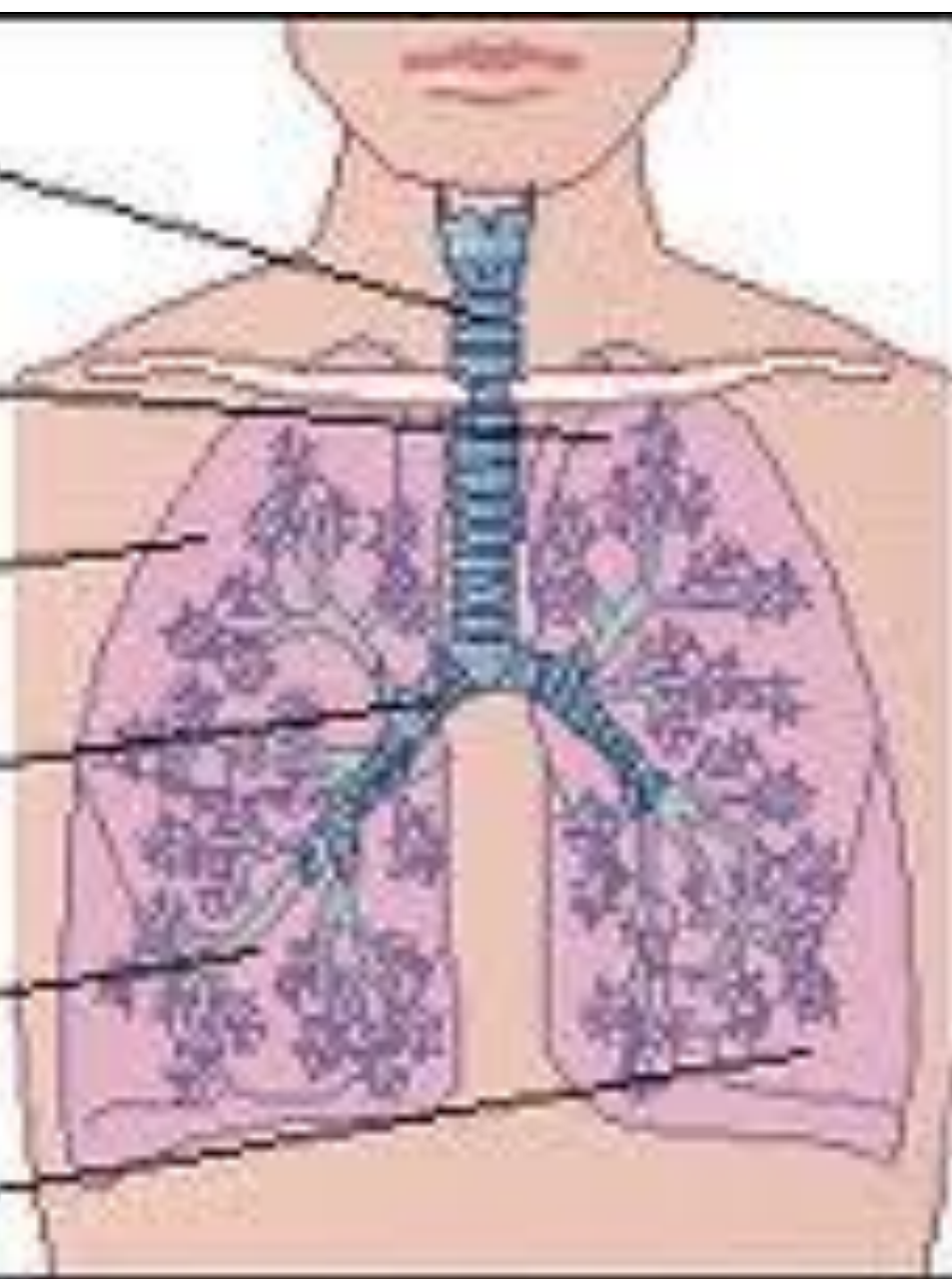
Left upper lobe

Right upper lobe

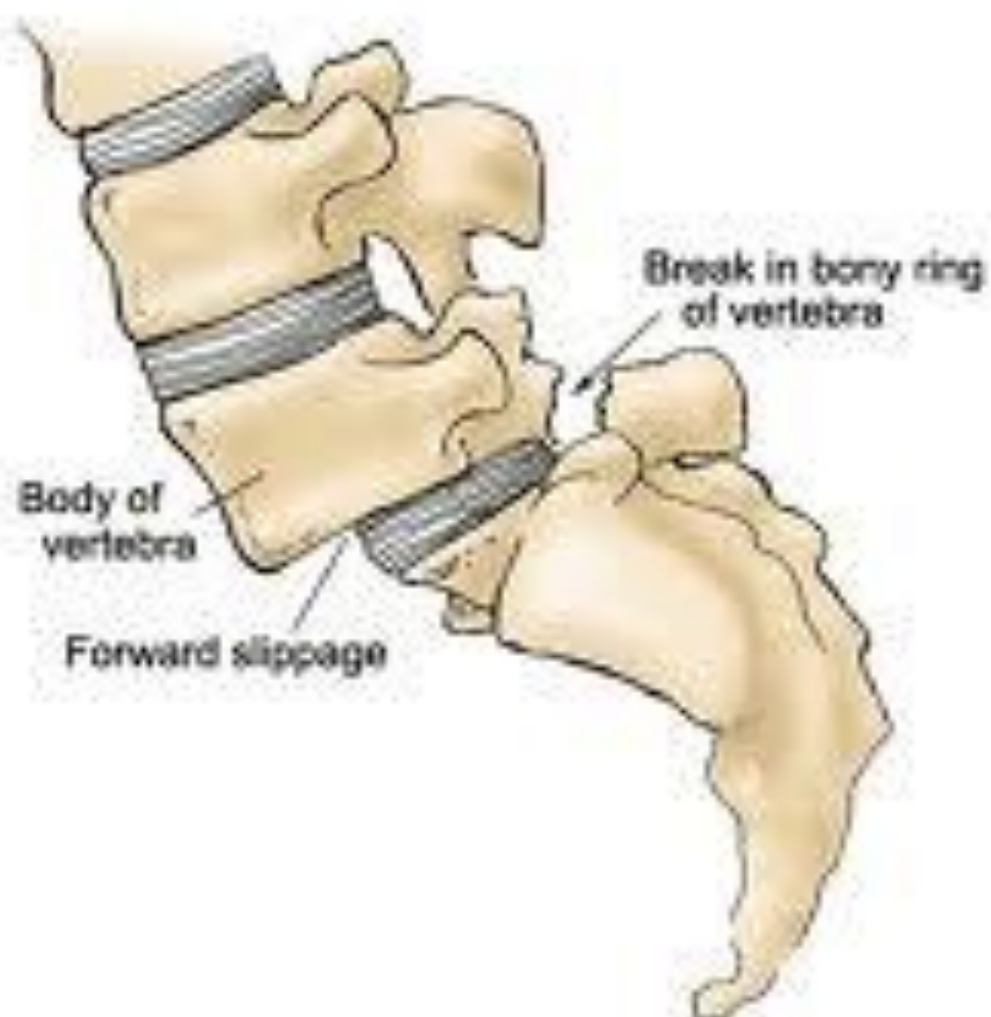
Right bronchus

Right middle lobe

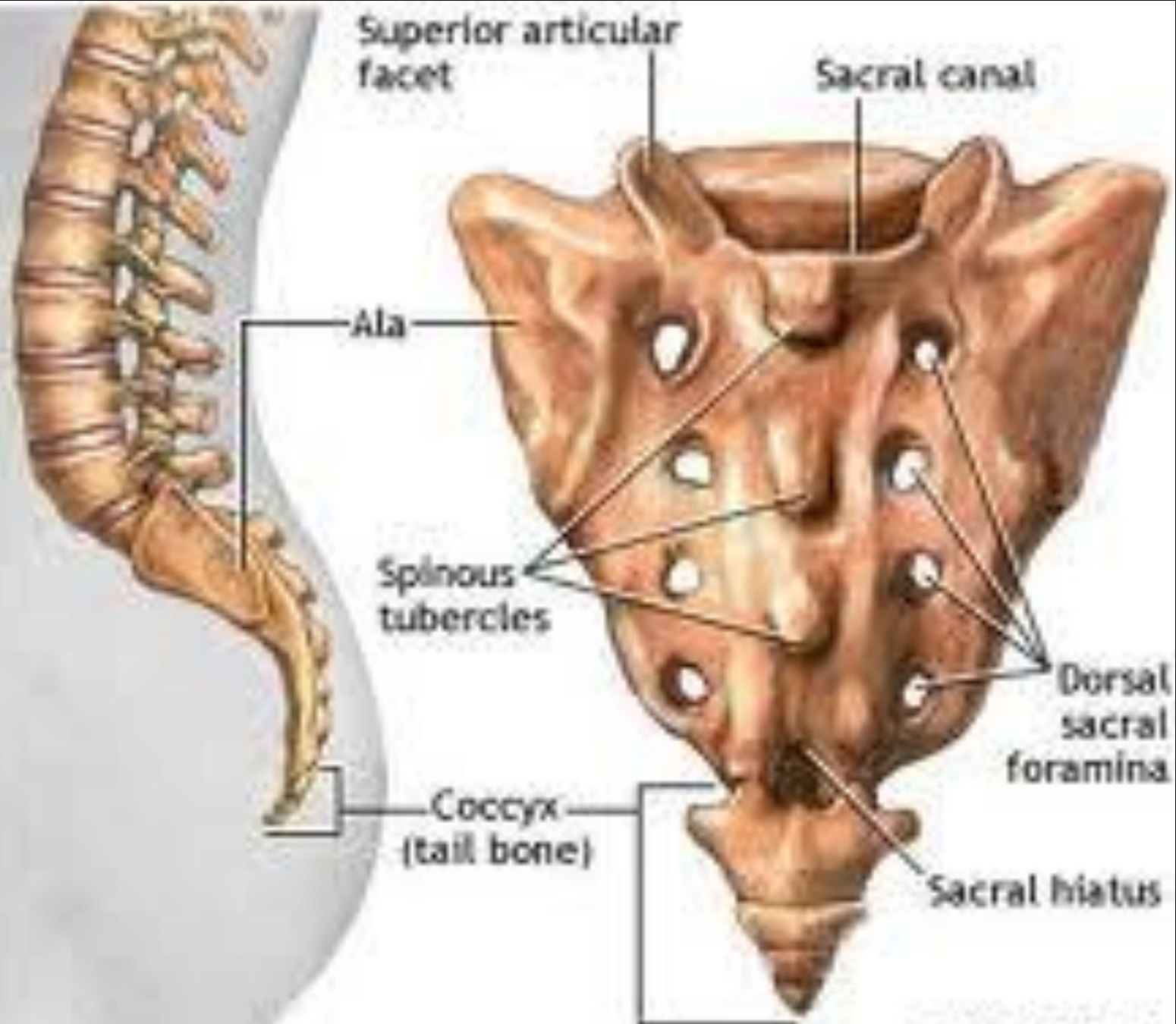
Left lower lobe

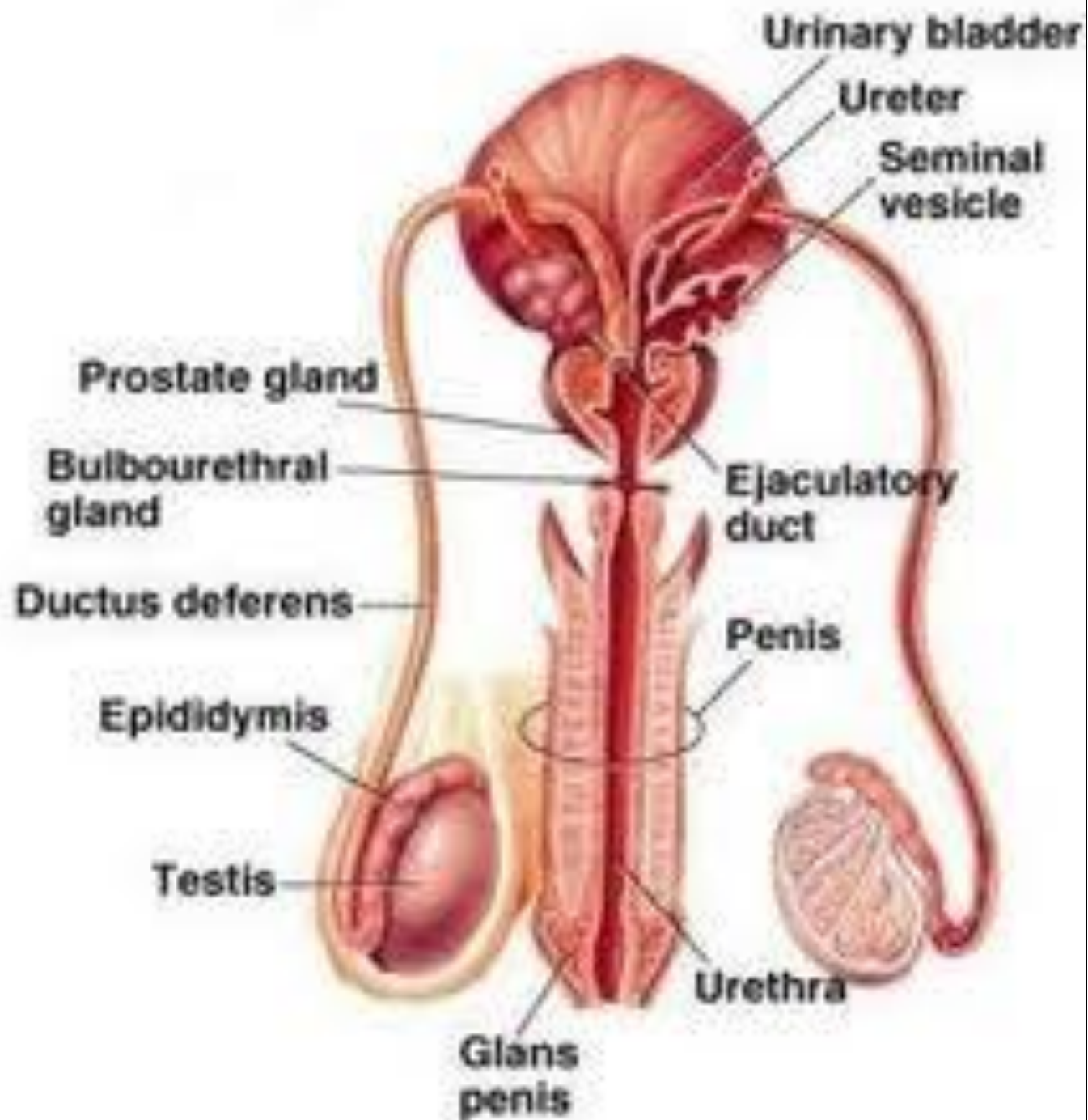


Spondylolisthesis



Side View of Low Backbone







Poison oak



Poison sumac

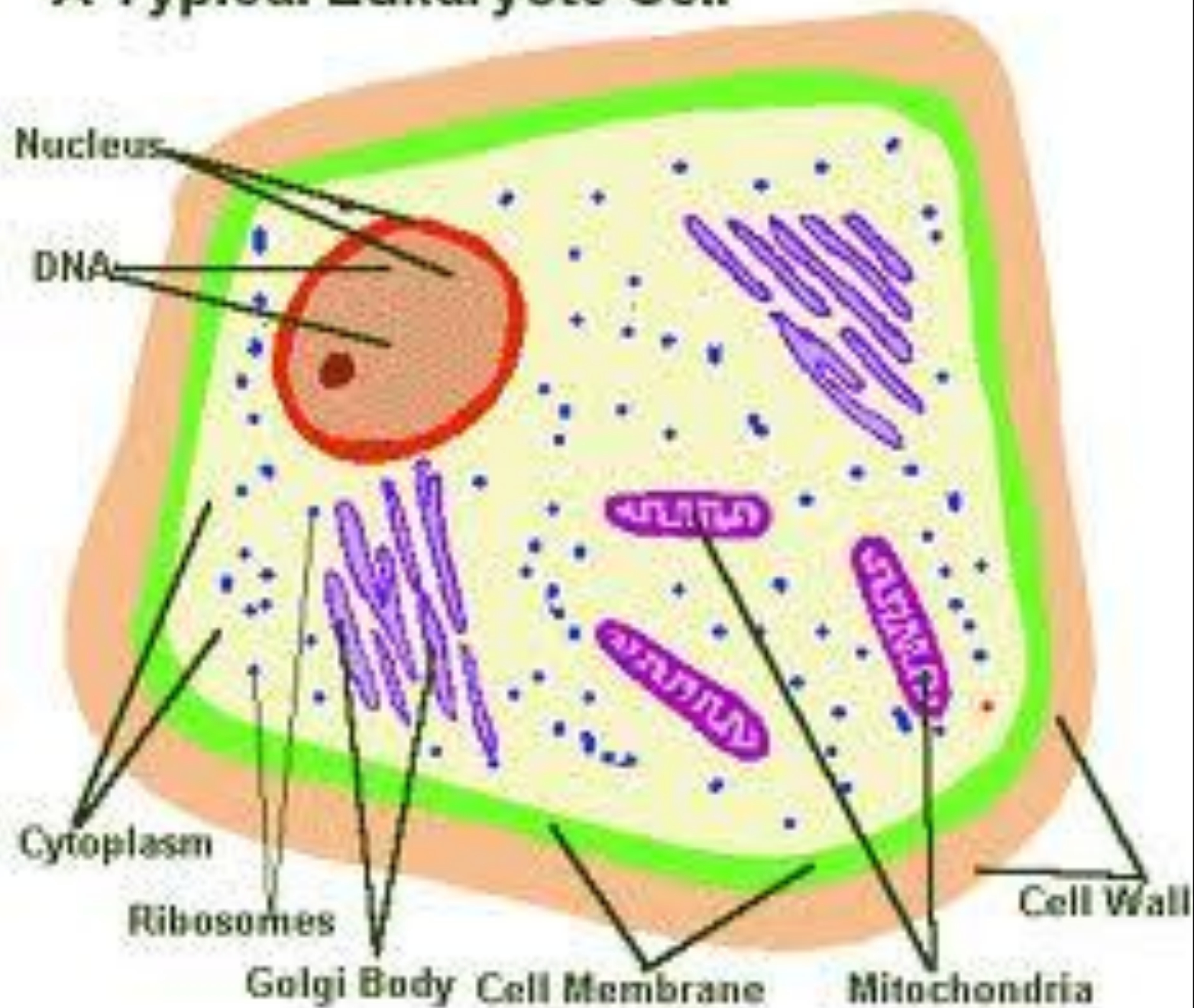


Poison ivy

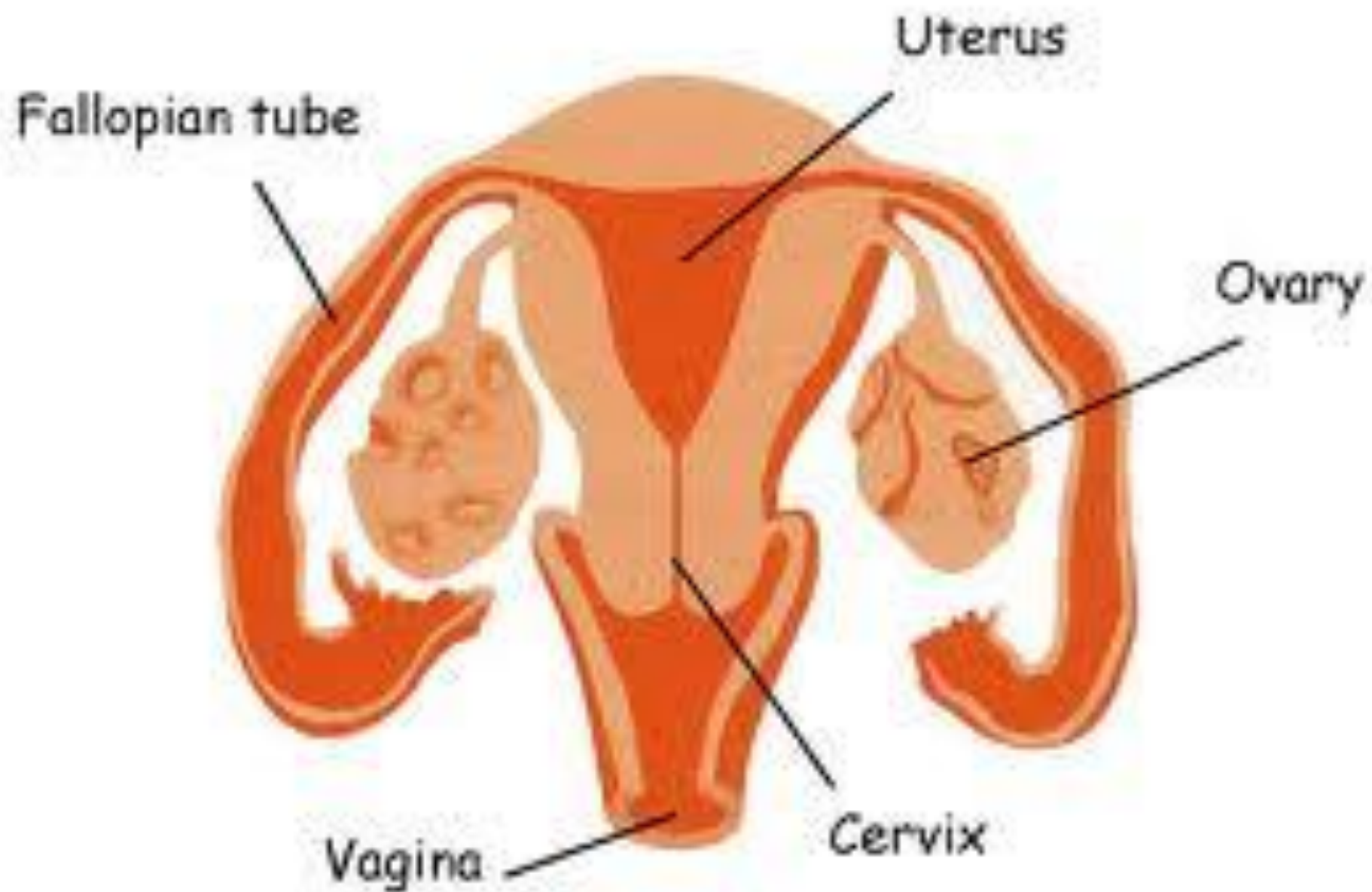




A Typical Eukaryote Cell

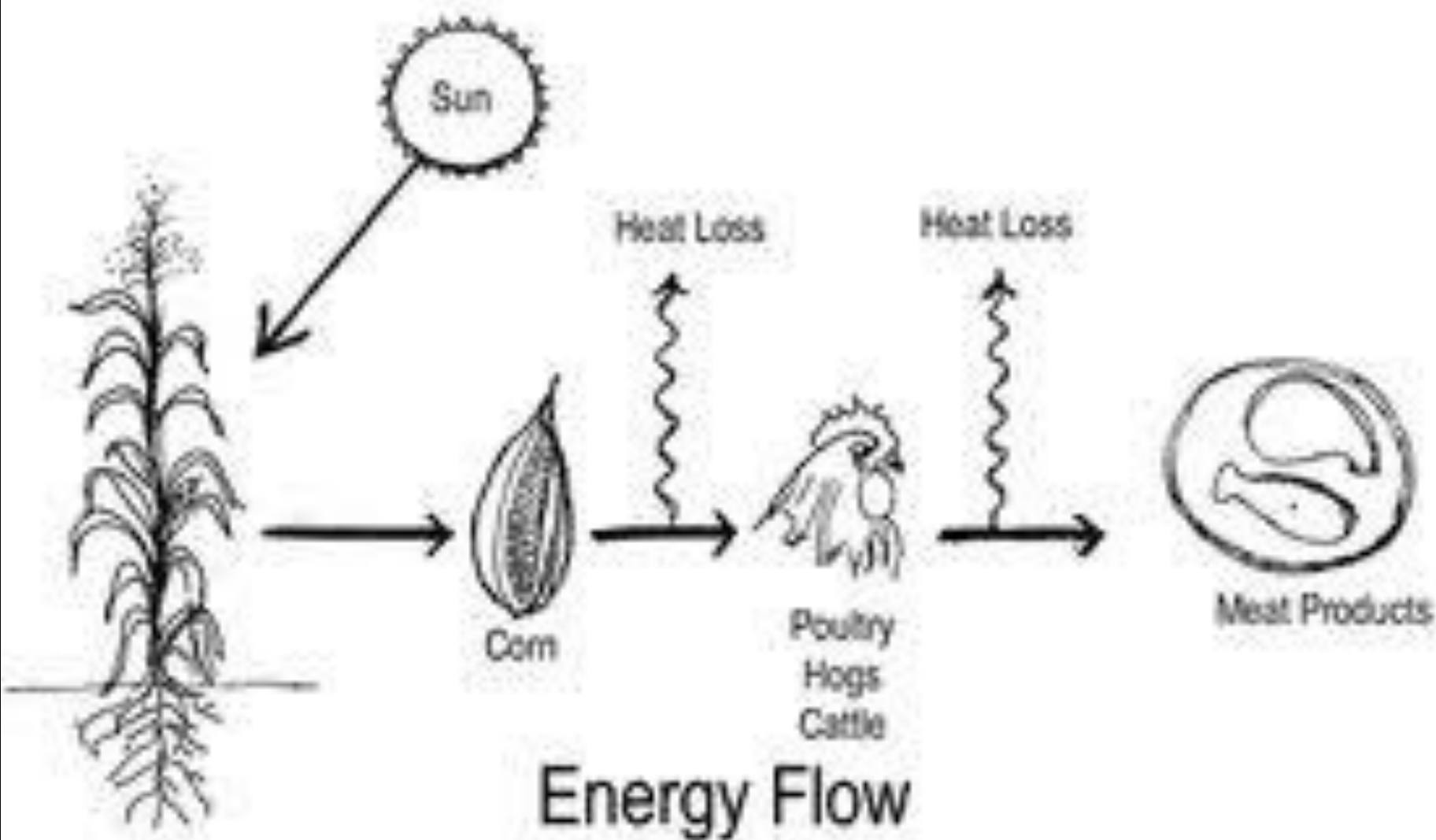


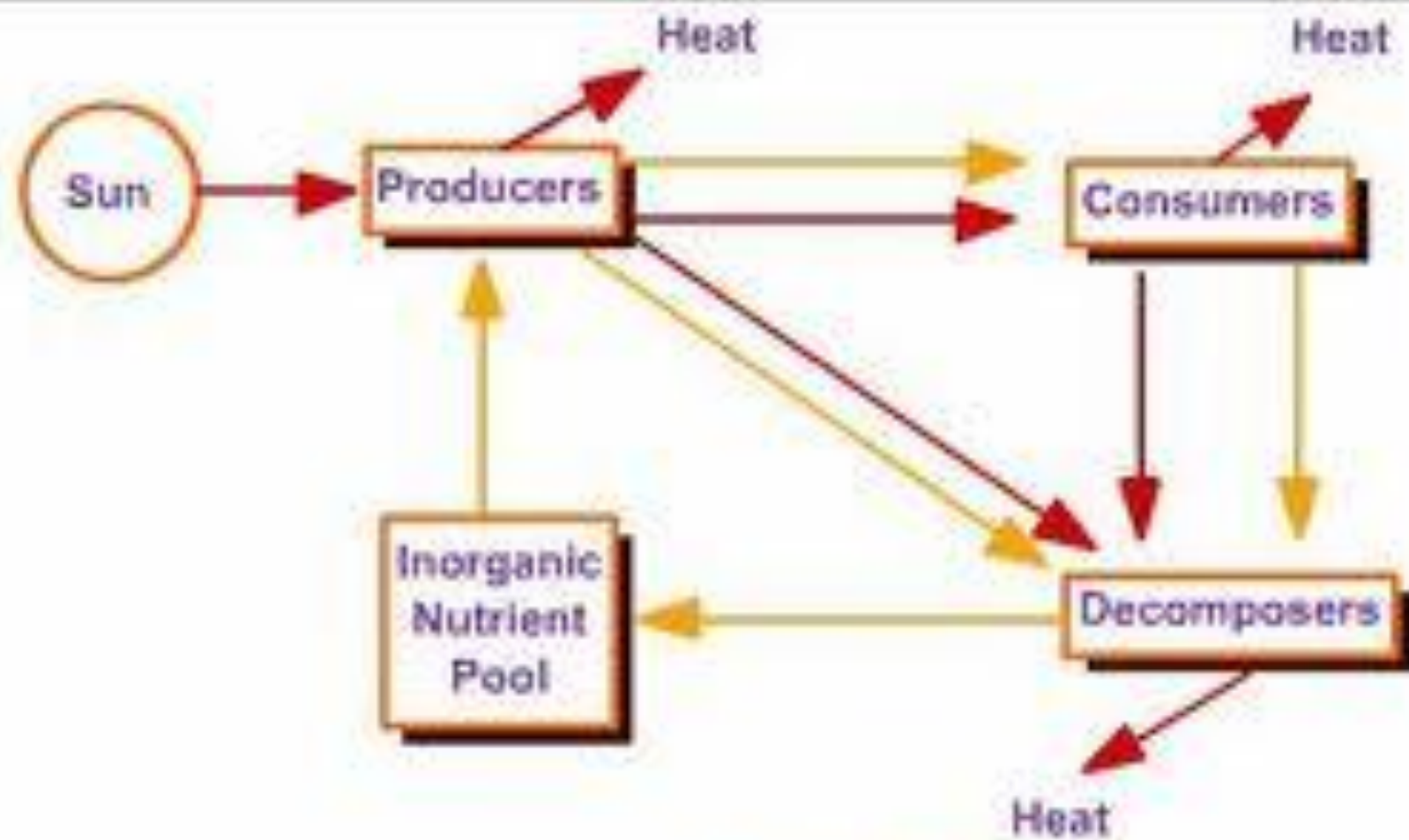




Medicinal Plants

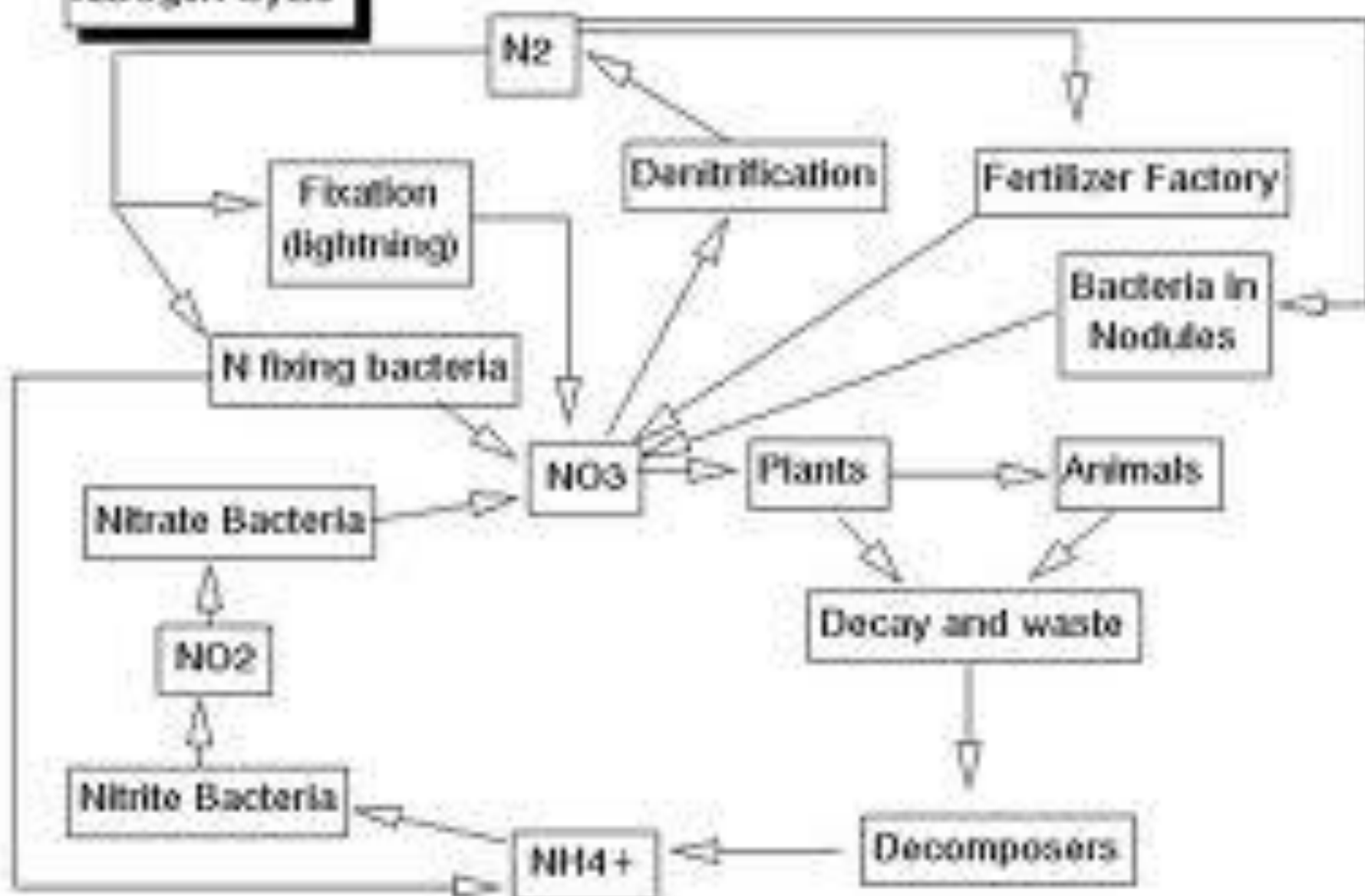






Energy Flow

Nitrogen Cycle



THE NITROGEN CYCLE

Fish waste

Nitrate Buildup

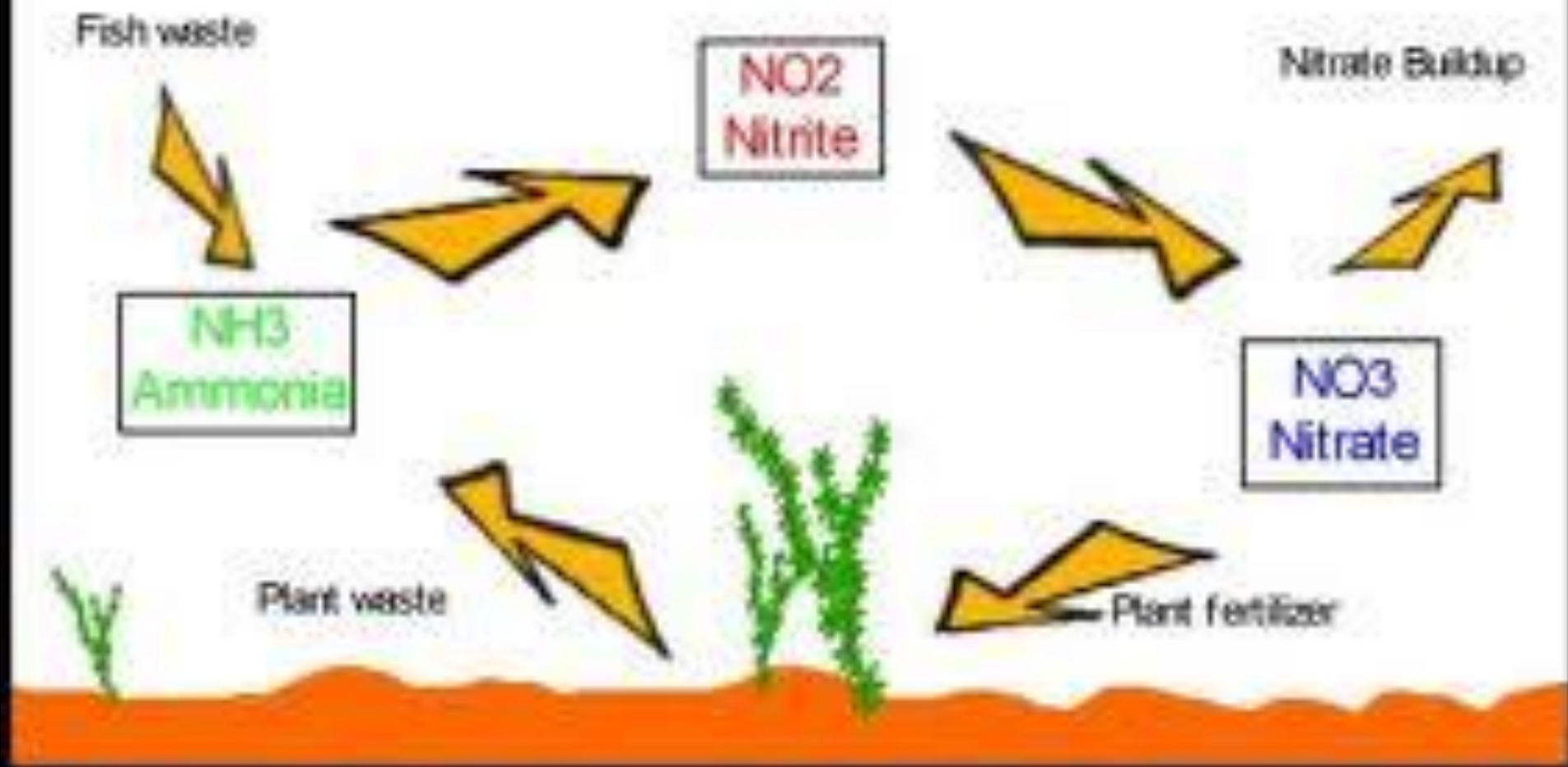
NO_2
Nitrite

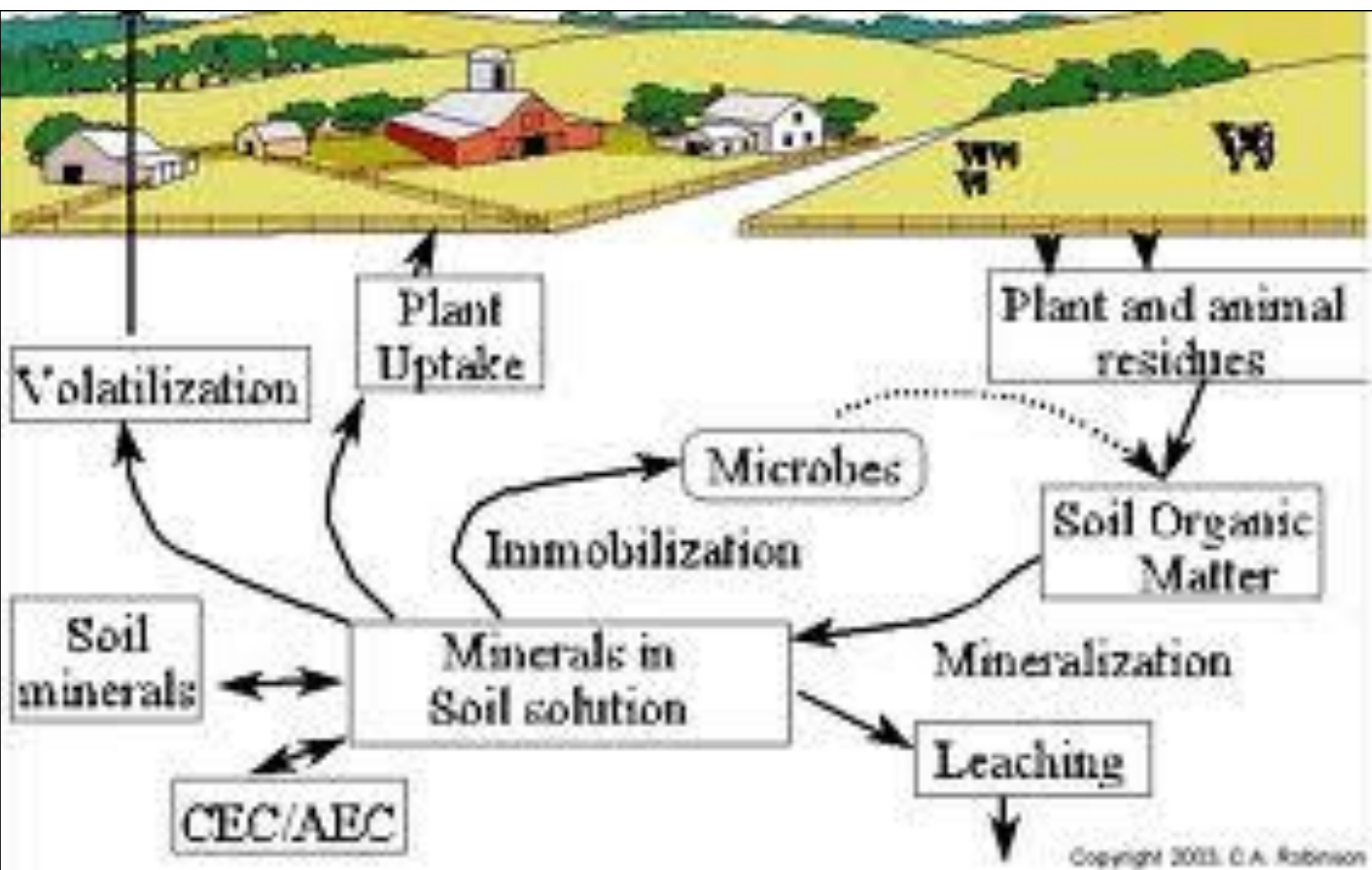
NO_3
Nitrate

NH_3
Ammonia

Plant waste

Plant fertilizer







nitrogen in the
atmosphere

nitrogen in animal proteins



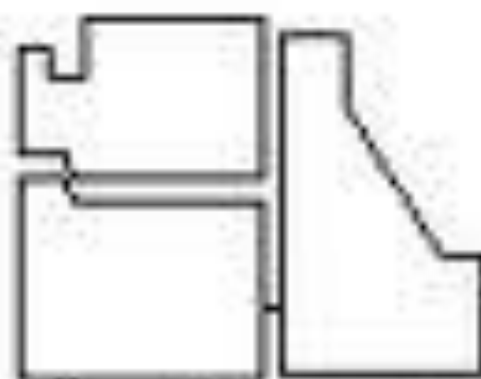
nitrogen
in plant
proteins



nitrogen in decaying matter and waste



bacteria "fix" nitrogen for use by plants



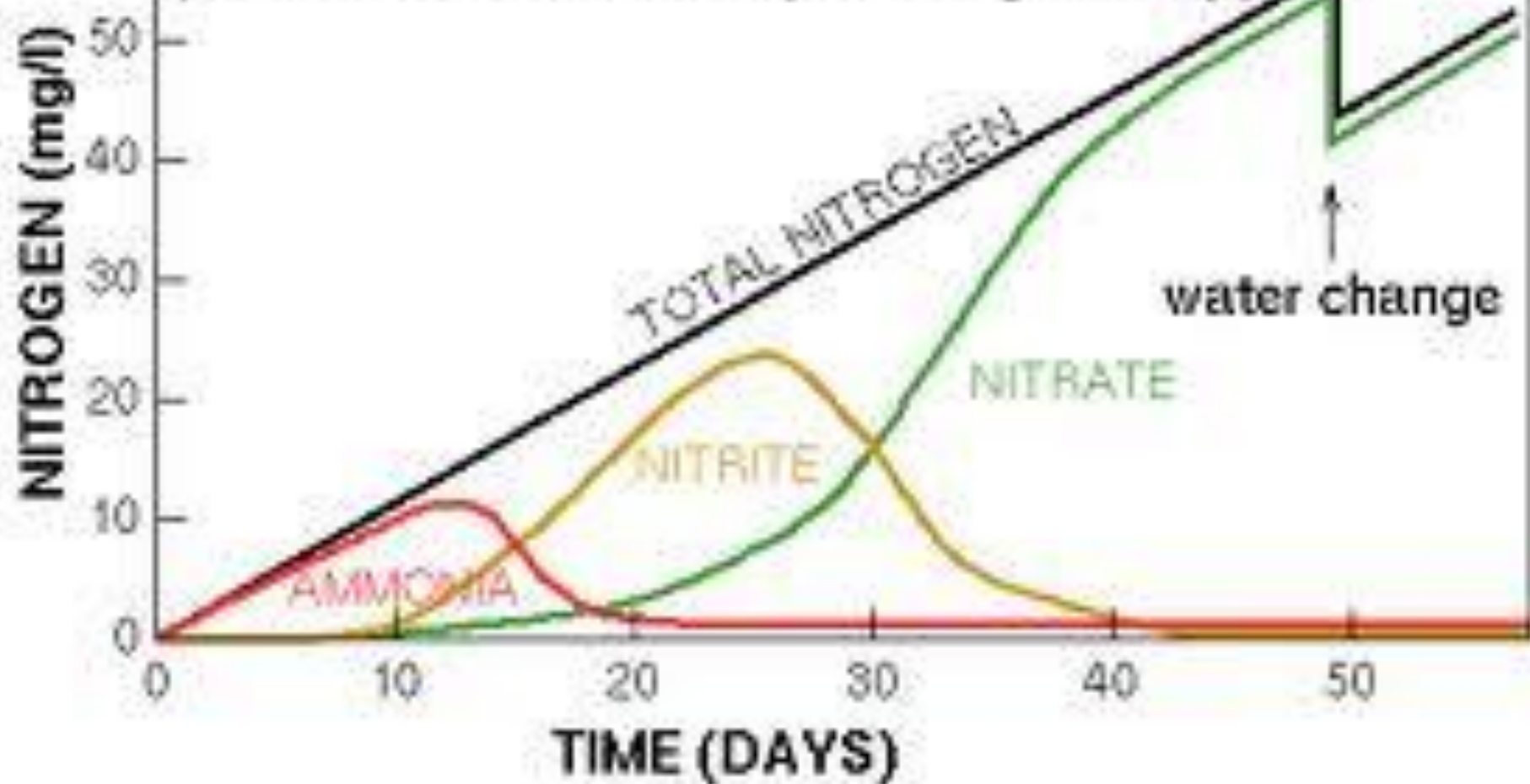
THE NITROGEN CYCLE

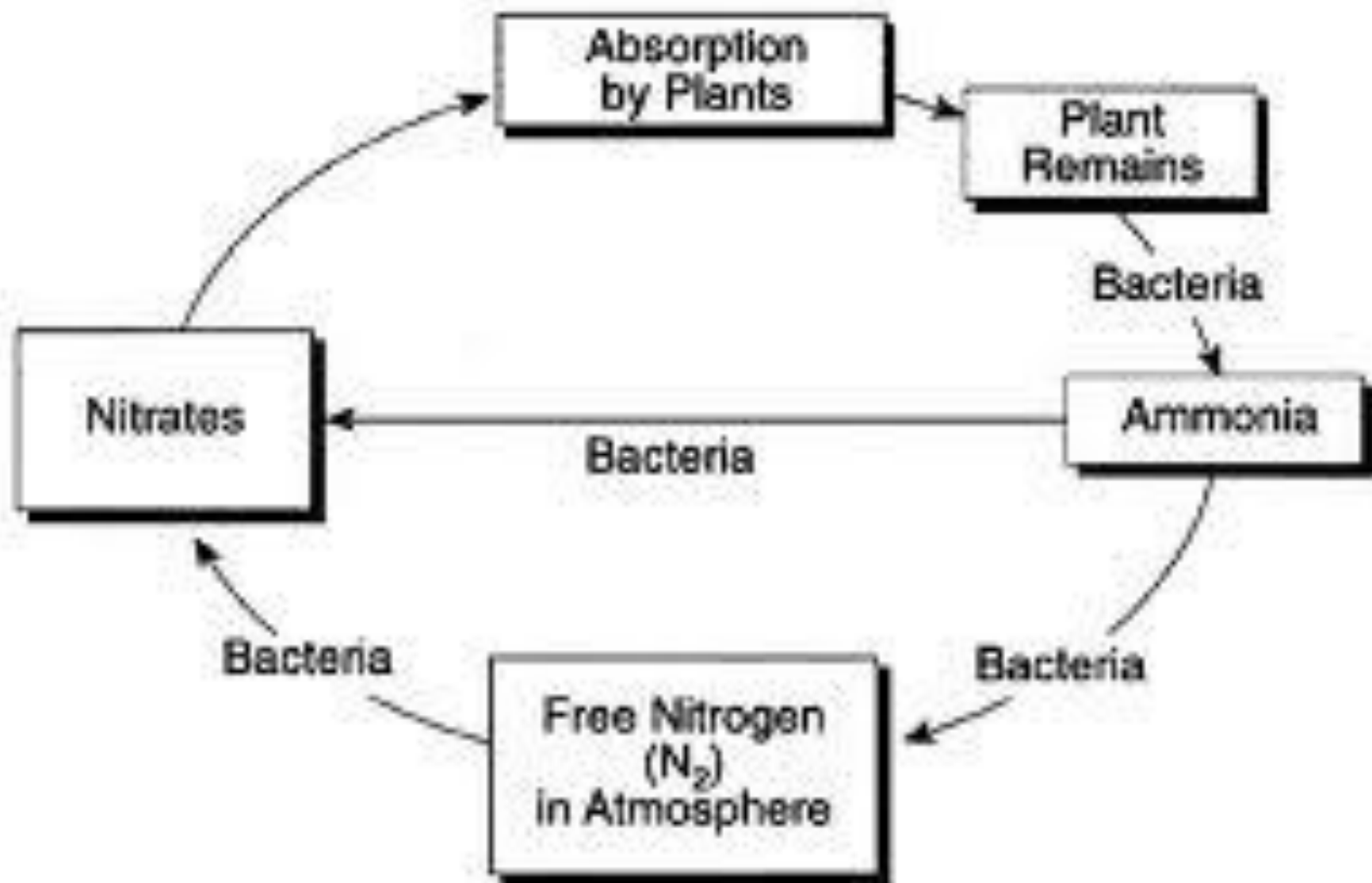
- ▶ Complex cycle of chemical pathways that trace N transformations and movement in an ecosystem
- ▶ Problems occur when some forms of N leak from the system



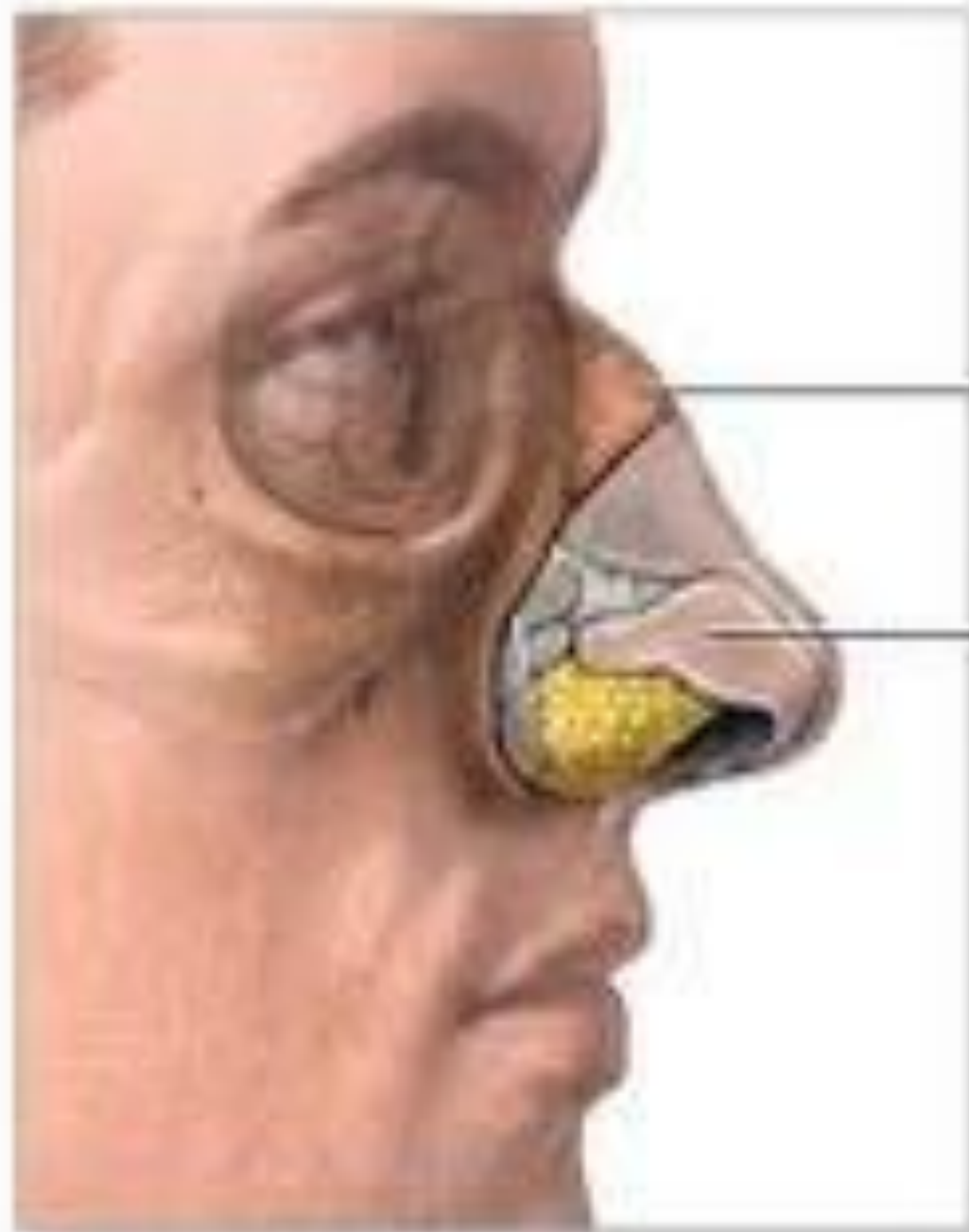
Cycling of a New Tank (after Spotte)

(numbers are for illustration; your mileage will vary!)



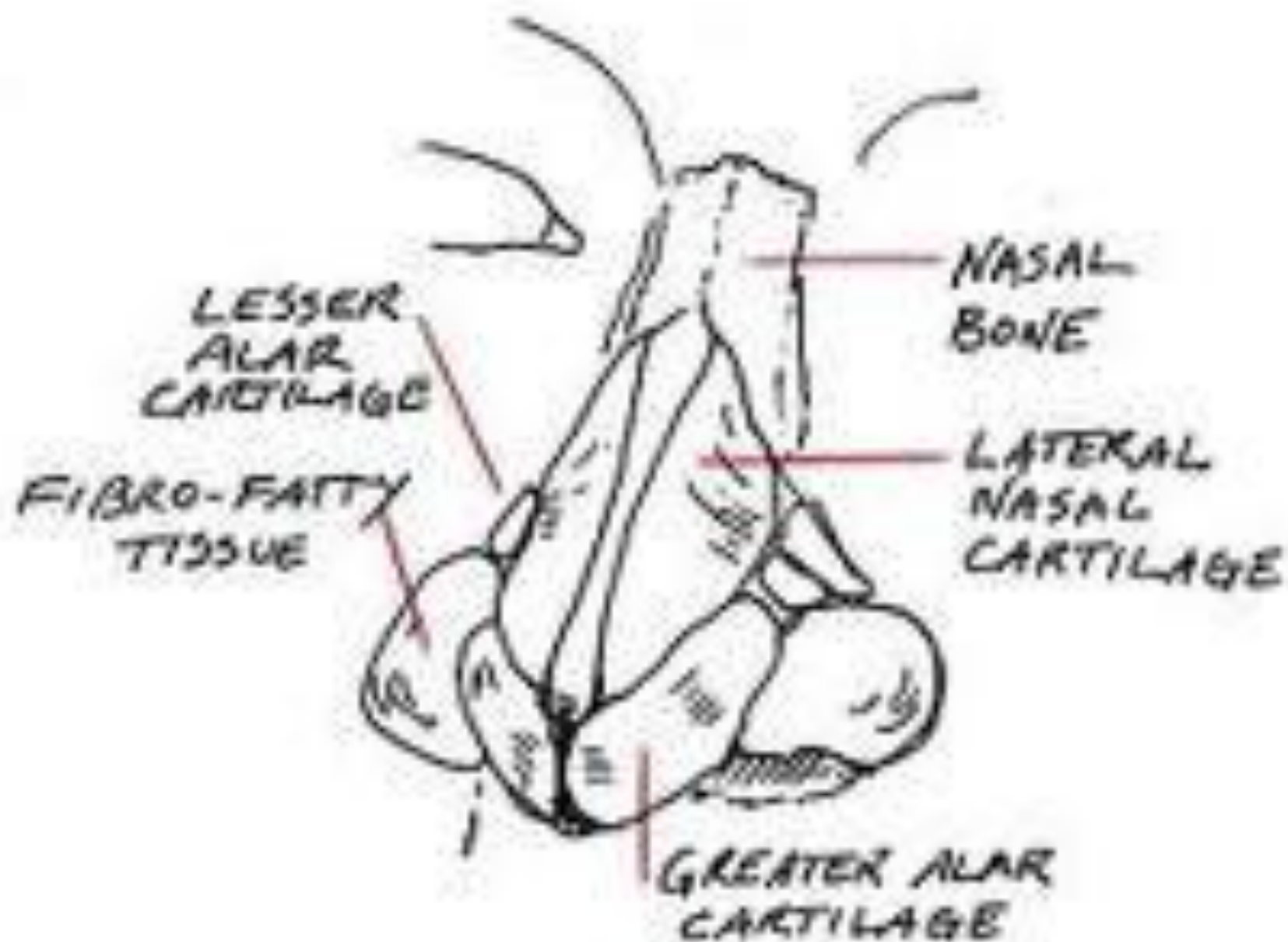






Dorsal hump

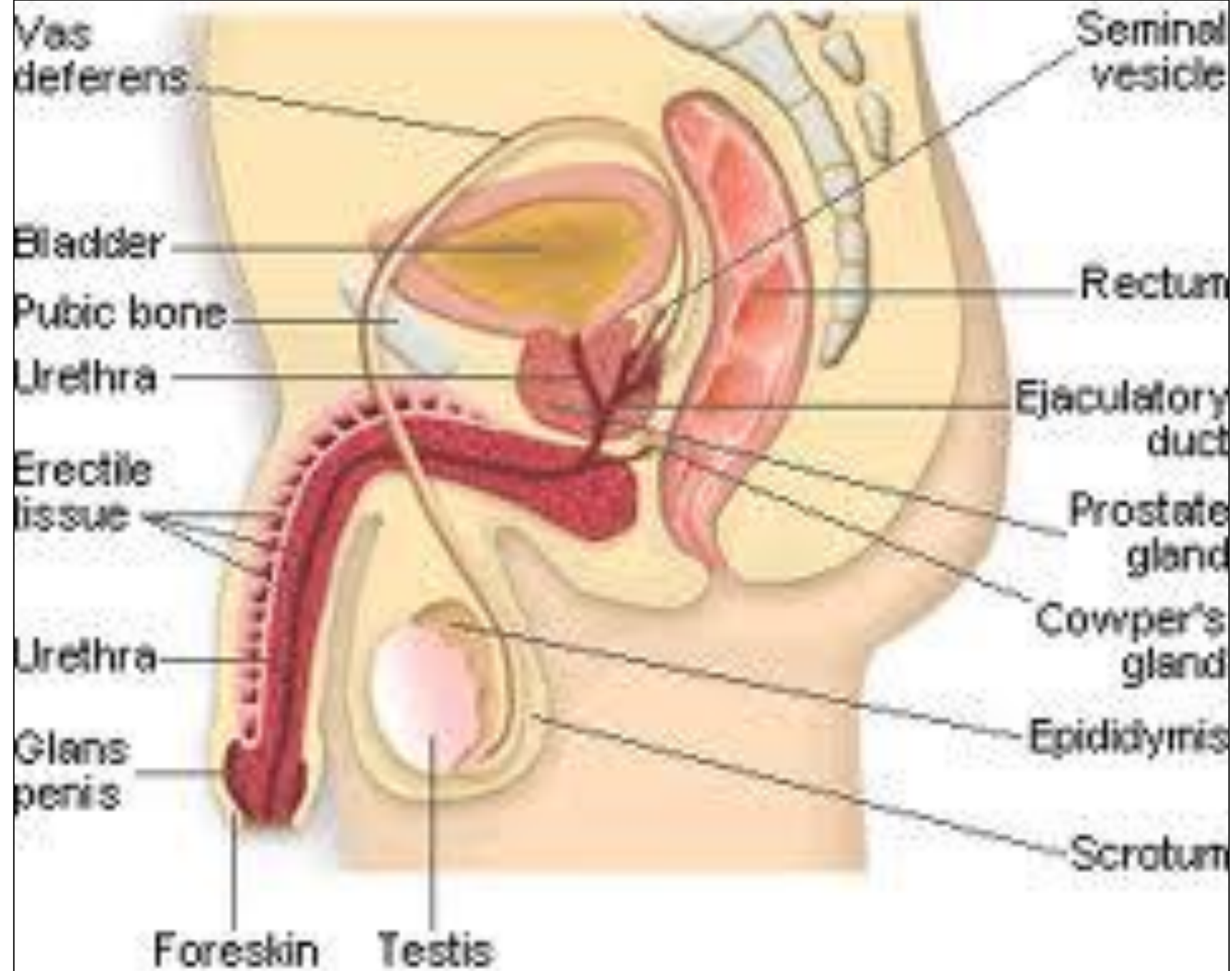
Cartilage



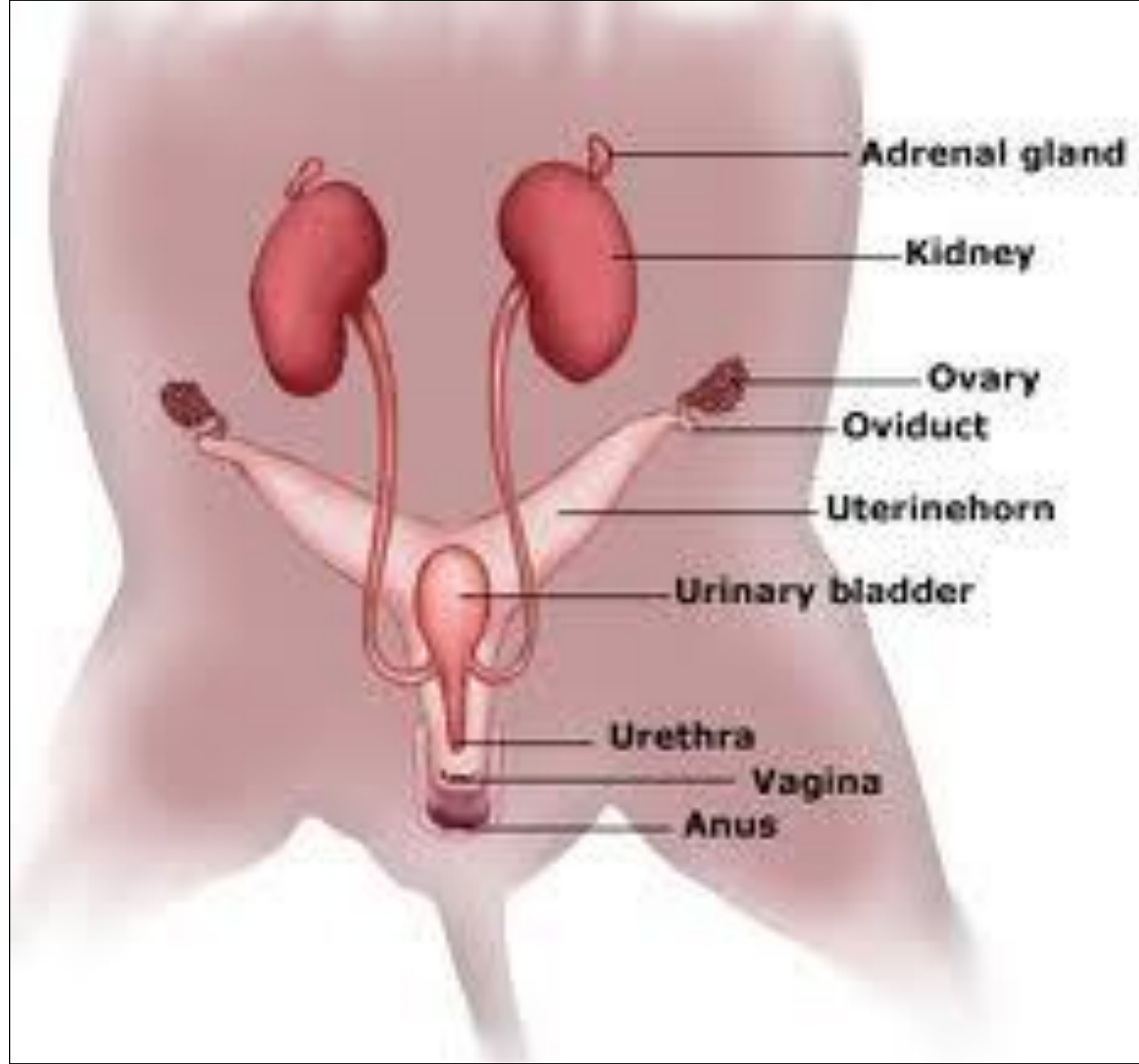












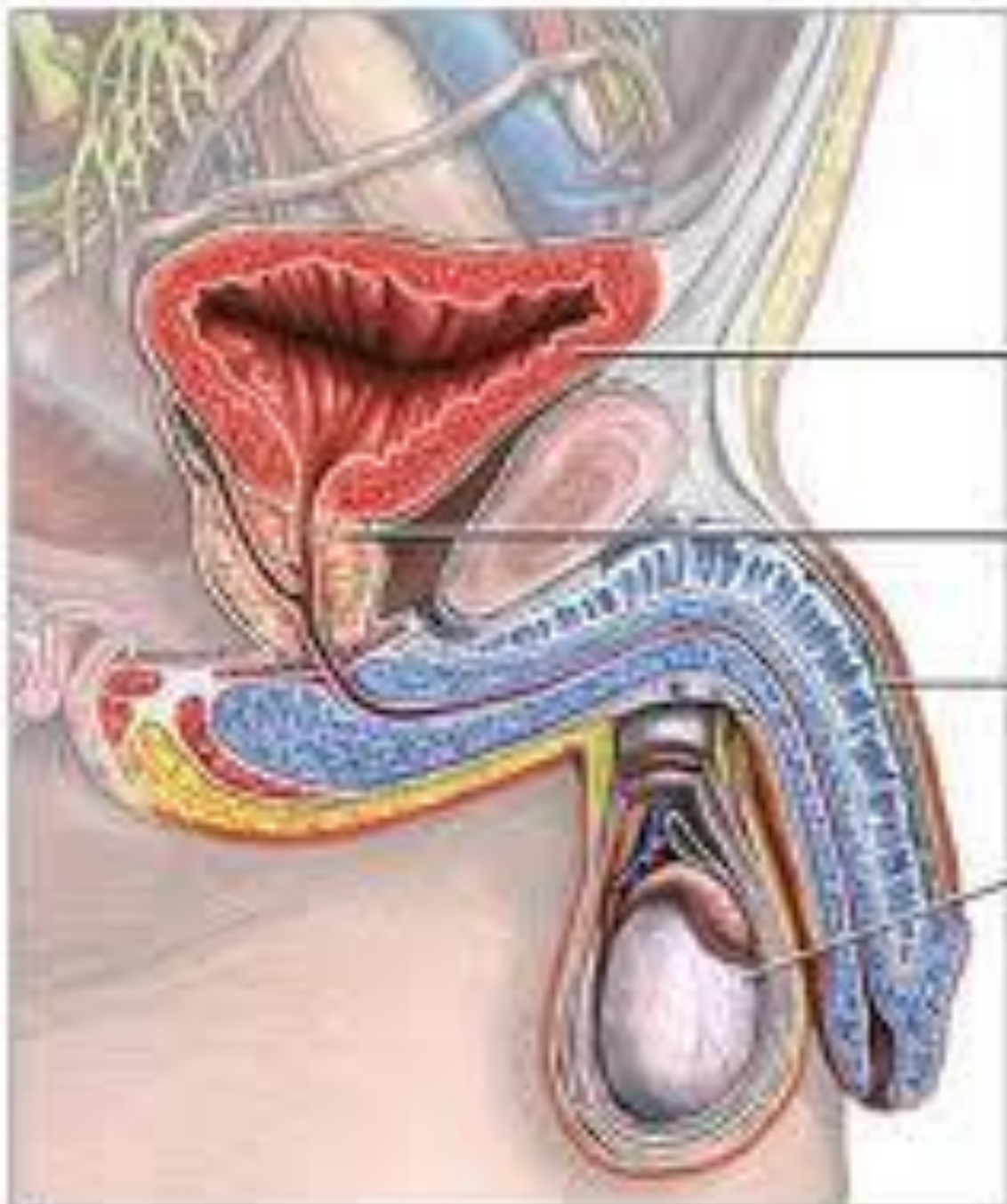
Young male reproductive system

Bladder

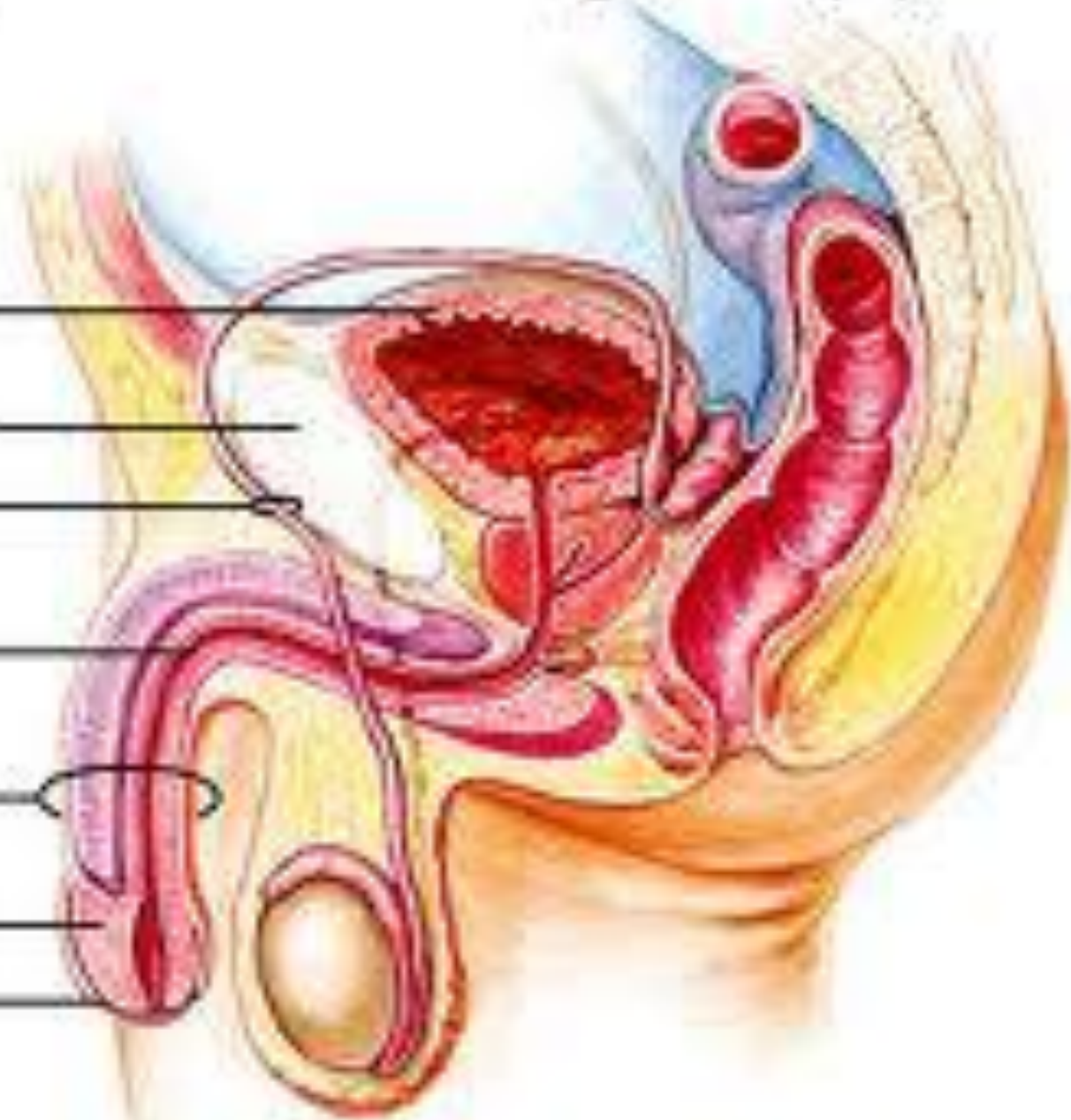
Prostate

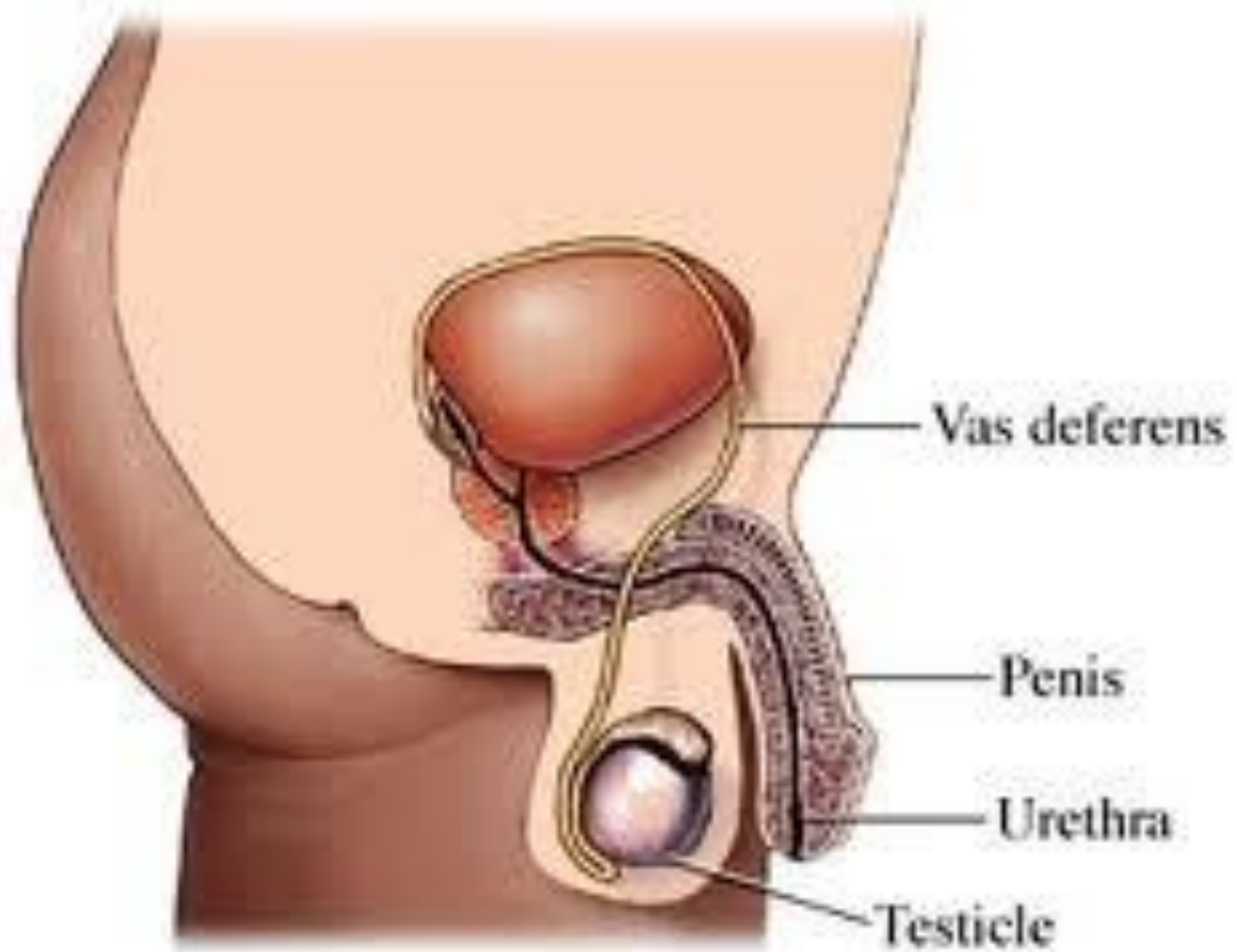
Penis

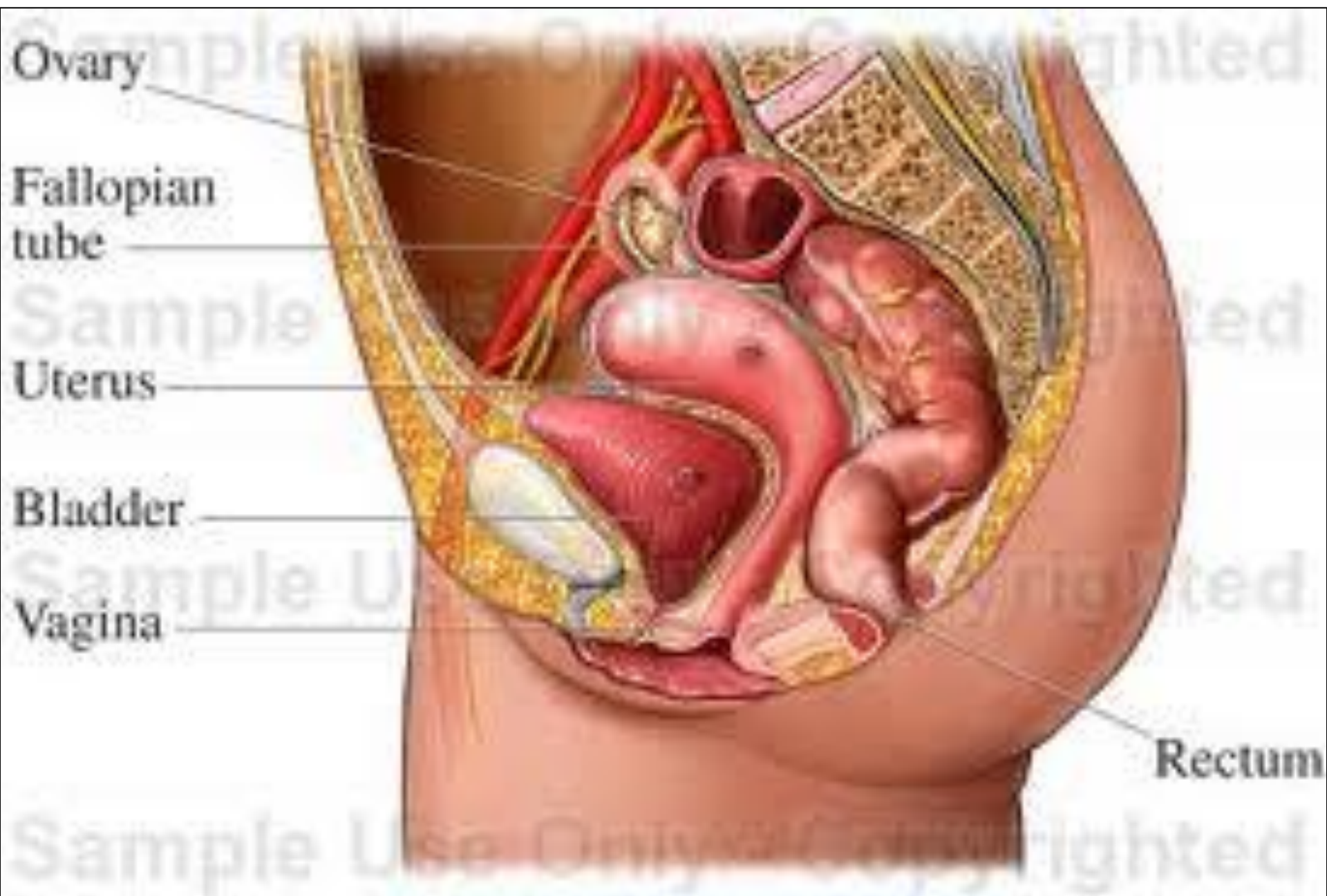
Testicle



Male Reproductive Organs (1)

- 
- This anatomical diagram illustrates the male reproductive and urinary systems in a sagittal cross-section. The urinary bladder is shown as a large, sac-like structure. The vas deferens is depicted as a thin tube originating from the testis and passing through the inguinal canal. The urethra is shown as a tube that runs through the length of the penis. The penis is shown in a sagittal section, revealing the internal structures. The glans penis is the tip of the penis, and the prepuce (foreskin) is the skin covering the glans. The symphysis pubis is the joint between the two pubic bones.
- Urinary bladder
 - Symphysis pubis
 - Vas deferens
 - Urethra
 - Penis
 - Glans penis
 - Prepuce





Ovary

Fallopian
tube

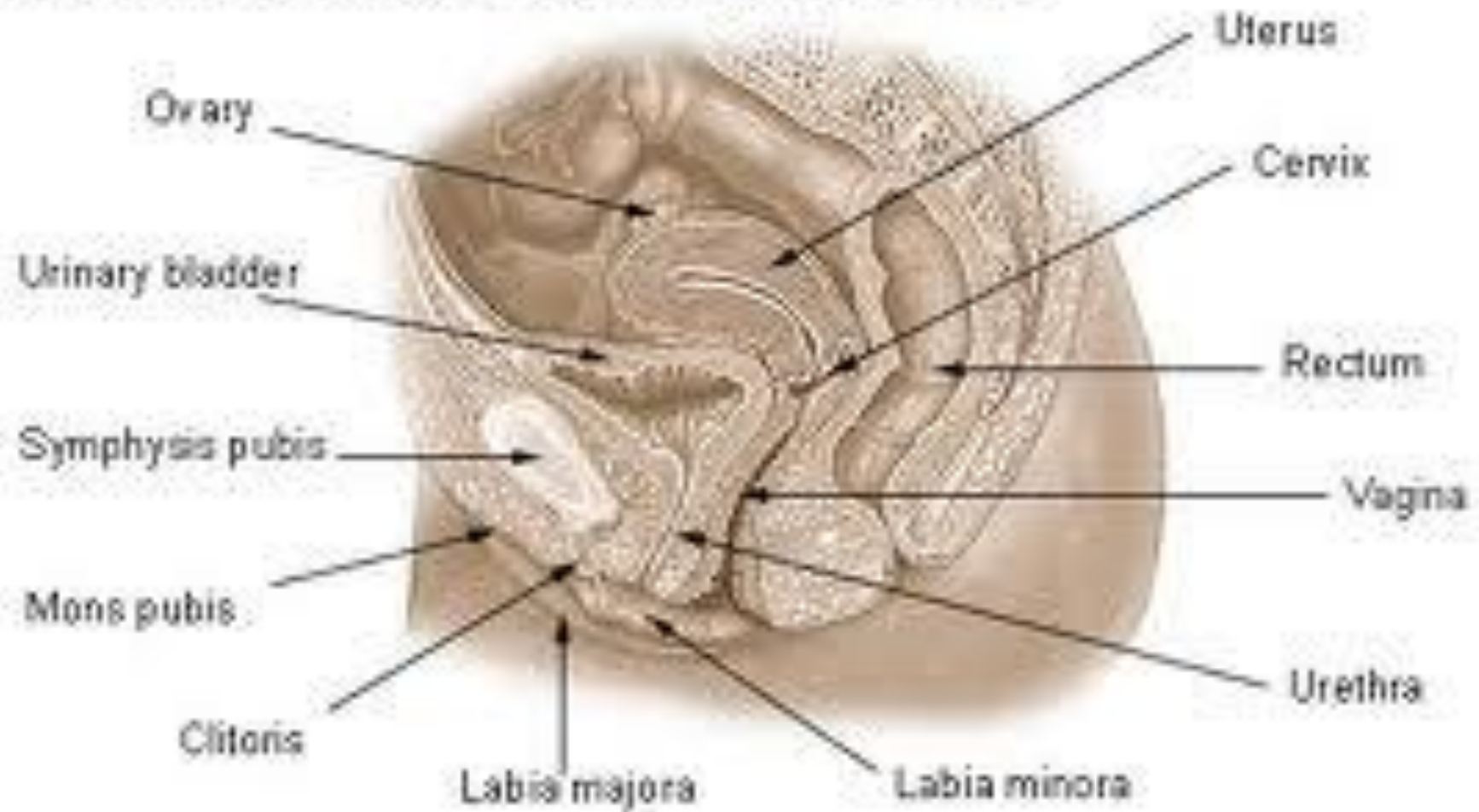
Uterus

Bladder

Vagina

Rectum

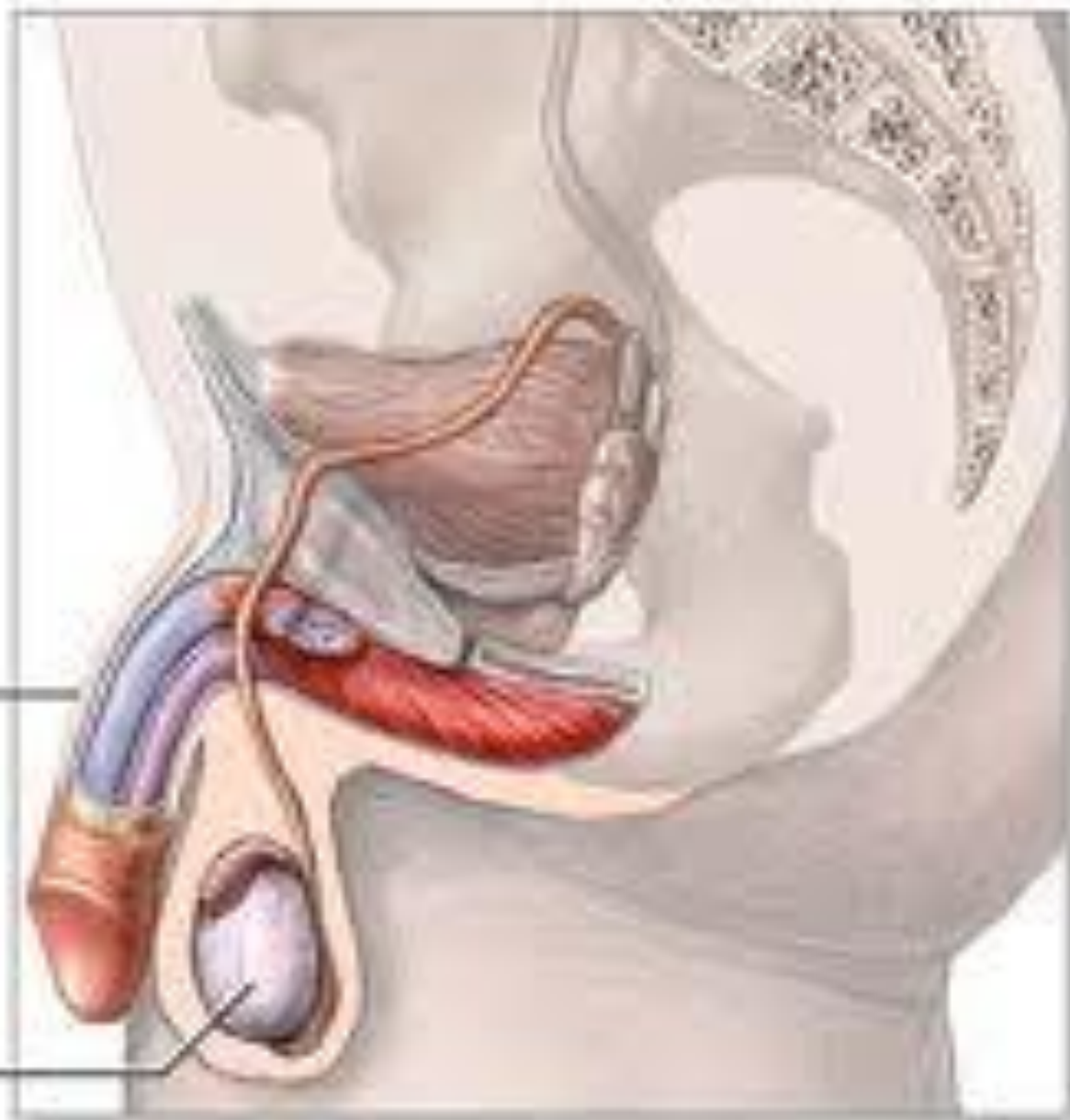
Organs of the Female Reproductive System

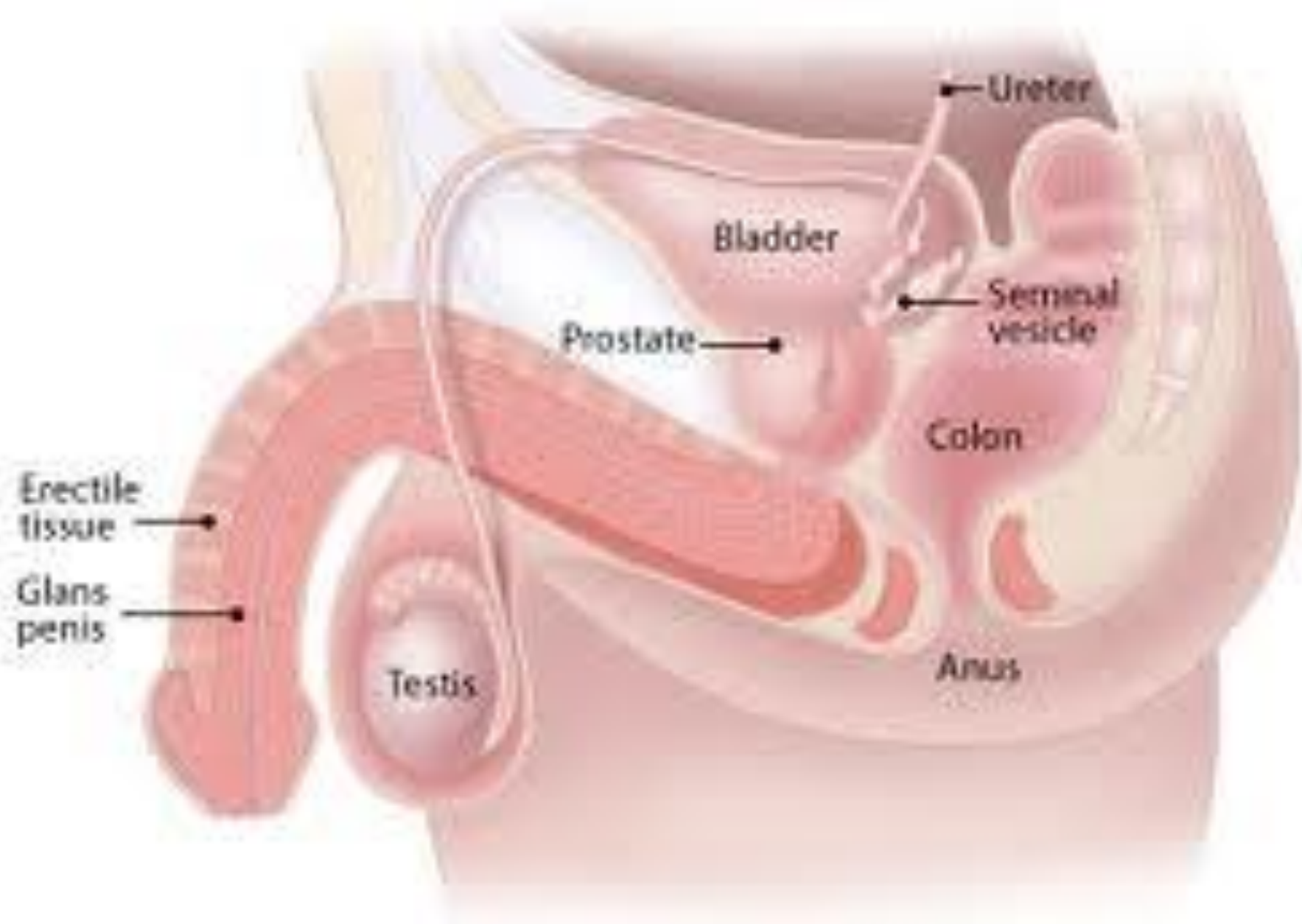




Penis

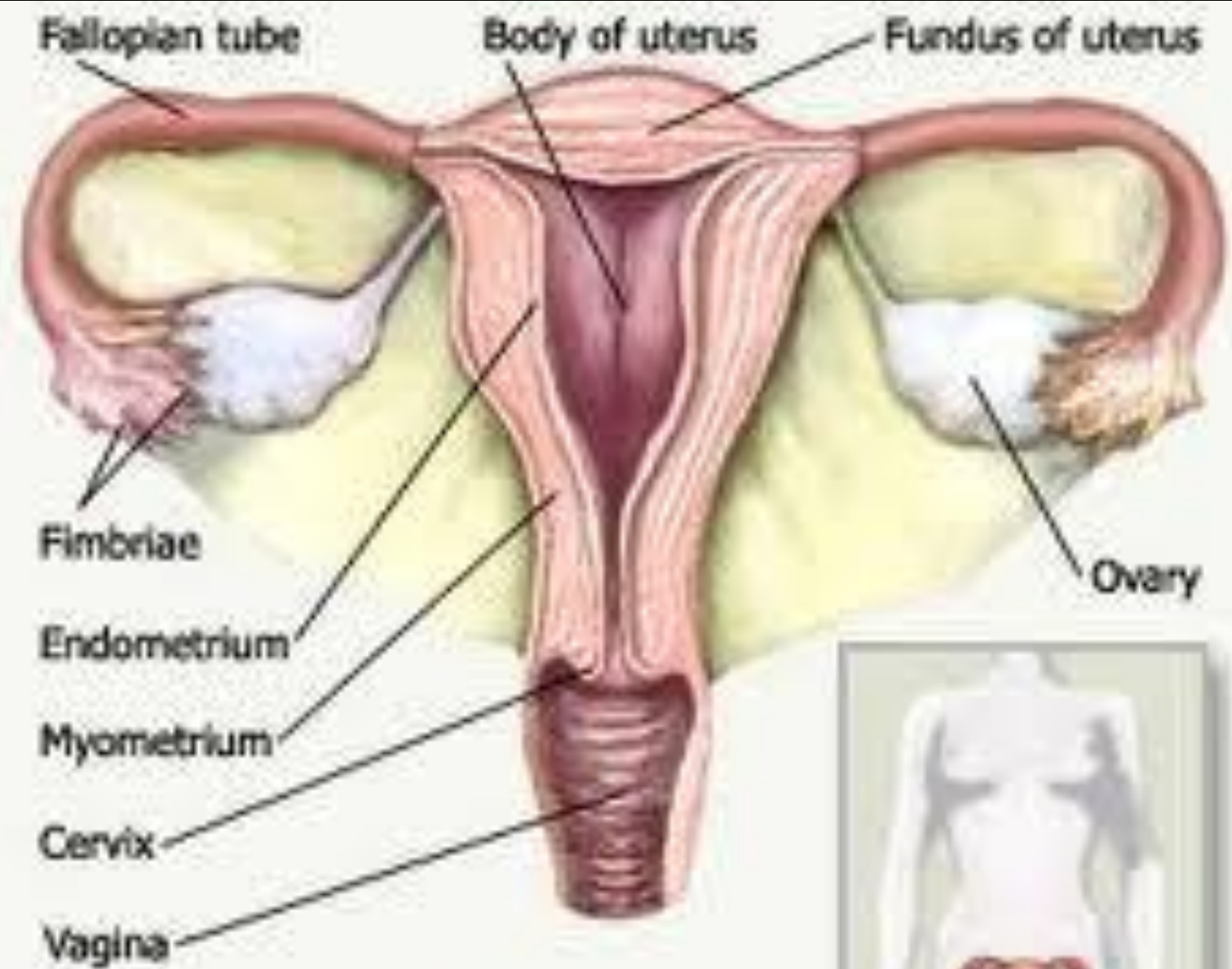
Testicle







A front view of the female reproductive organs.

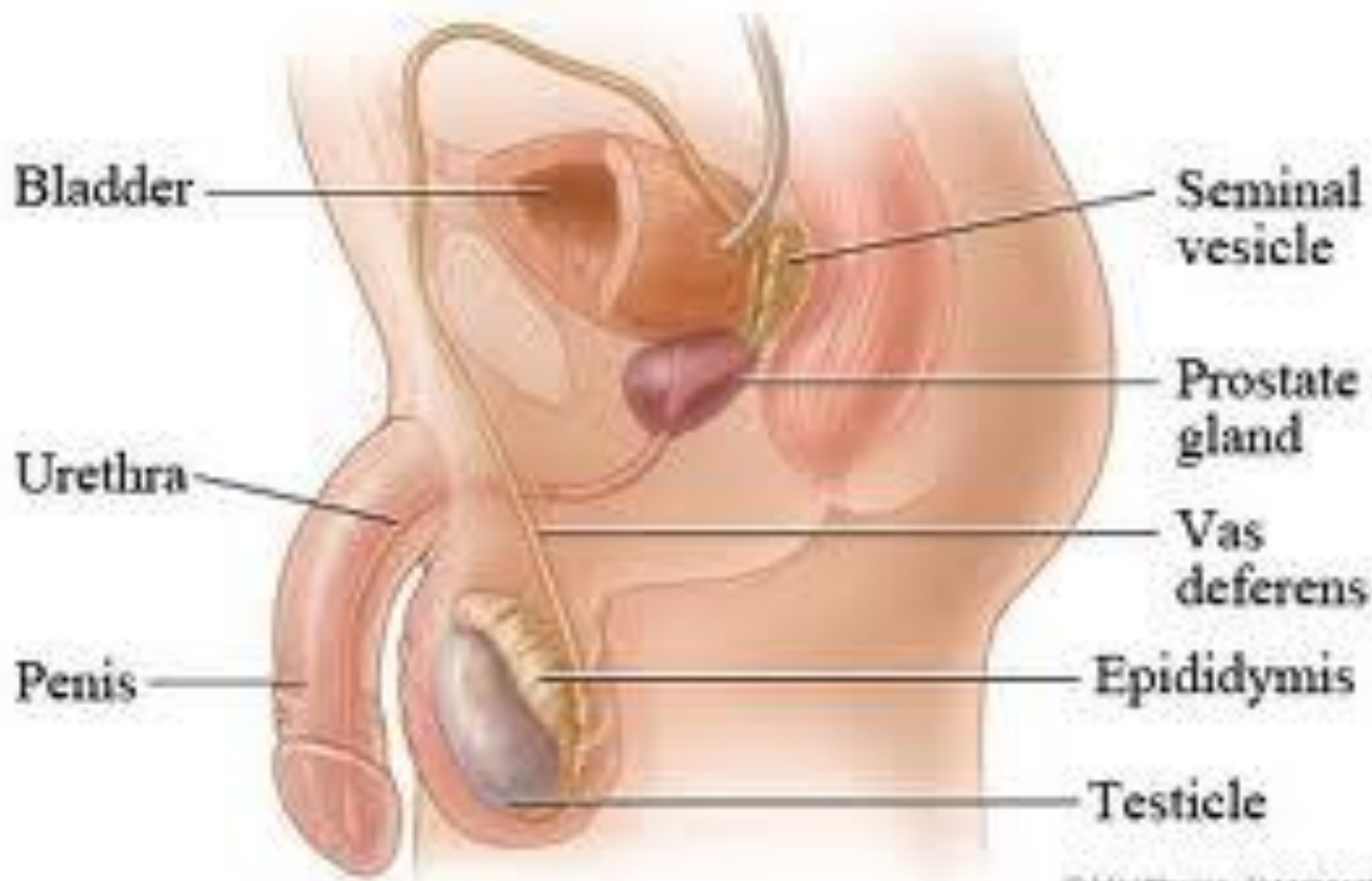


Female reproductive organs

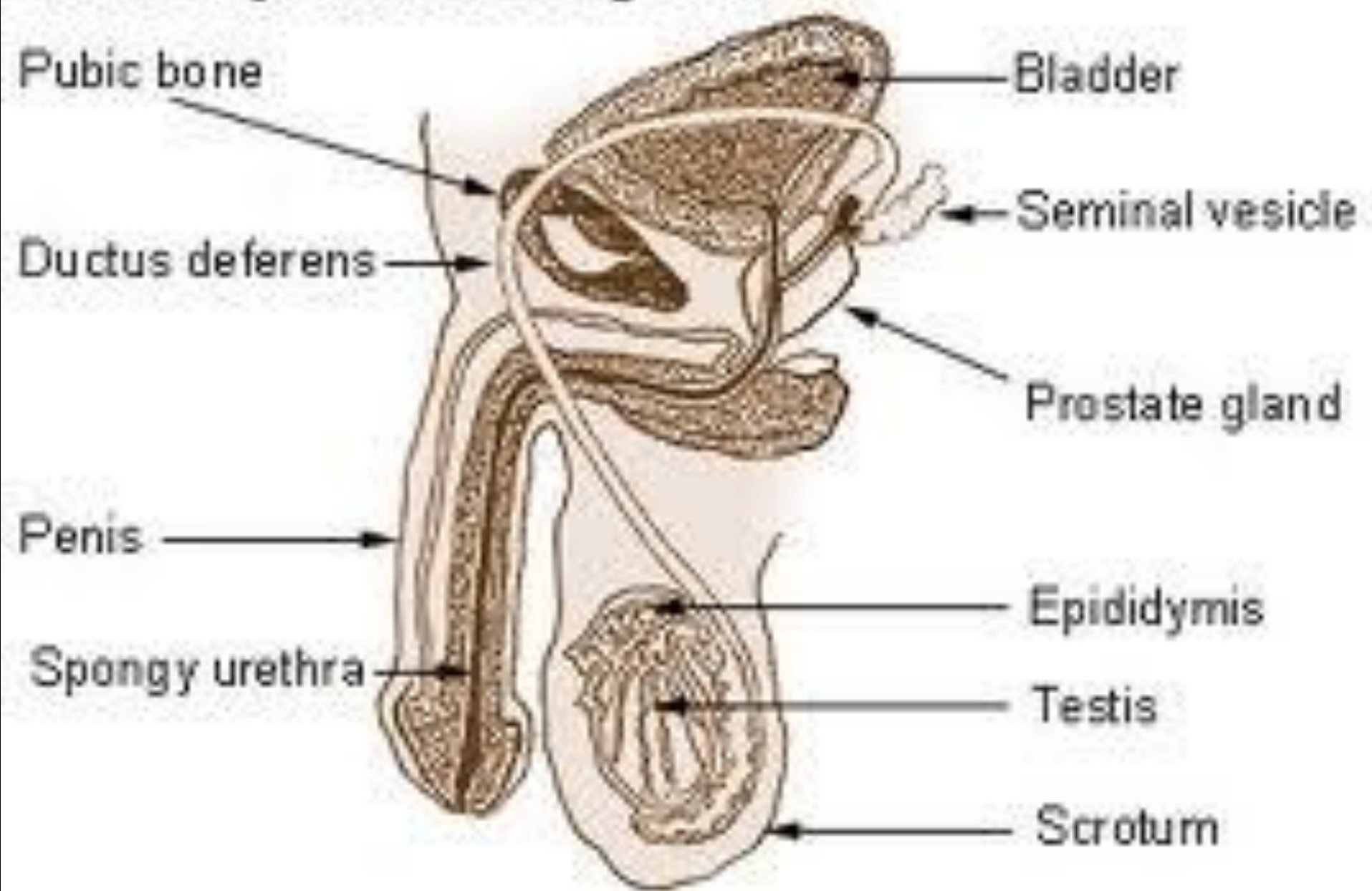








Male Reproductive System





Northern Cardinal



Carolina Chickadee



Turkey Vulture



Tufted Titmouse



Green Heron



Blue Jay



Common Egret



Carolina Wren



Great Blue Heron



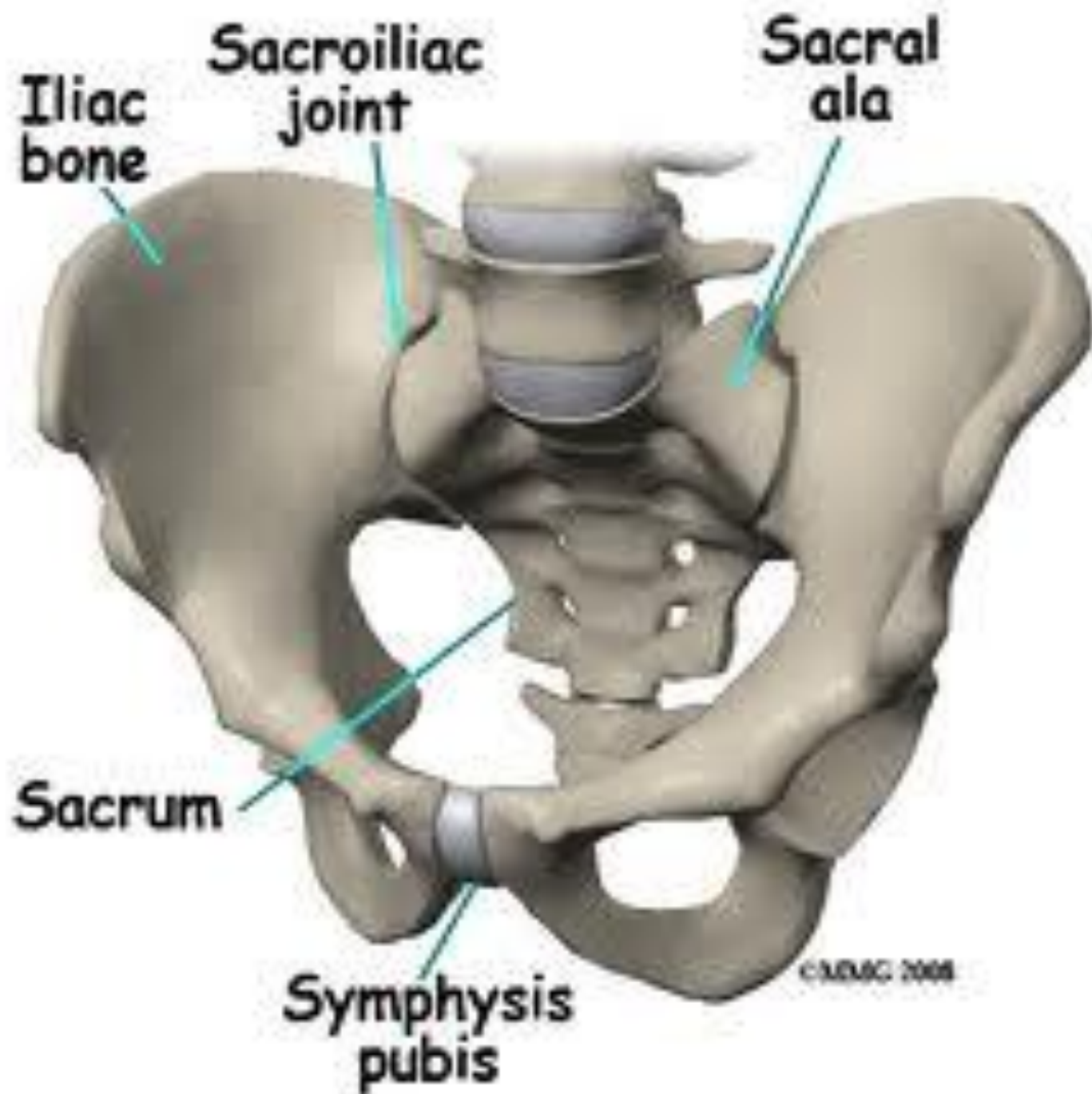


BIRDS OF THE FOREST BORDERS AND GRASSLANDS

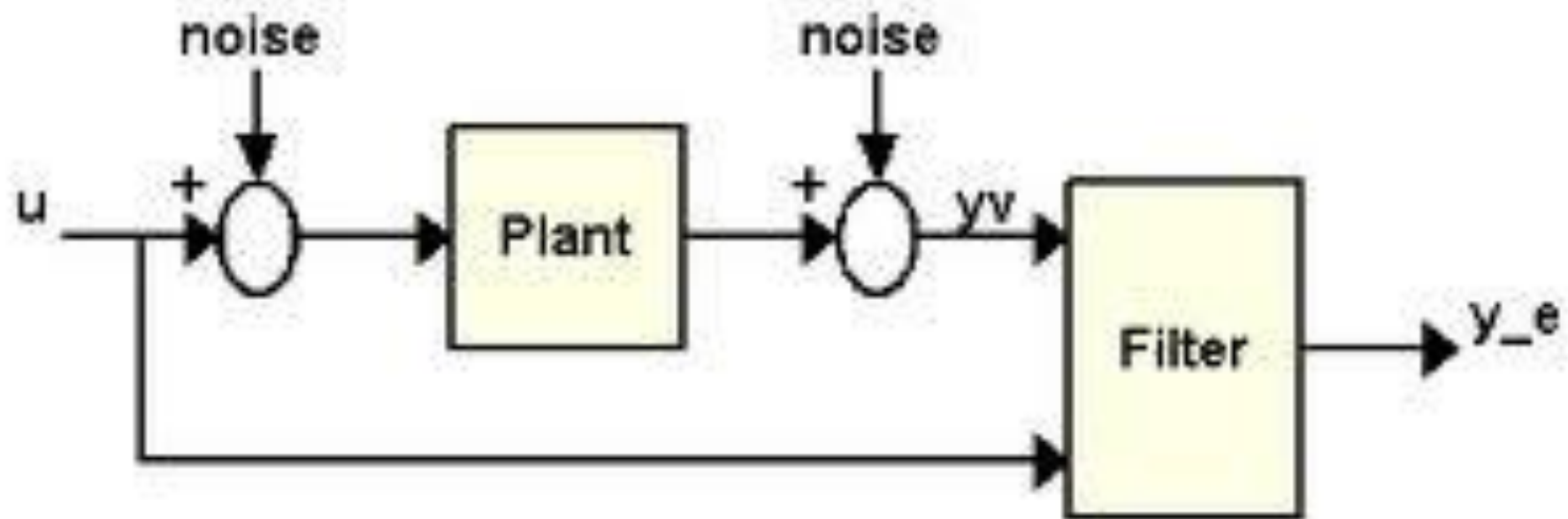


"There is no, we will have a look."









Cell
Wall

Cytoplasm

Reception

Transduction

Induction

Reactions
producing

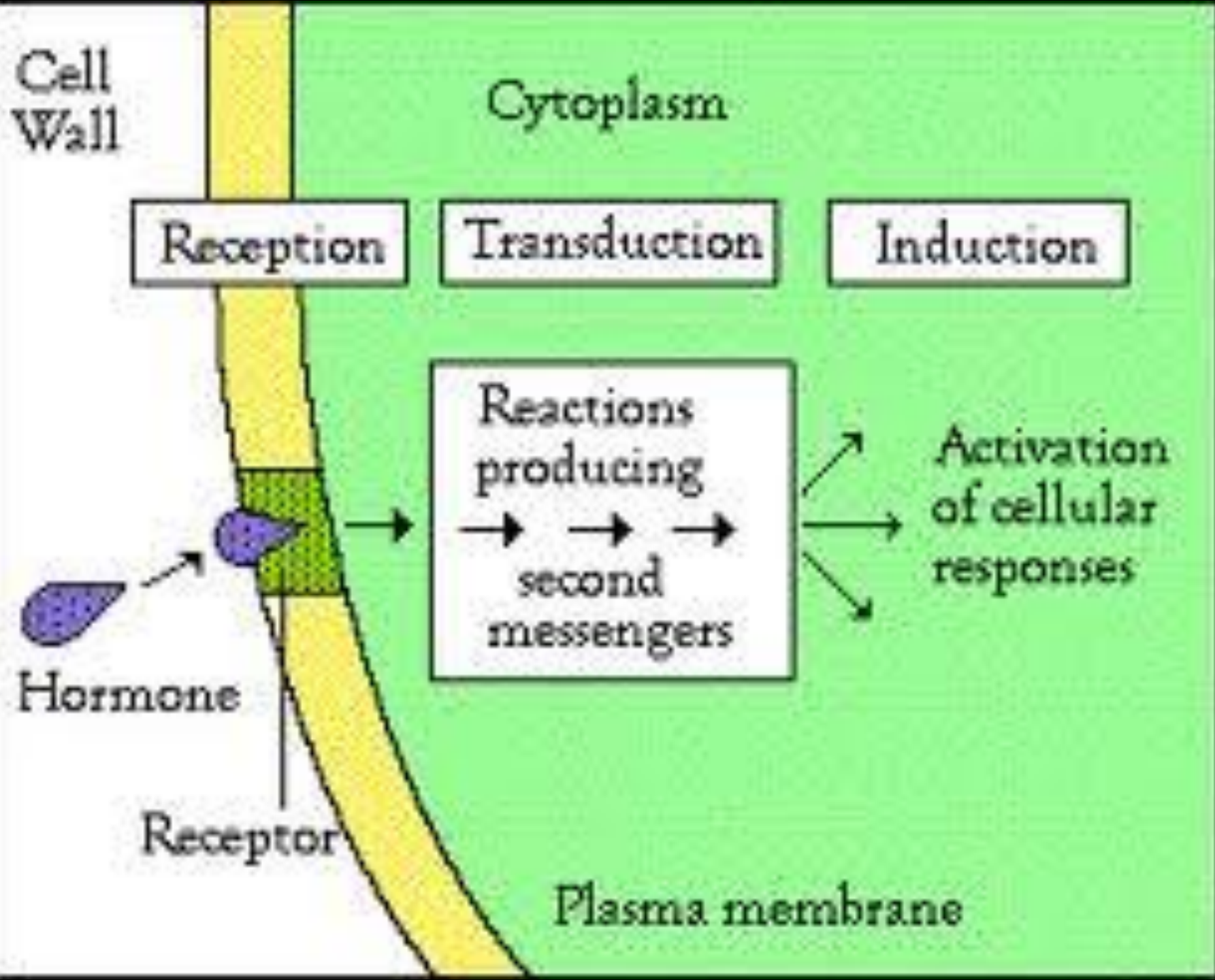
→ → →
second
messengers

Activation
of cellular
responses

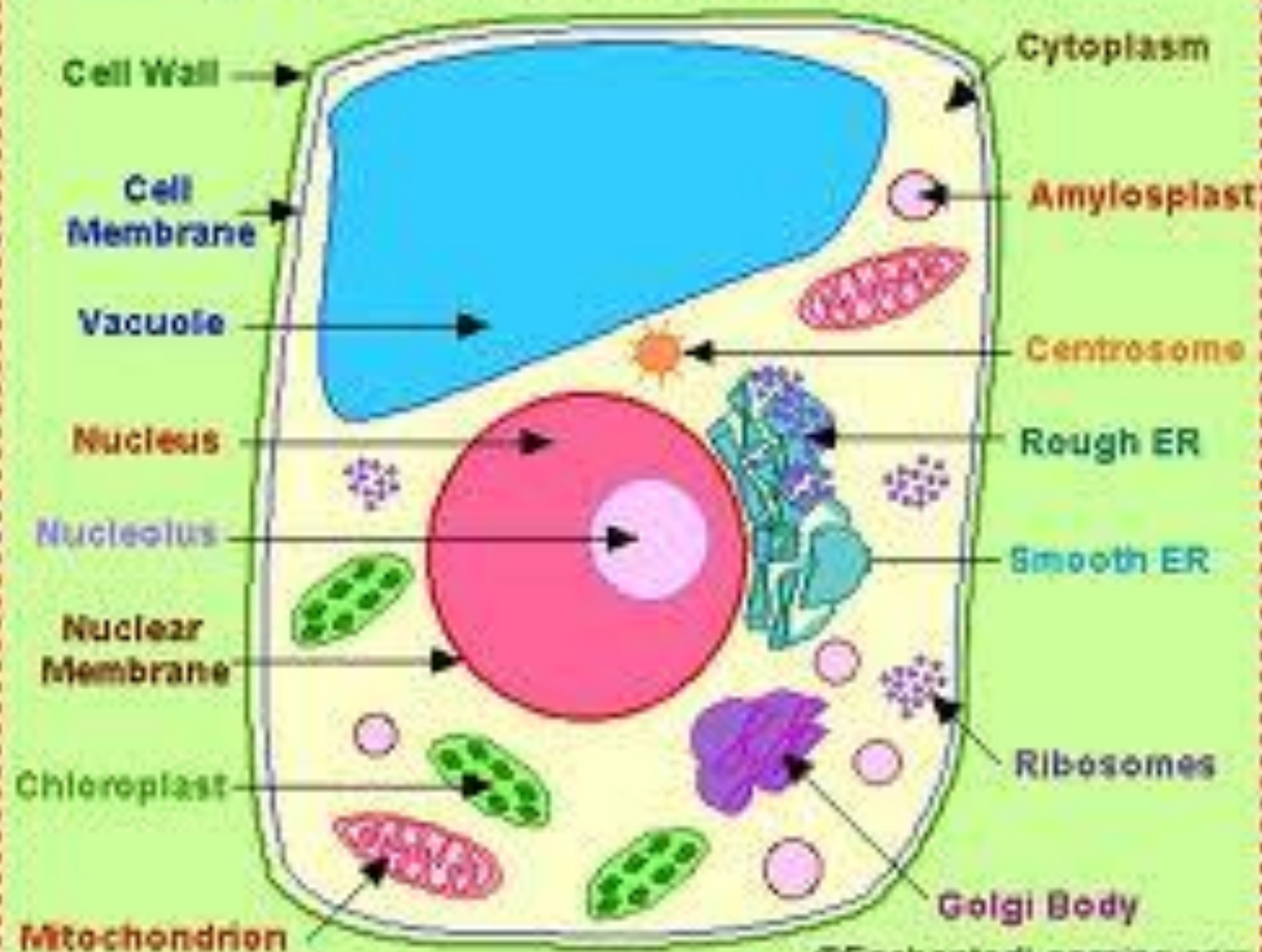
Hormone

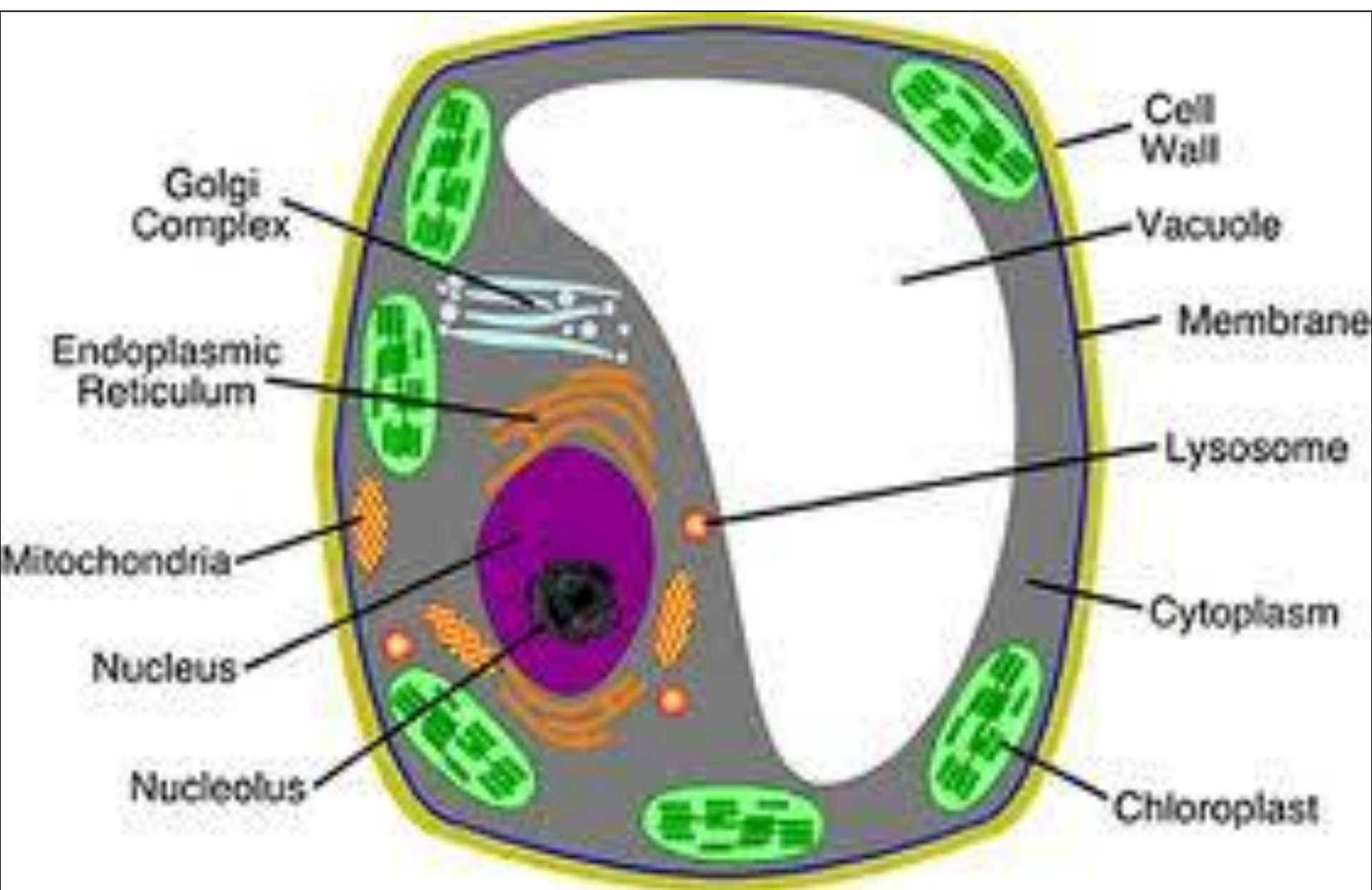
Receptor

Plasma membrane

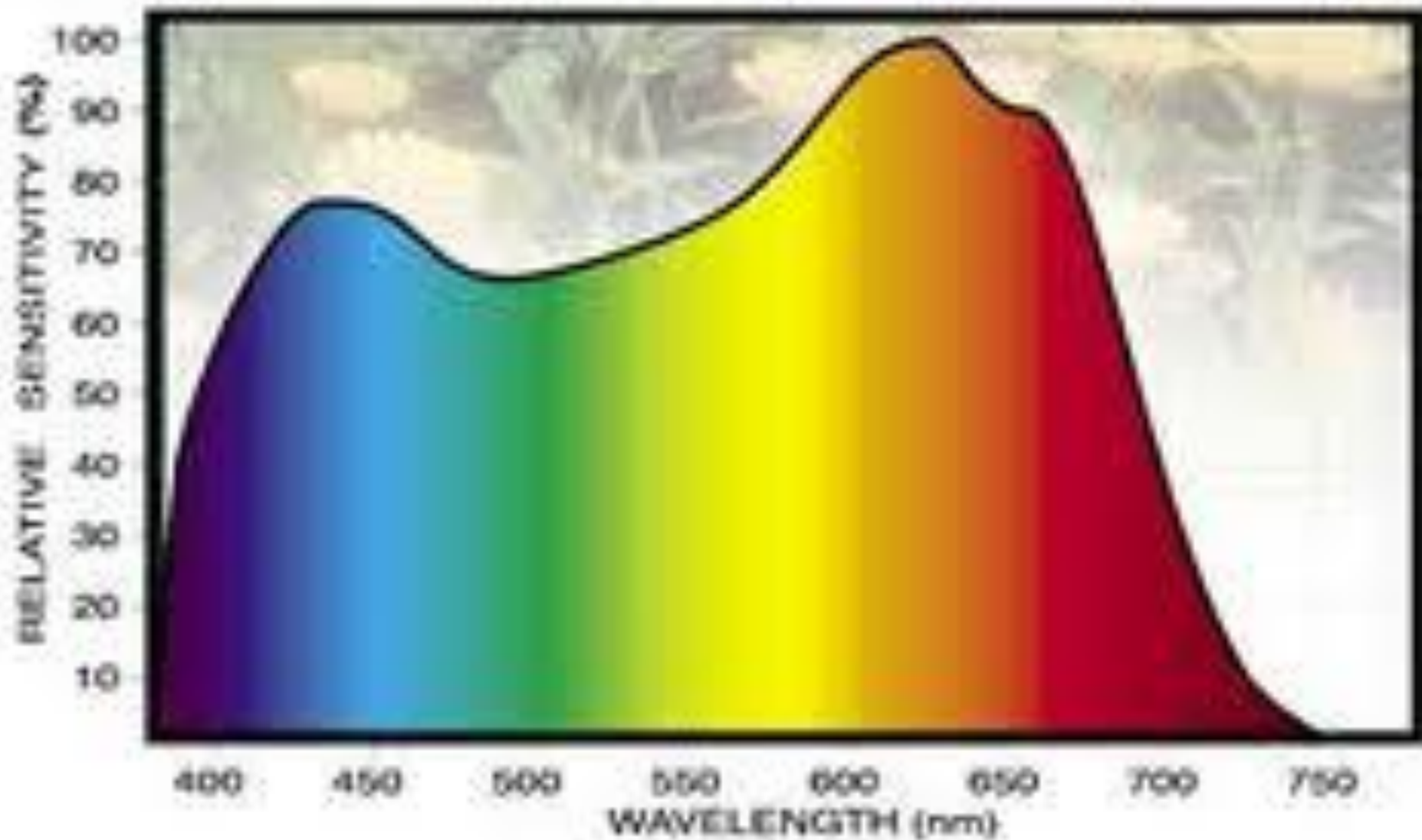


Cross-Section of a Plant Cell



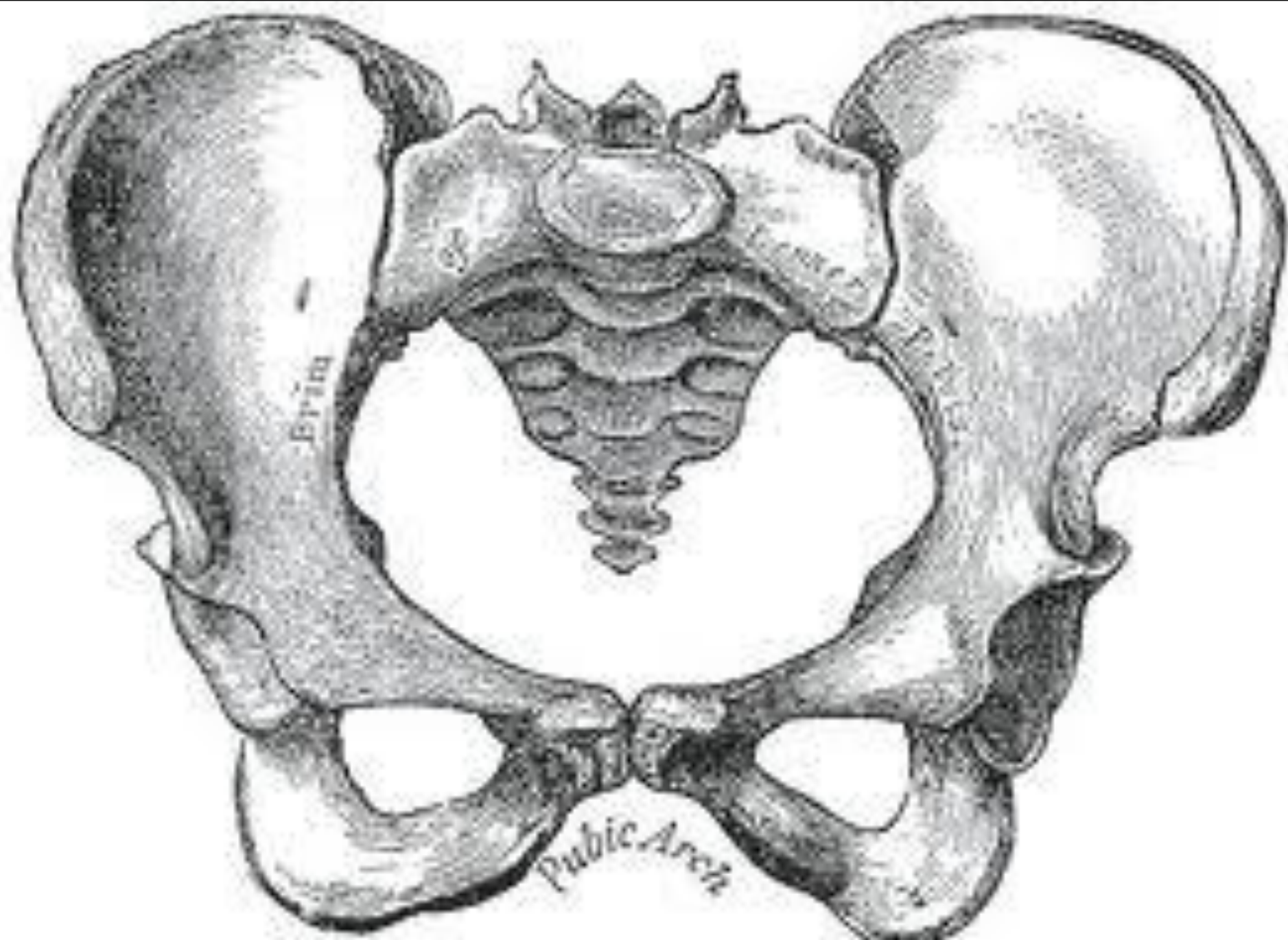


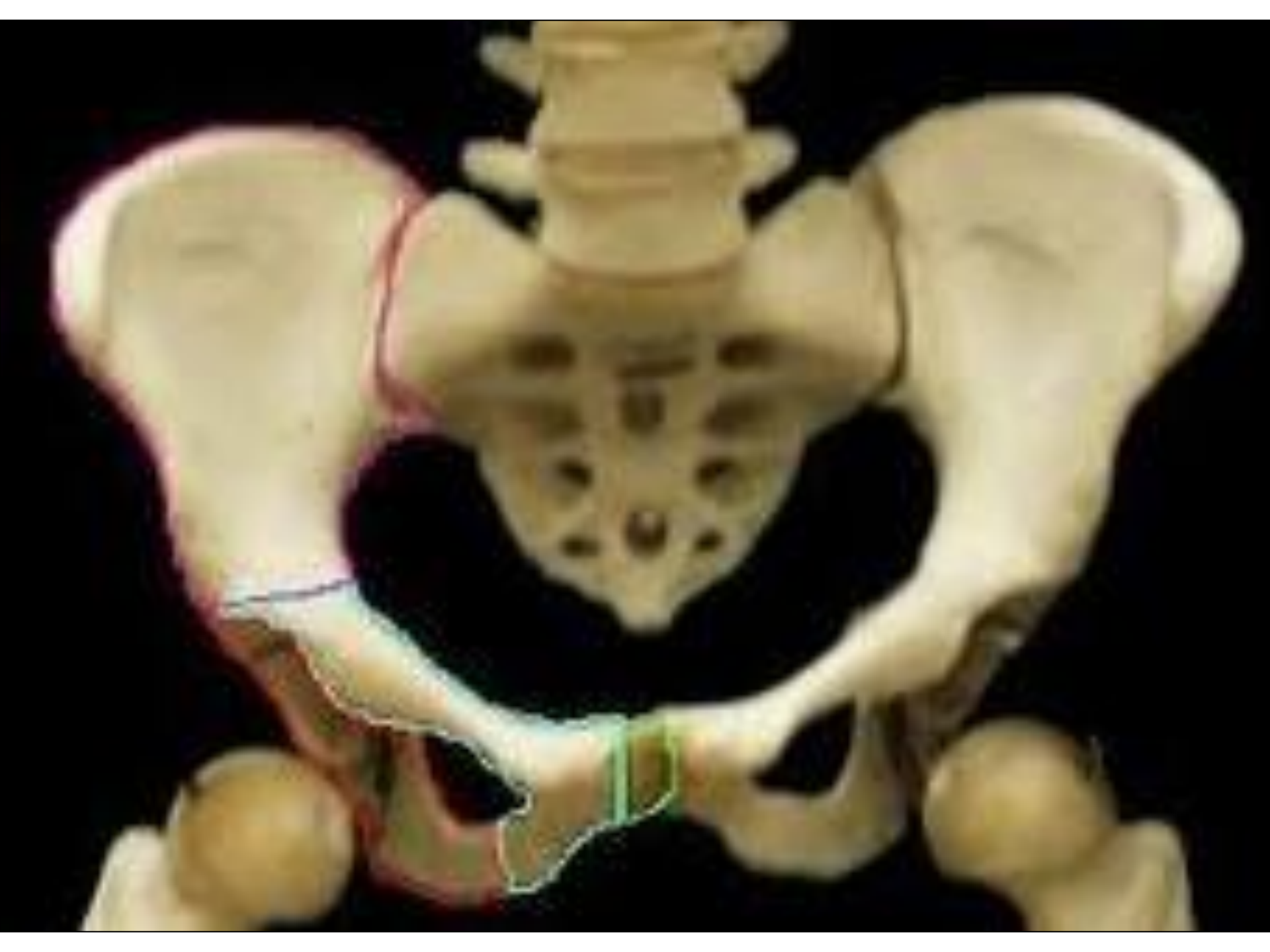
Photosynthetic Response Réponse photosynthétique



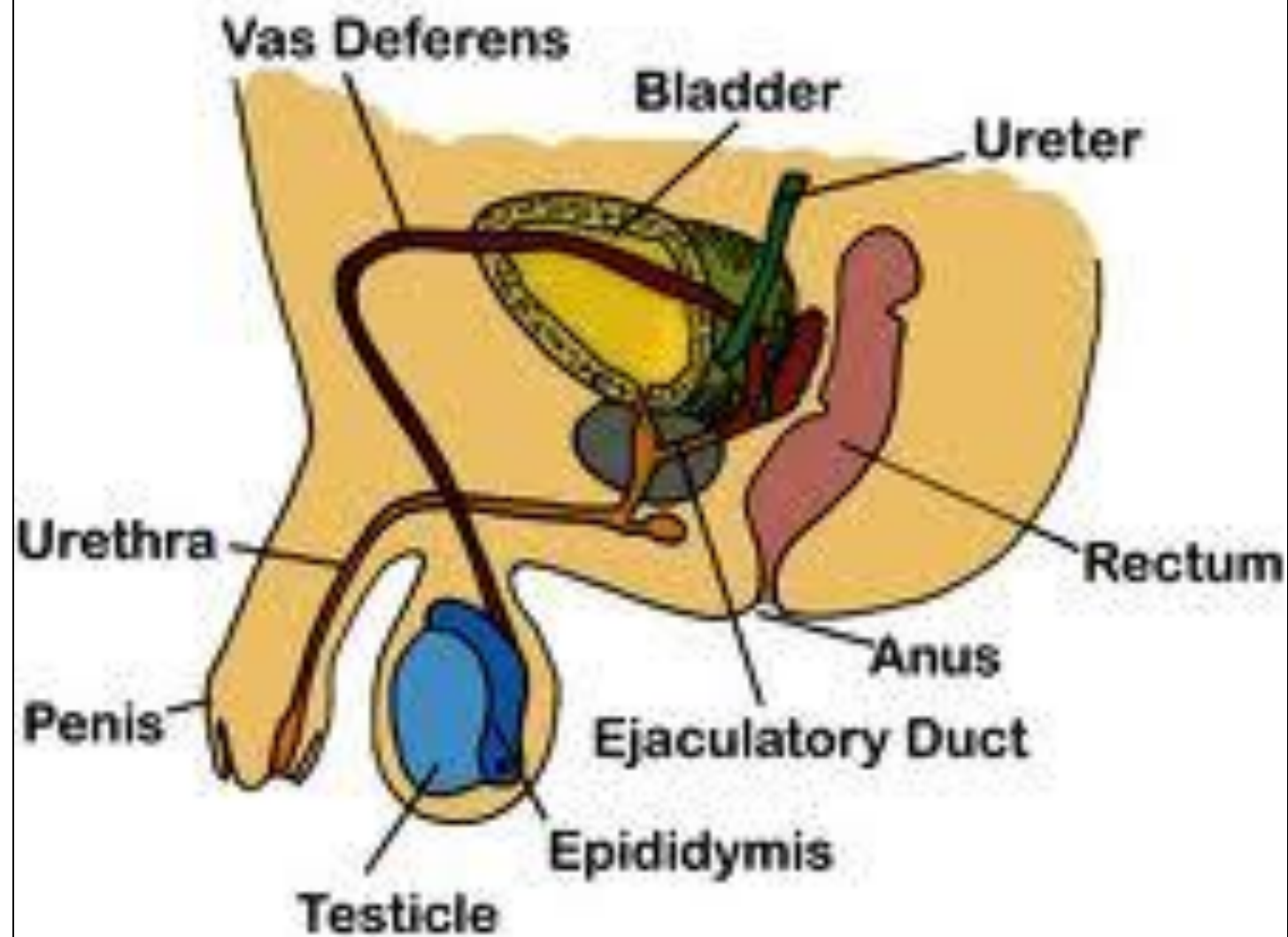






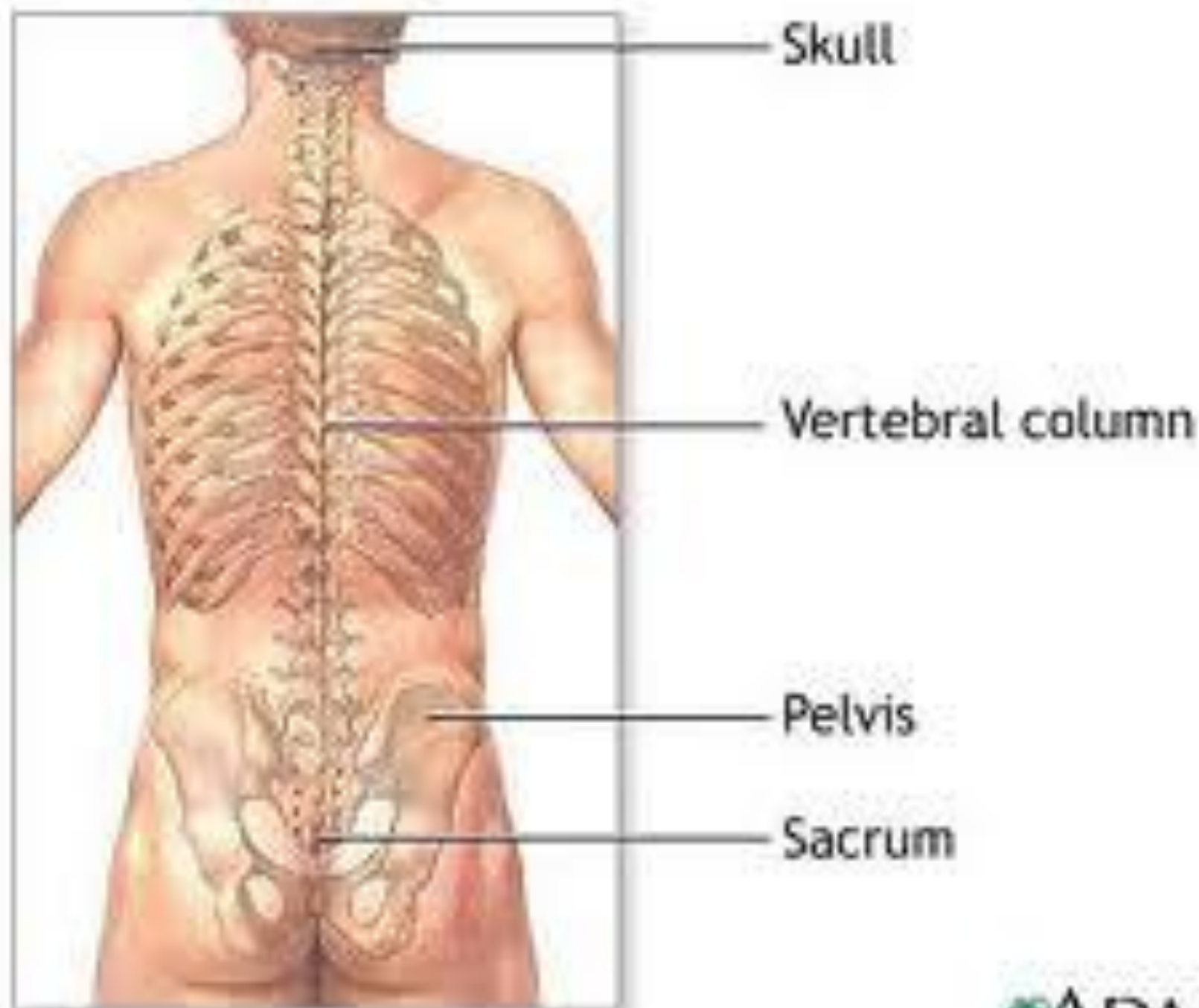


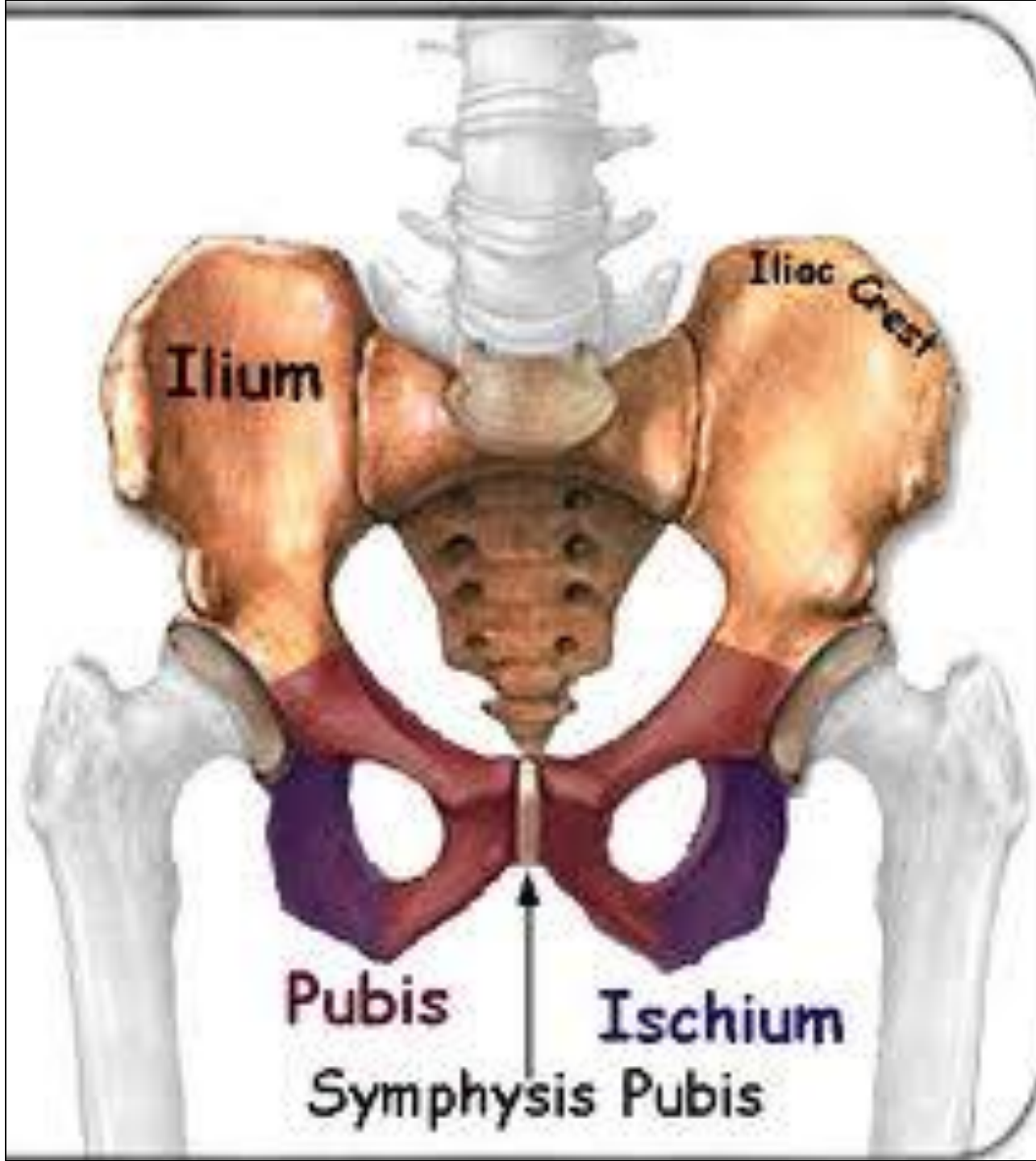




**MALE
HUMAN**









Narrow Subpubic
Angle

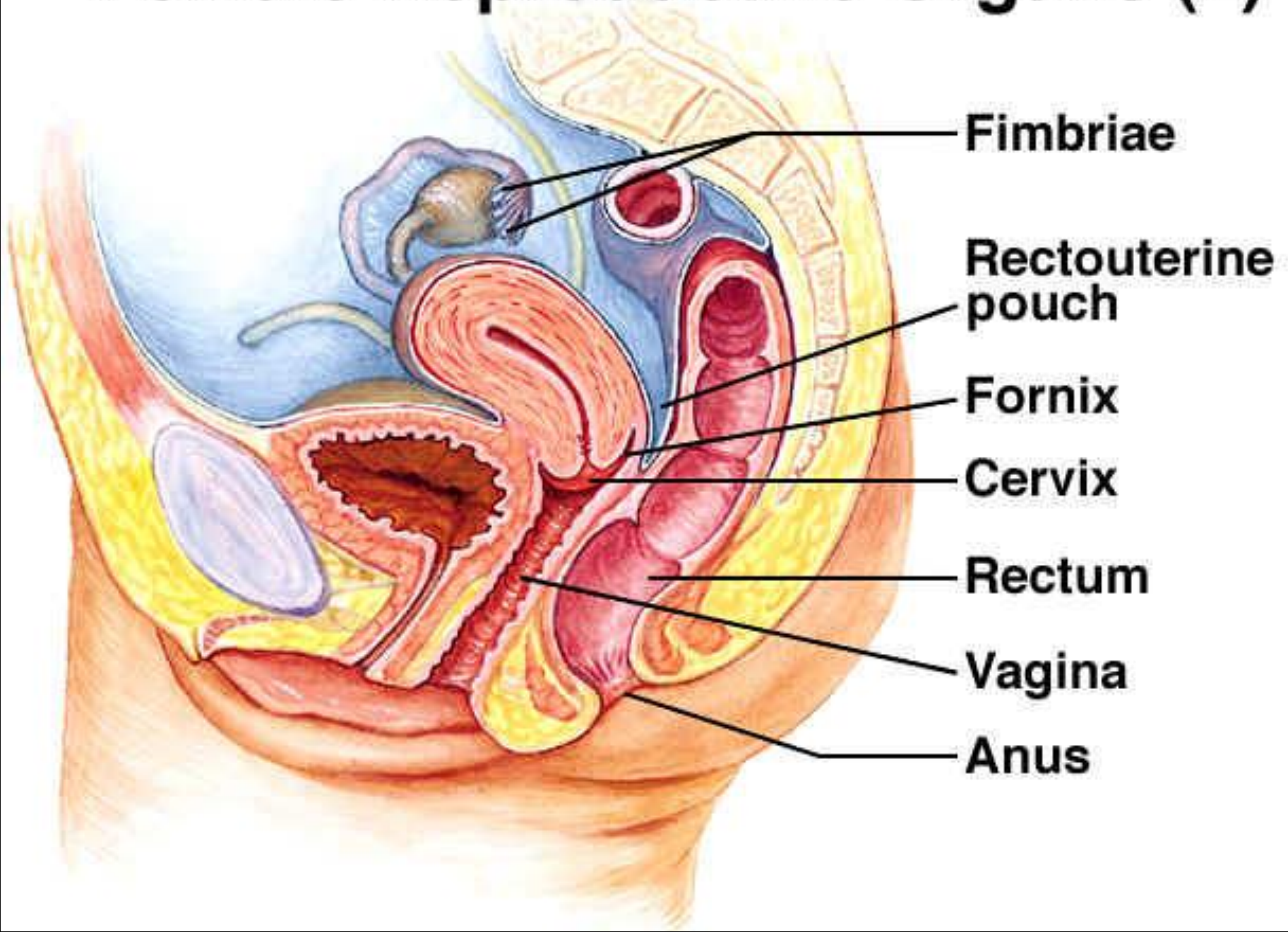


Narrow Greater
Sciatic Notch



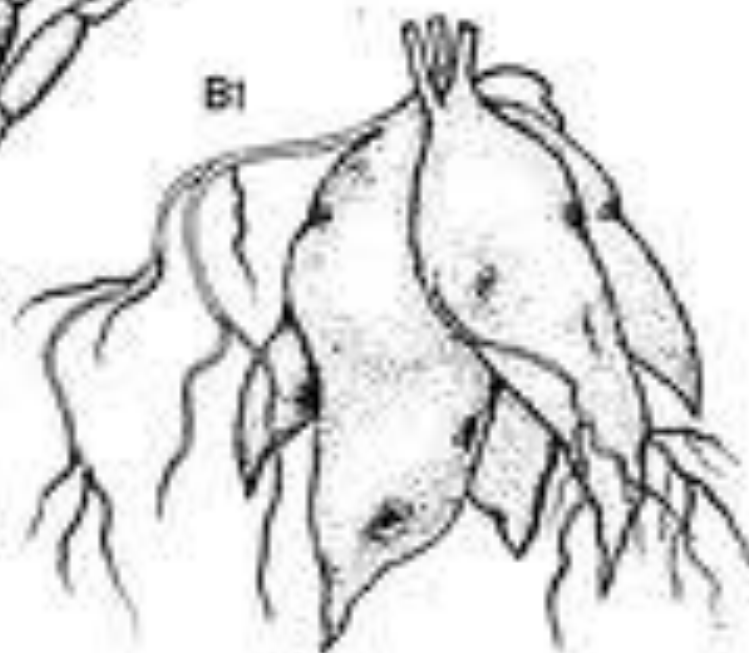
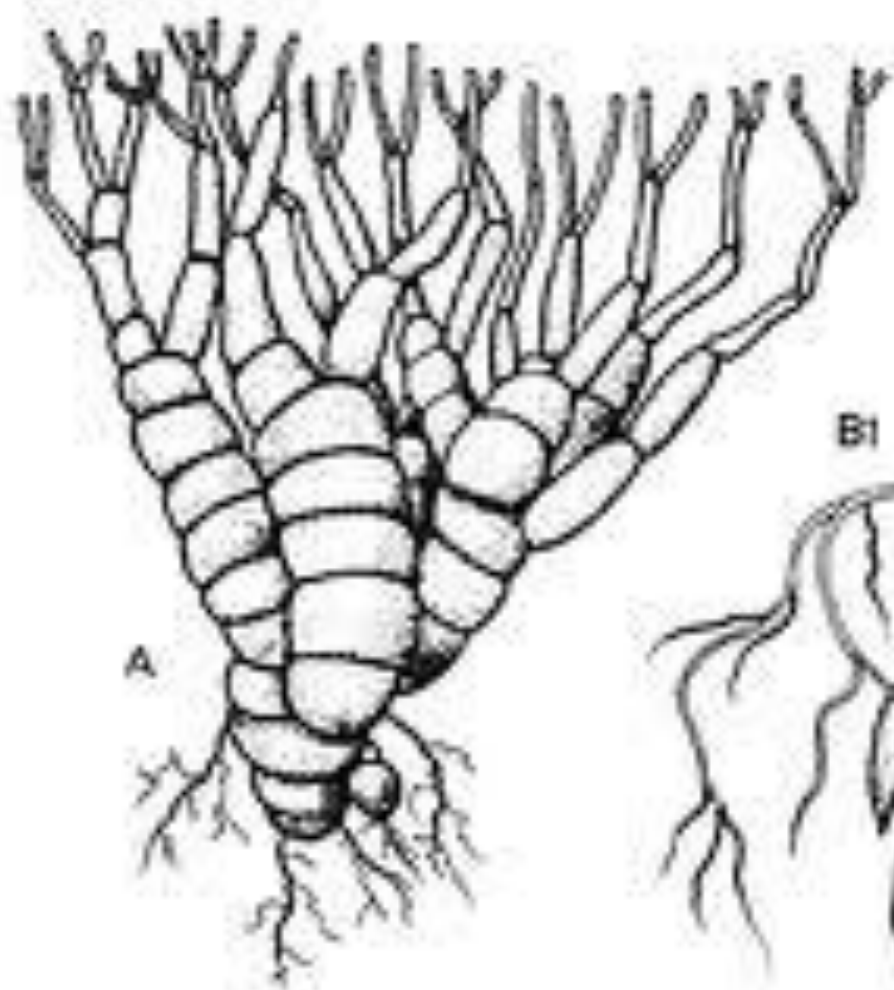
Narrow pubic bone

Female Reproductive Organs (2)

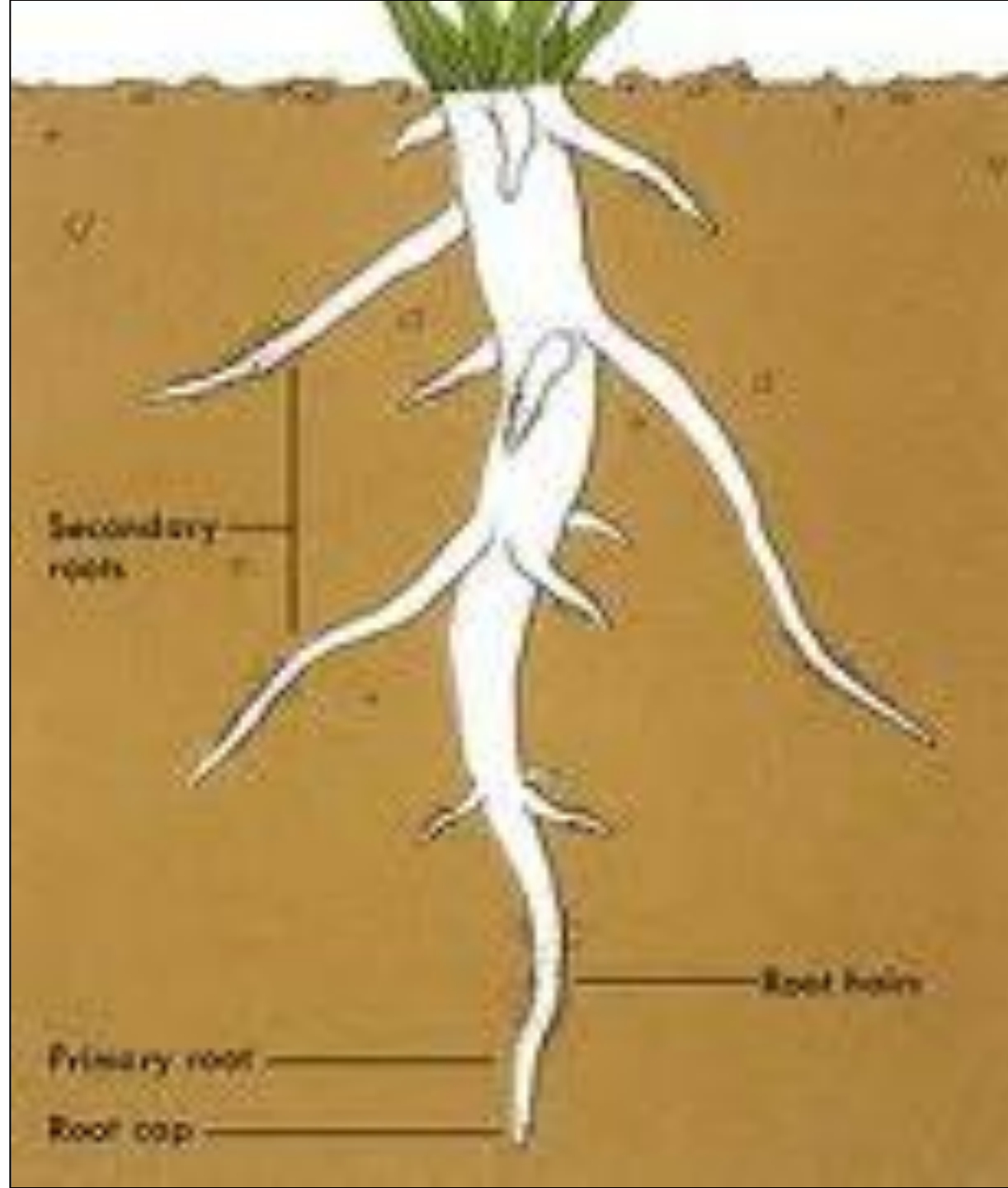


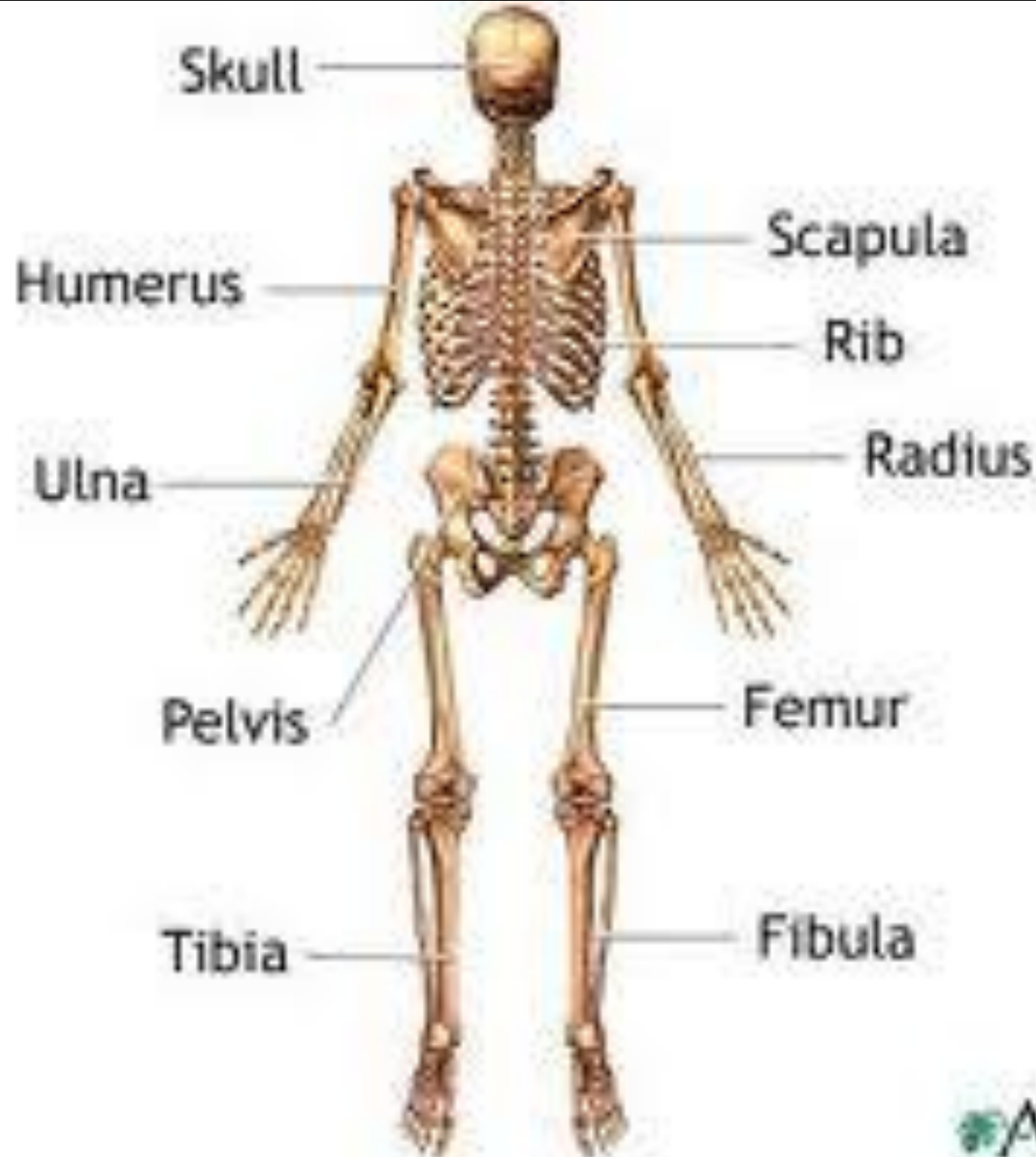














Rotator cuff muscles

Supraspinatous muscle

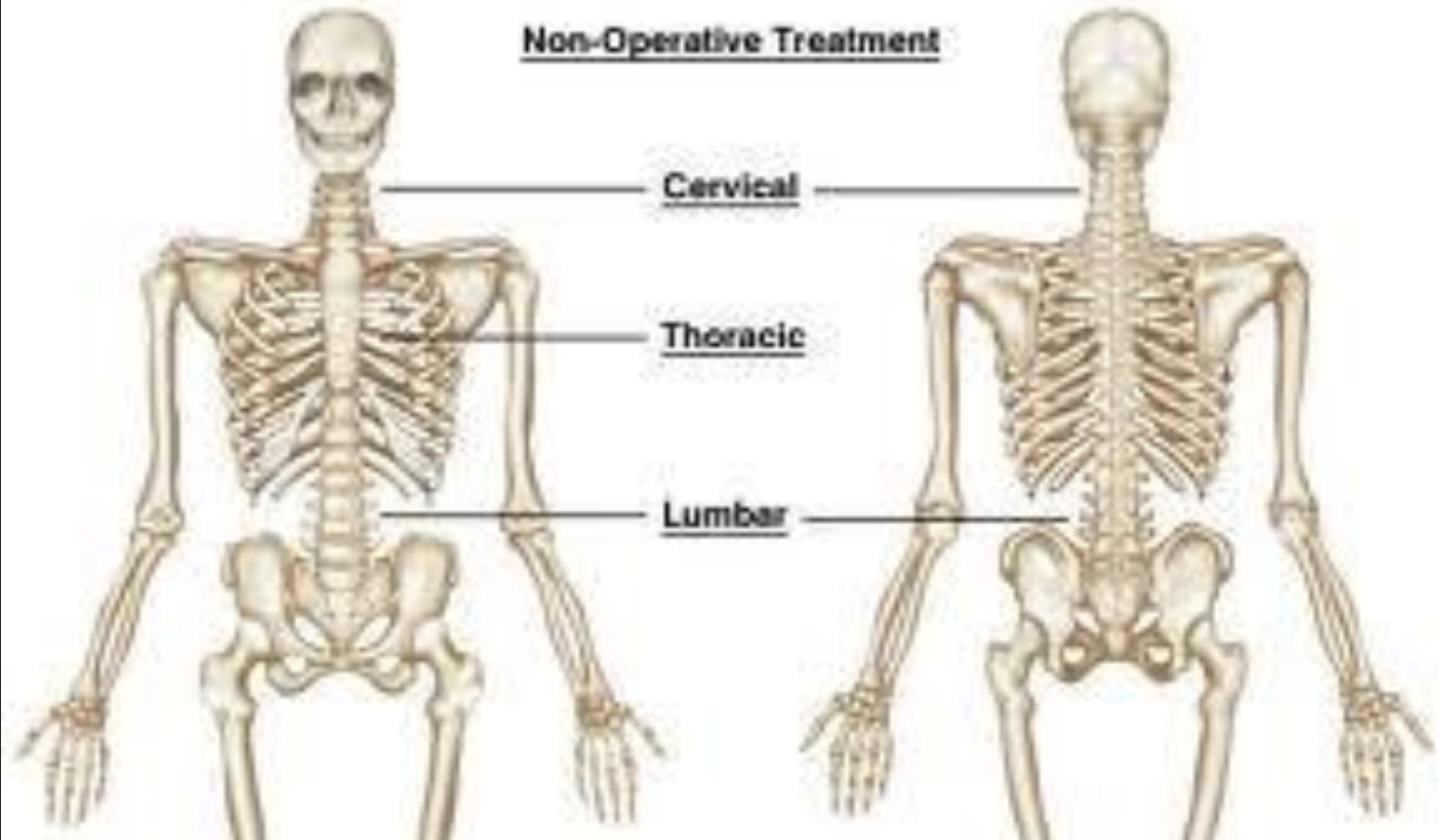


Anterior shoulder

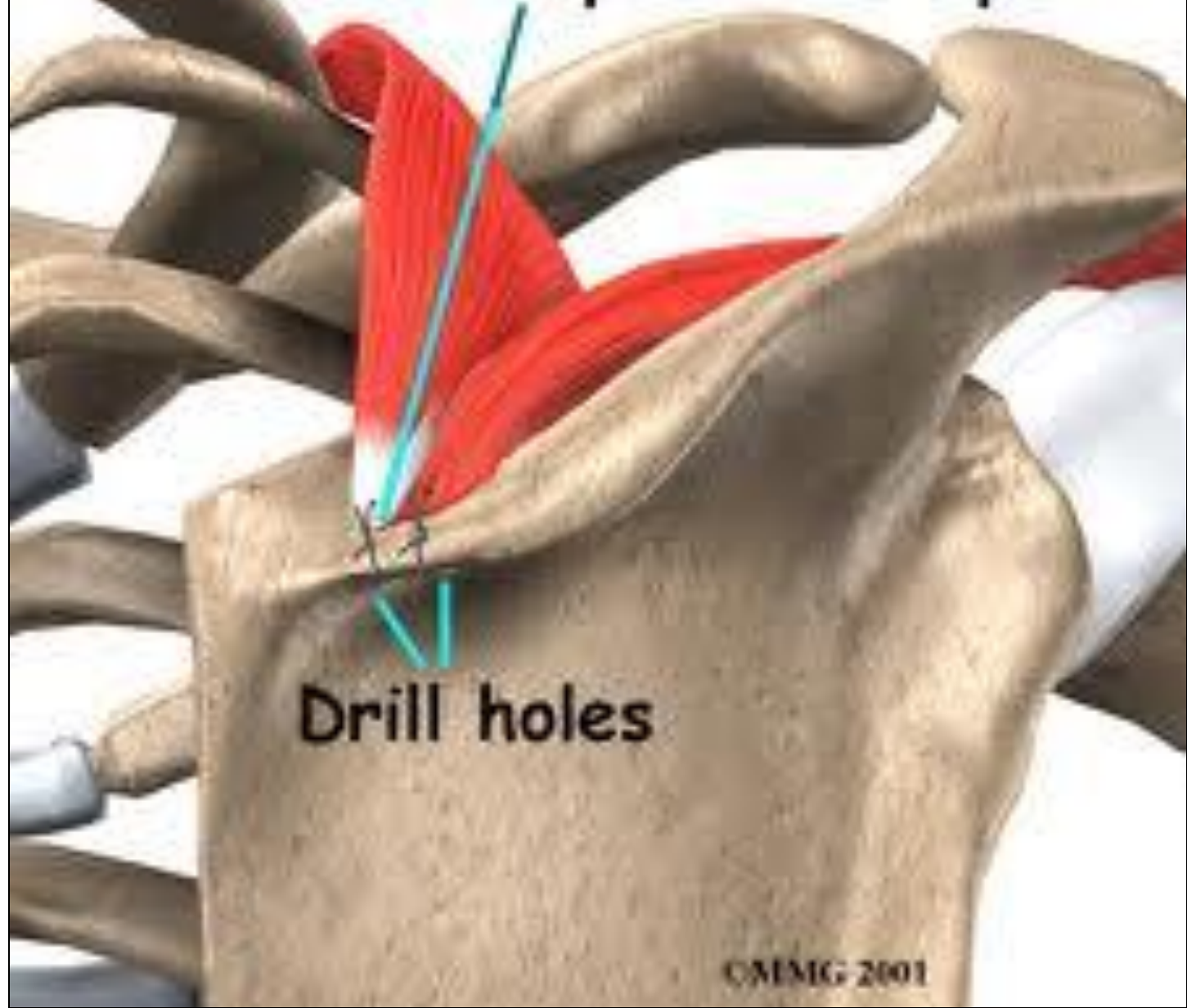


Posterior shoulder

Non-Operative Treatment



**Ends of muscles sewn
onto spine of scapula**

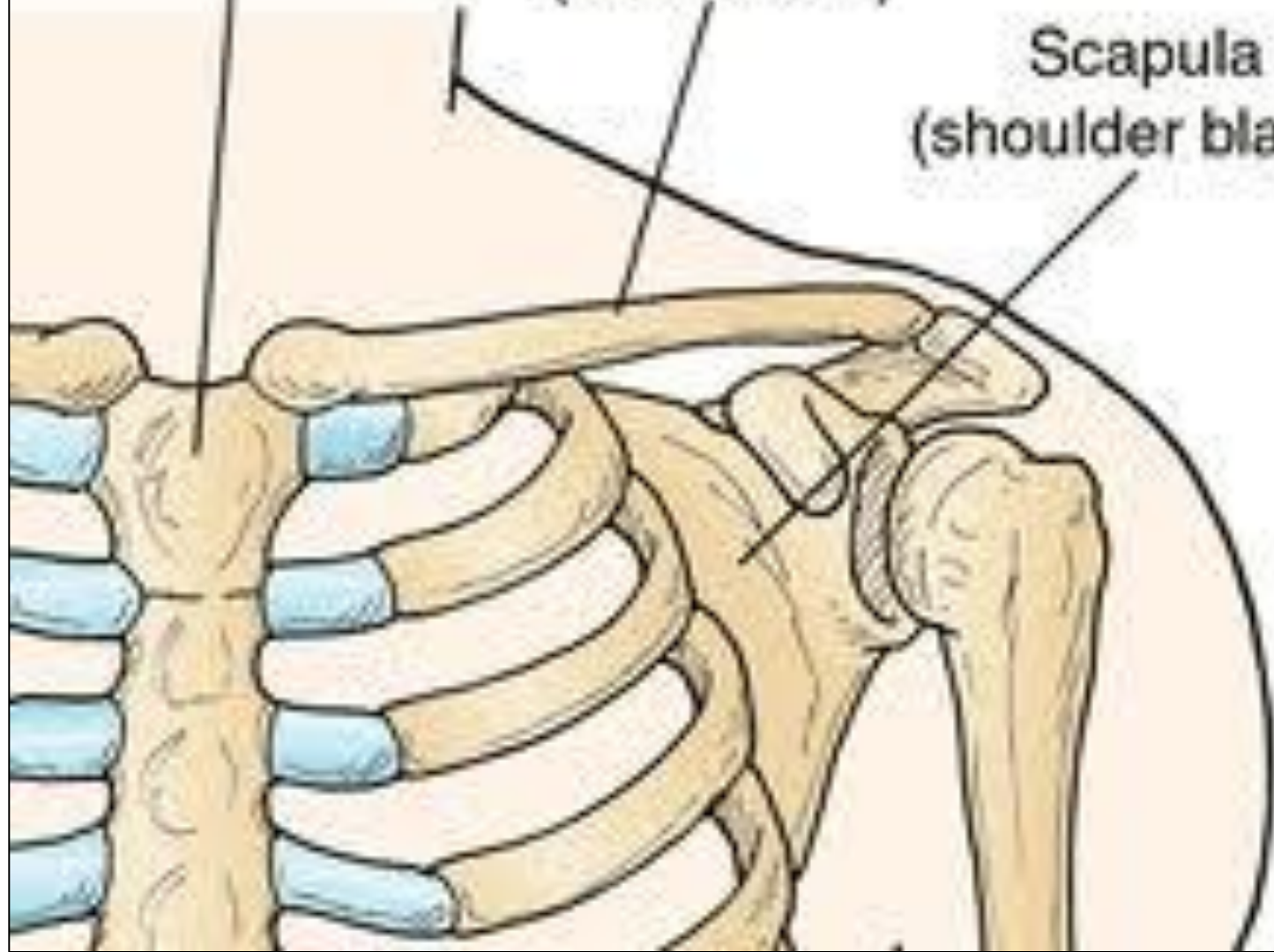


Drill holes

Sternum
(breastbone)

Clavicle
(collarbone)

Scapula
(shoulder blade)







Acromion

Coracoid process

Spine of scapula

Glenoid fossa

Medial border

Lateral border

Inferior angle



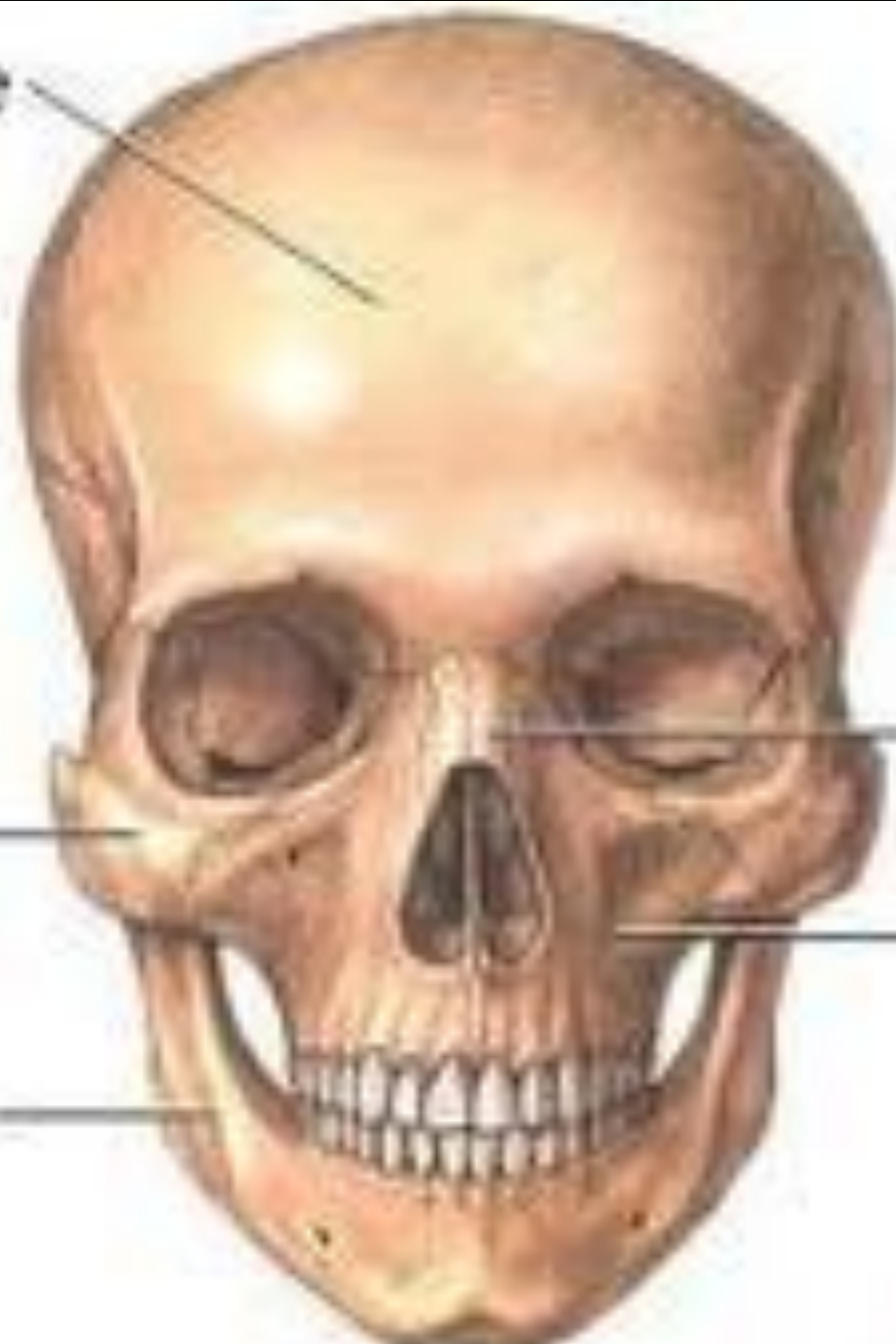
Frontal bone

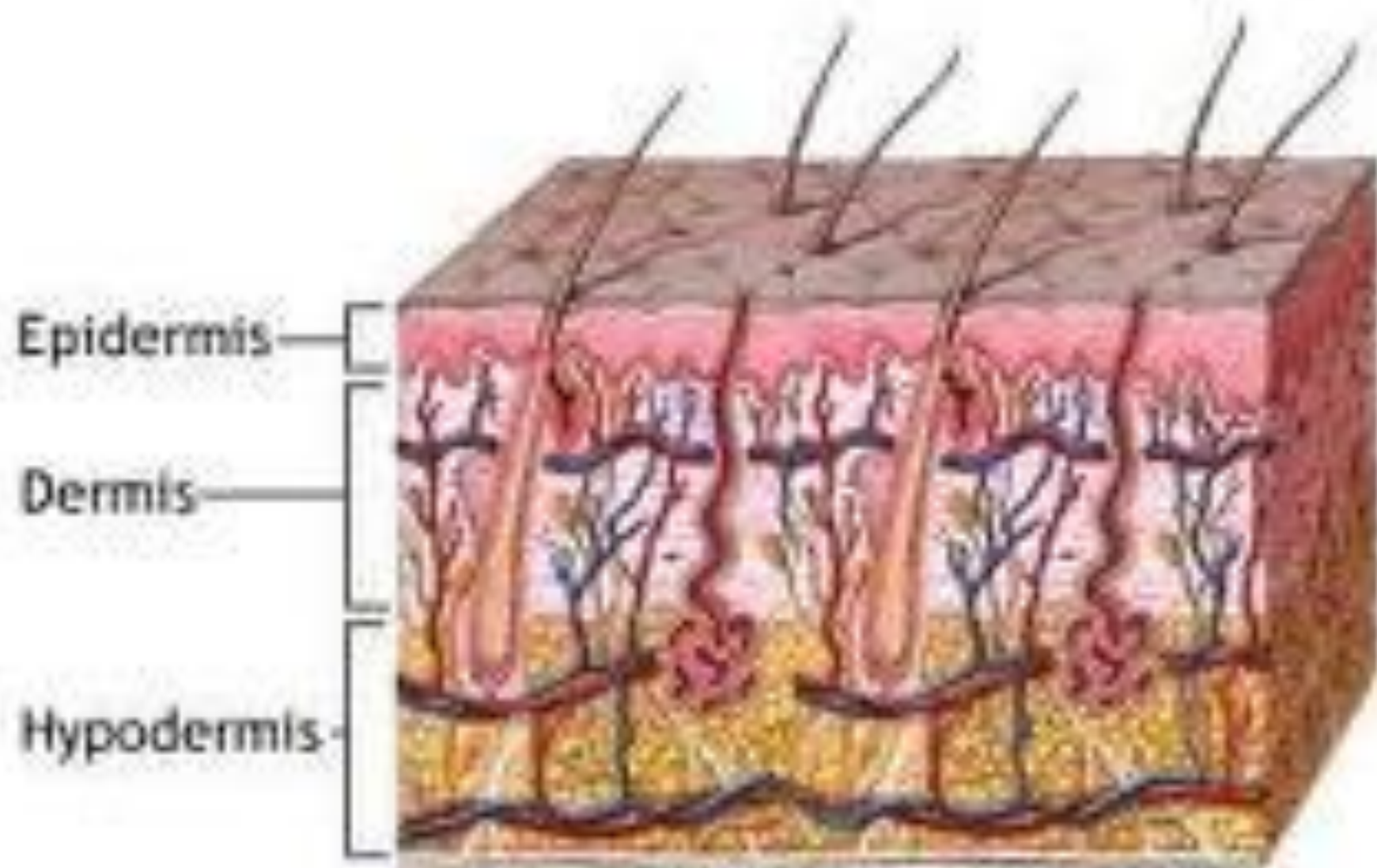
Zygomatic
bone

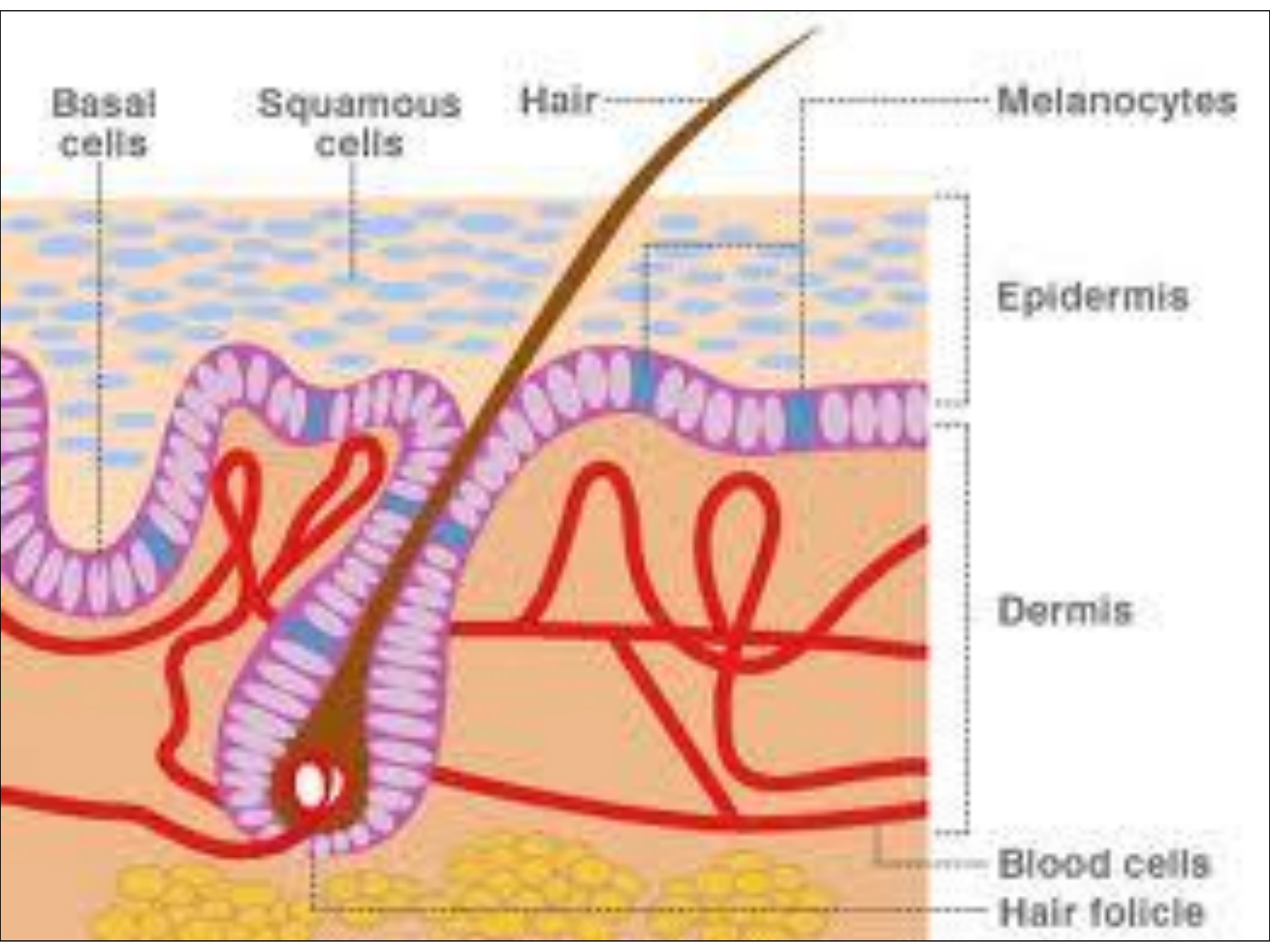
Mandible

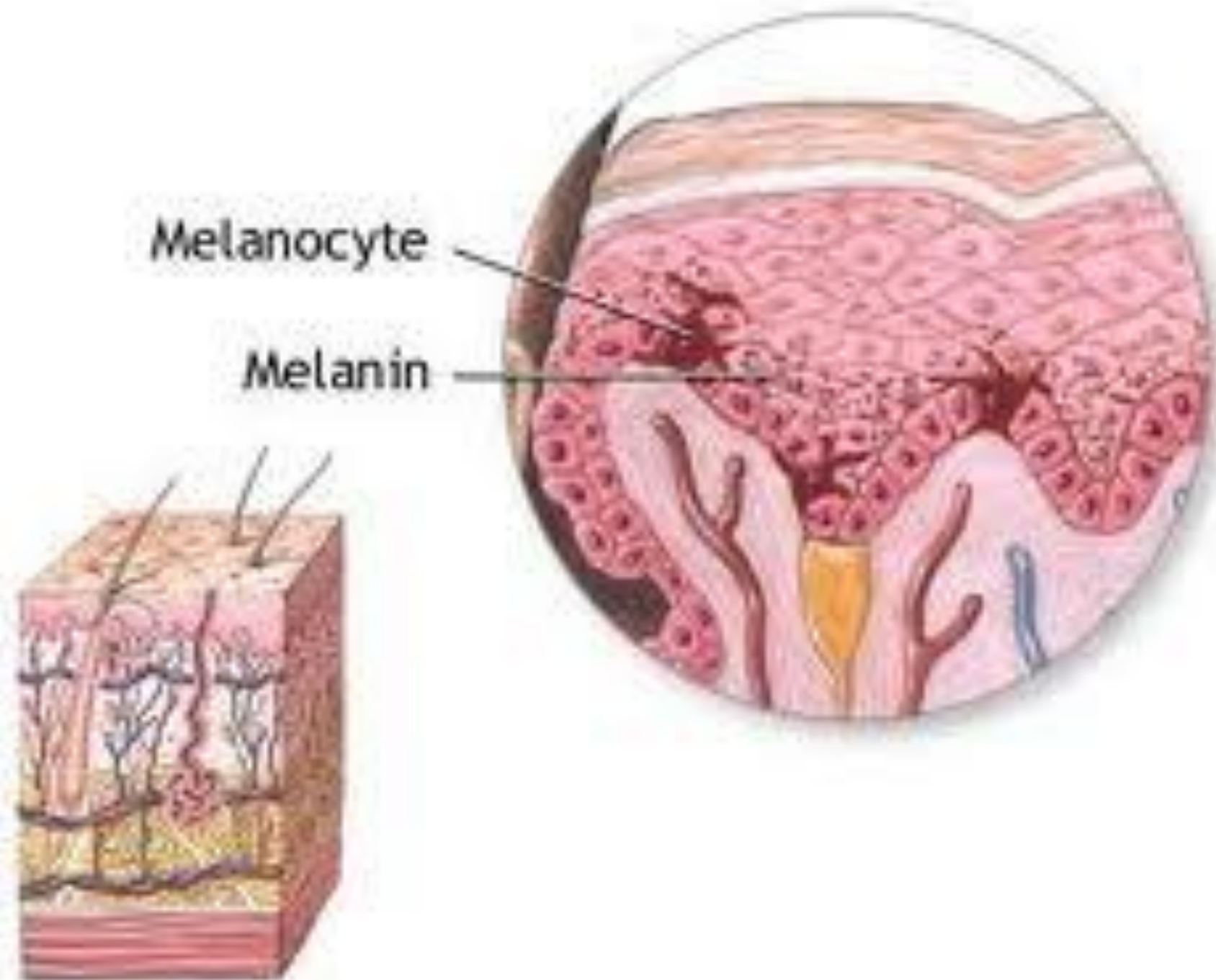
Nasal bone

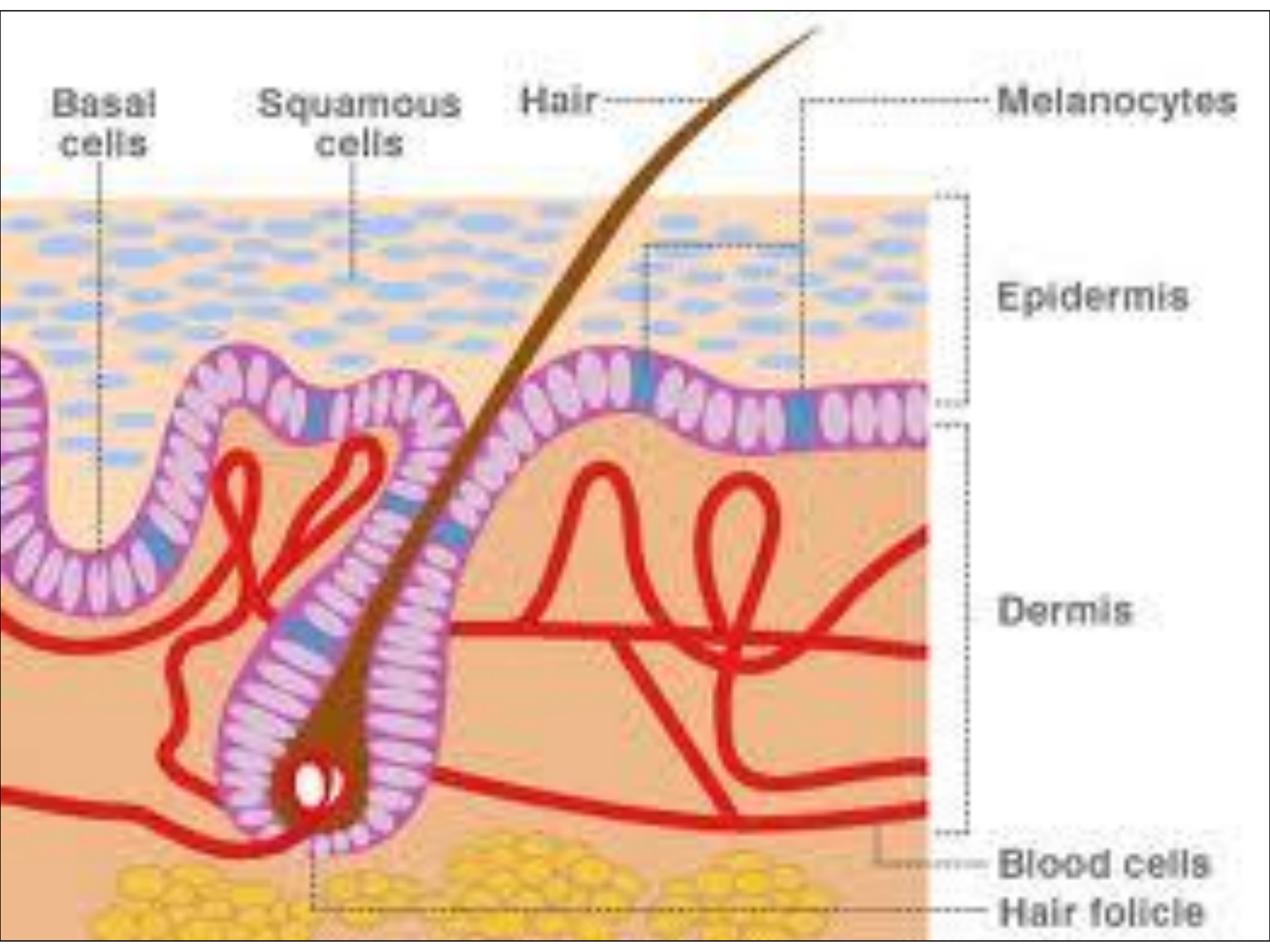
Maxilla

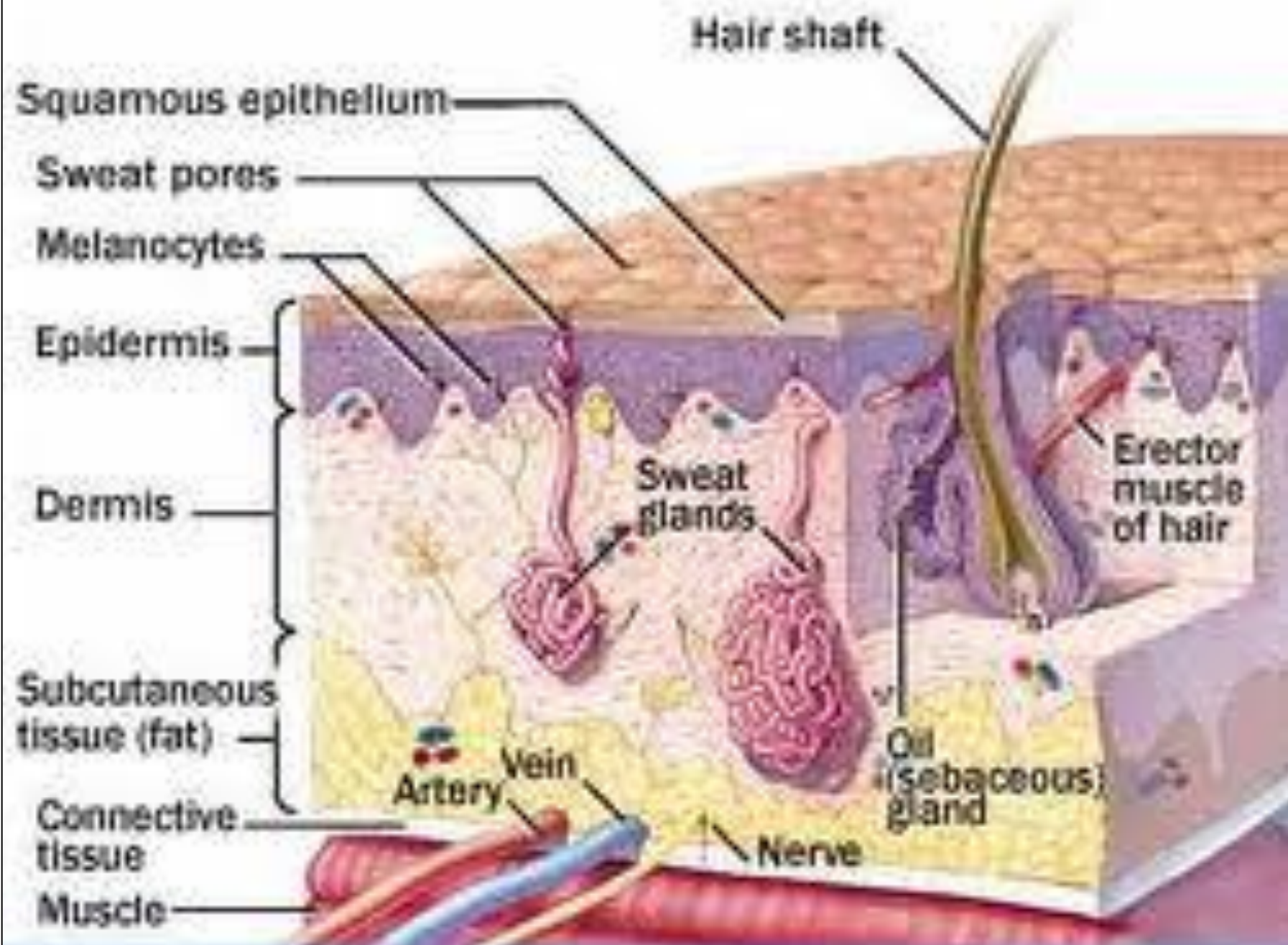


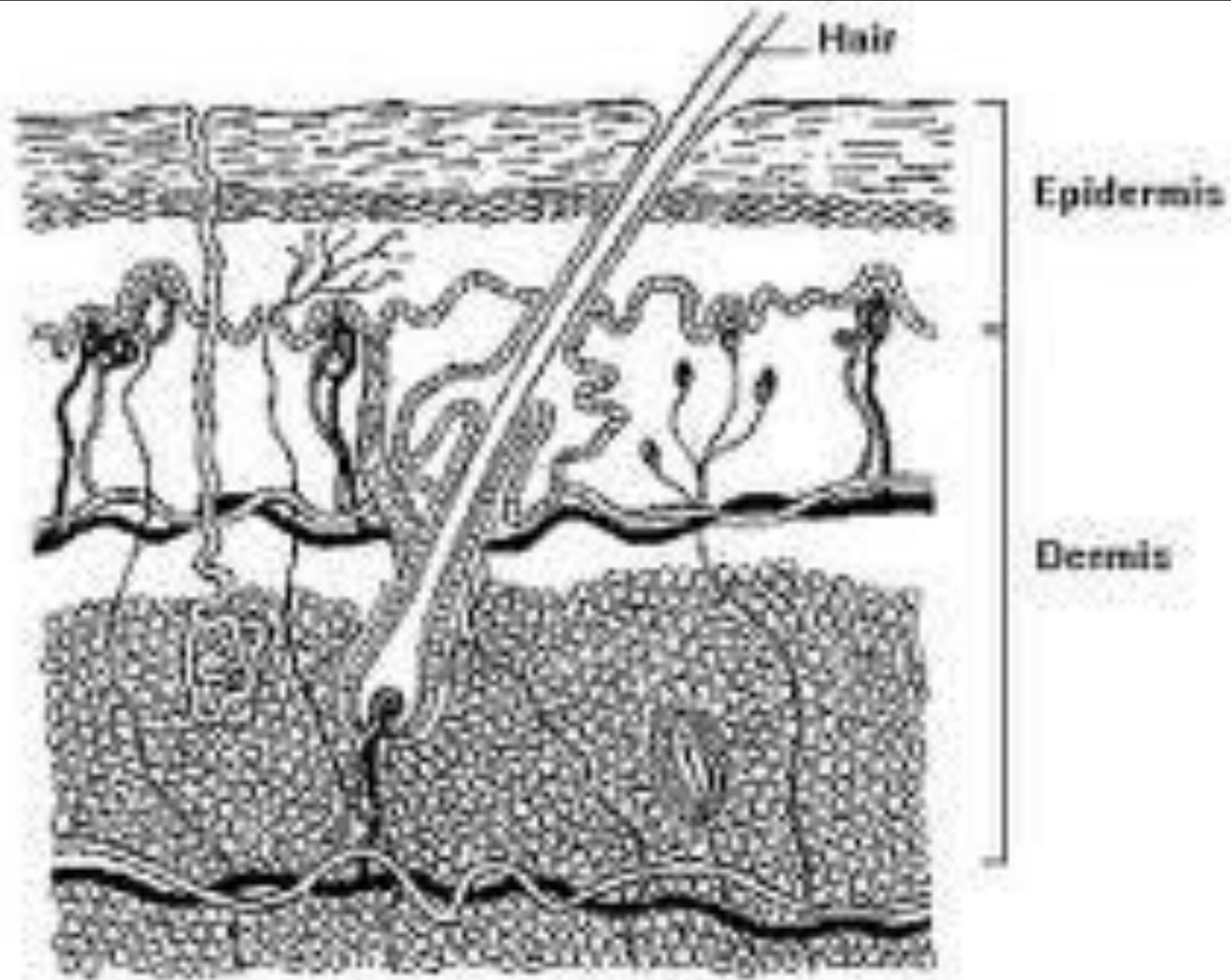












Parietal
bone

Frontal bone

Temporal
bone

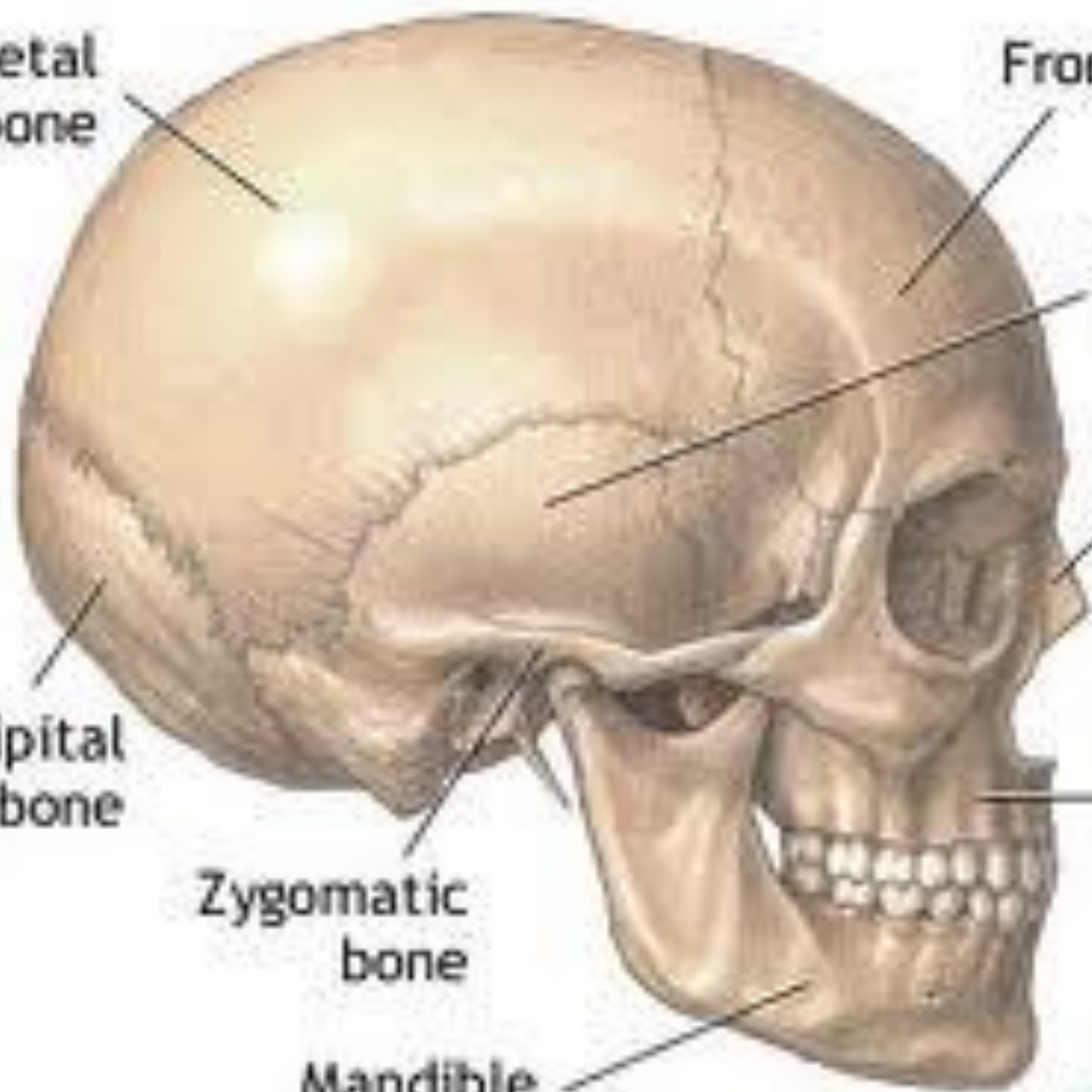
Nasal
bone

Maxilla

Occipital
bone

Zygomatic
bone

Mandible

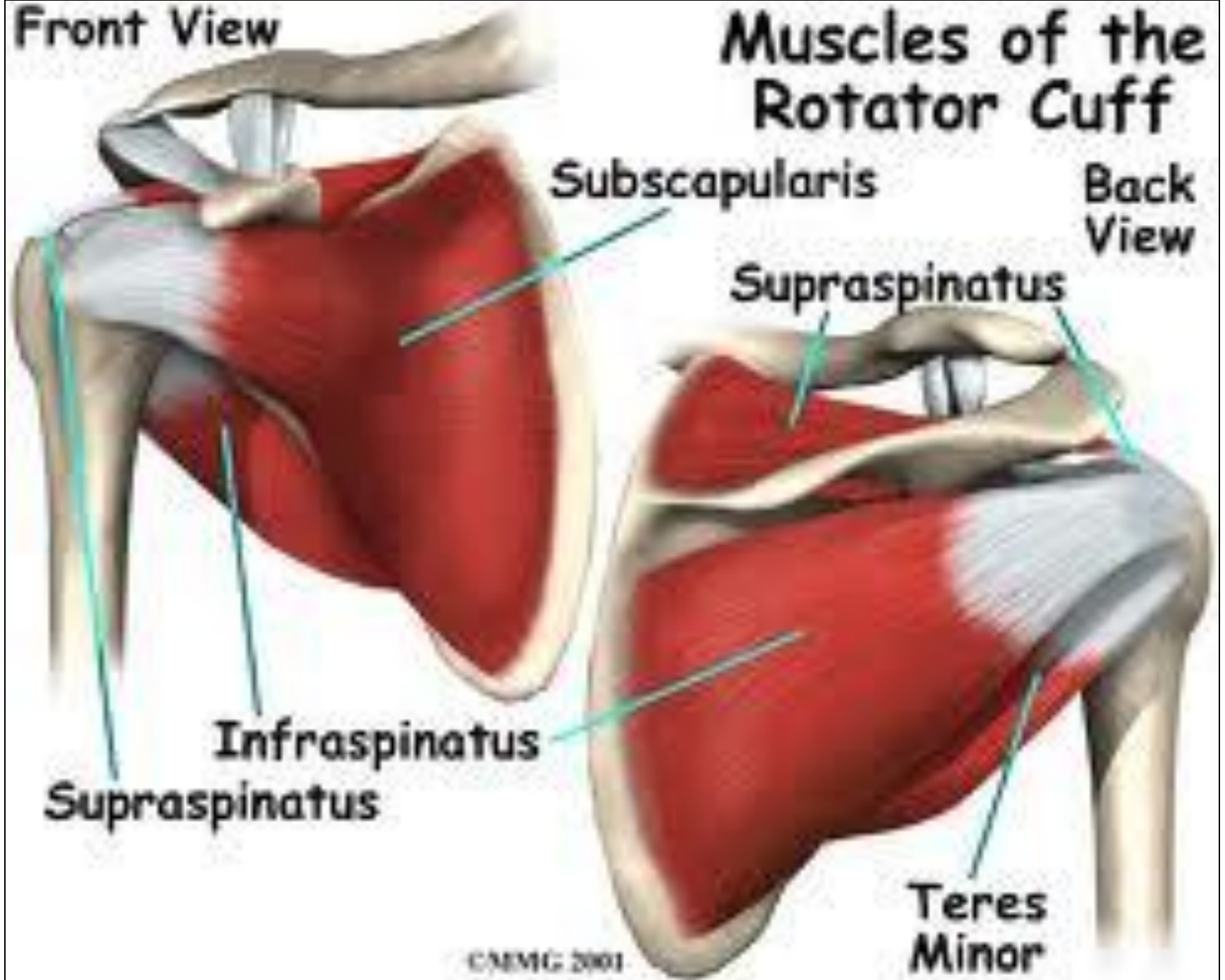


Scapular Muscles

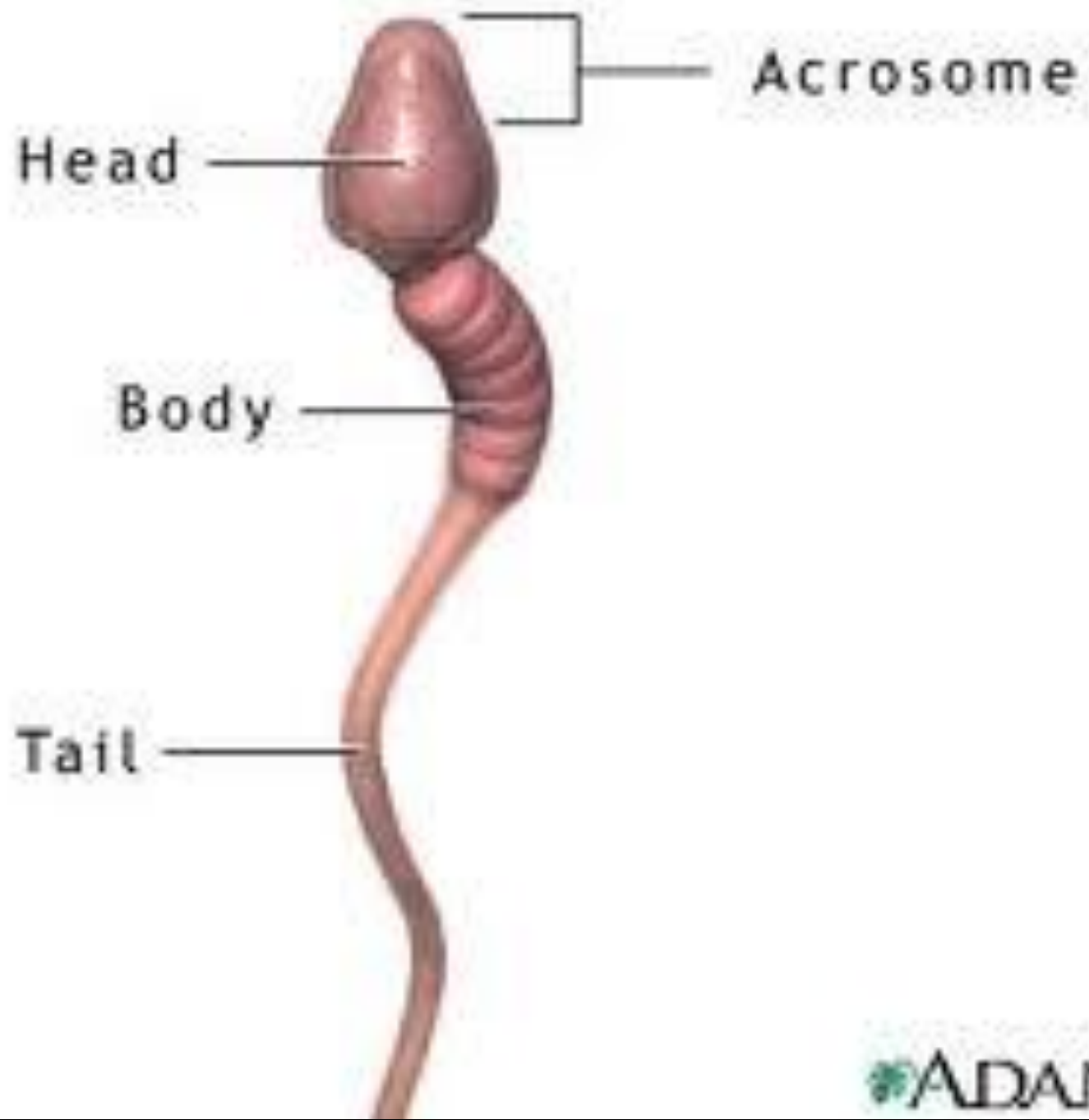


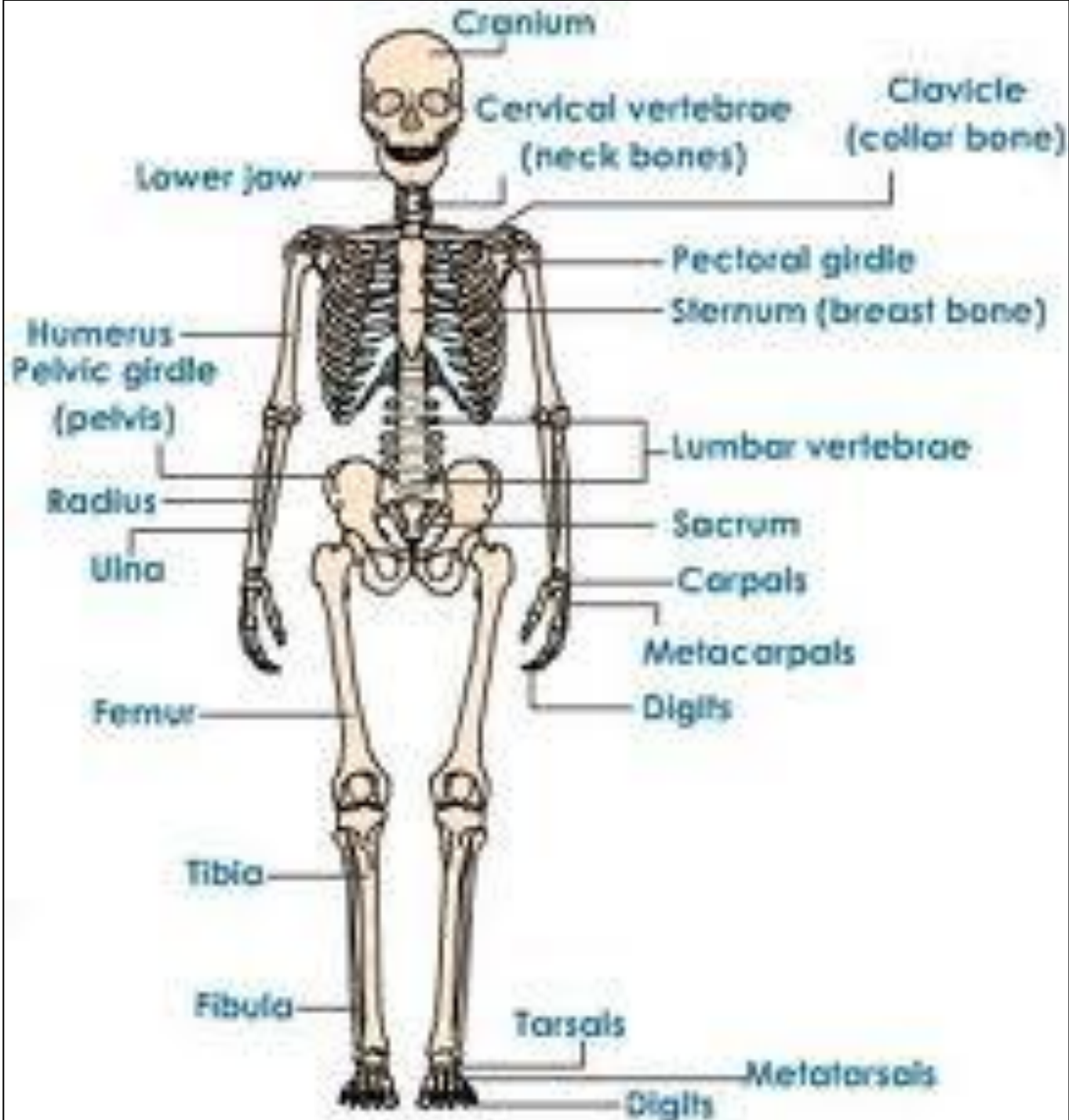


Muscles of the Rotator Cuff







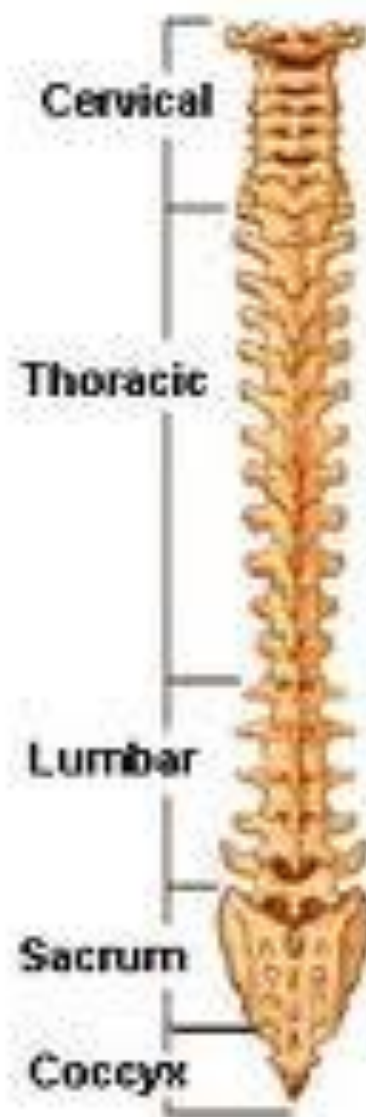




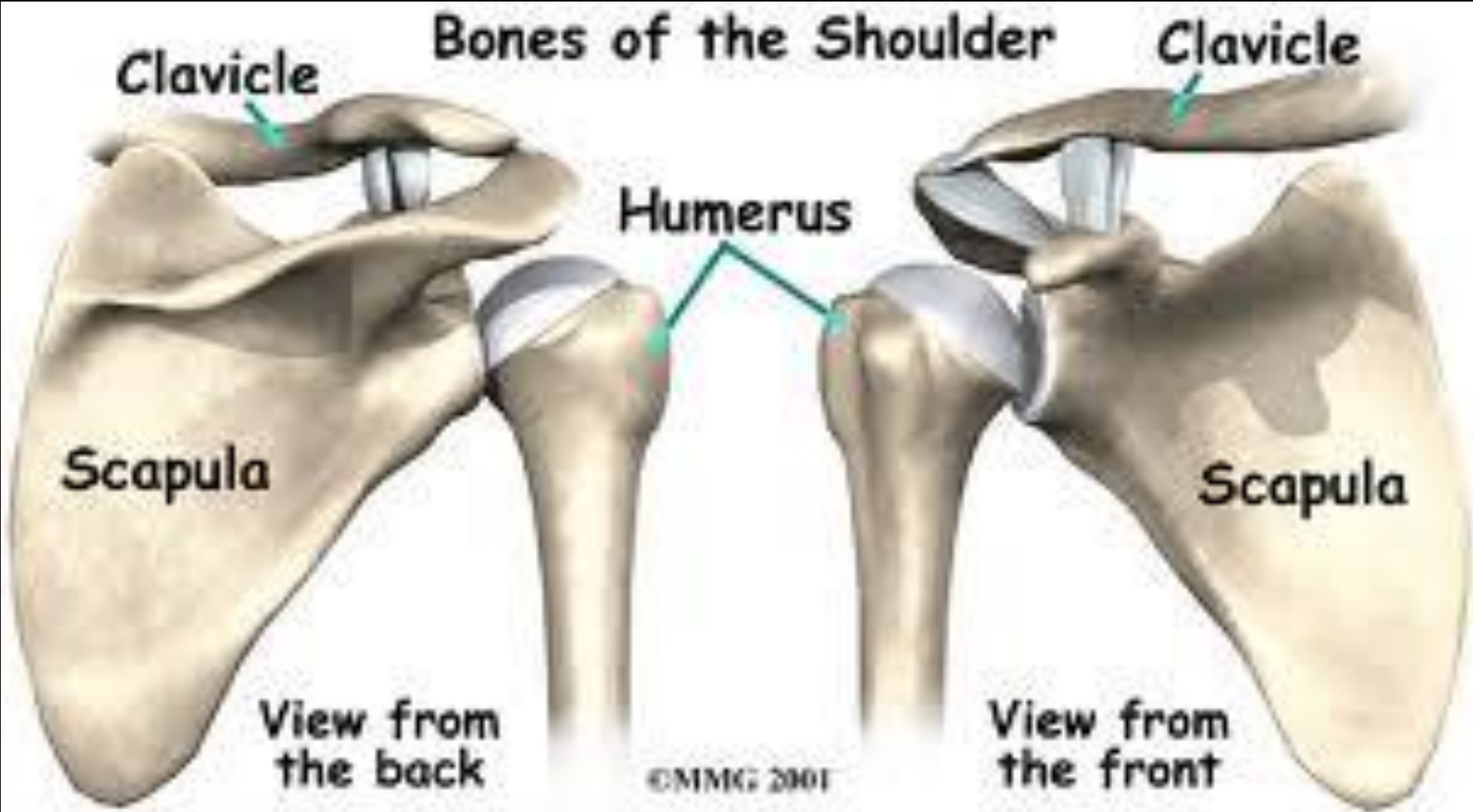
**Lateral (Side)
Spinal Column**

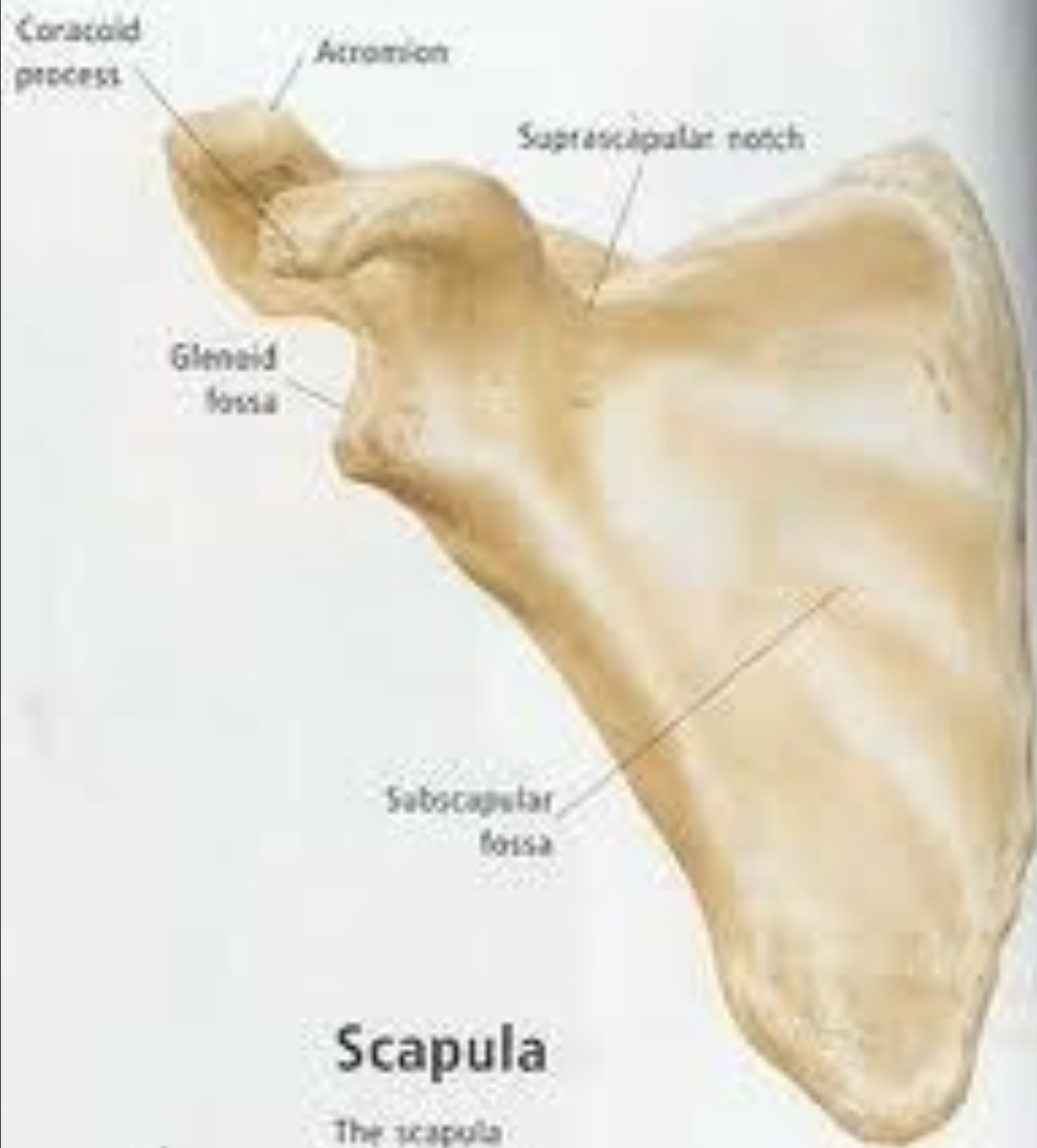


**Posterior (Back)
Spinal Column**



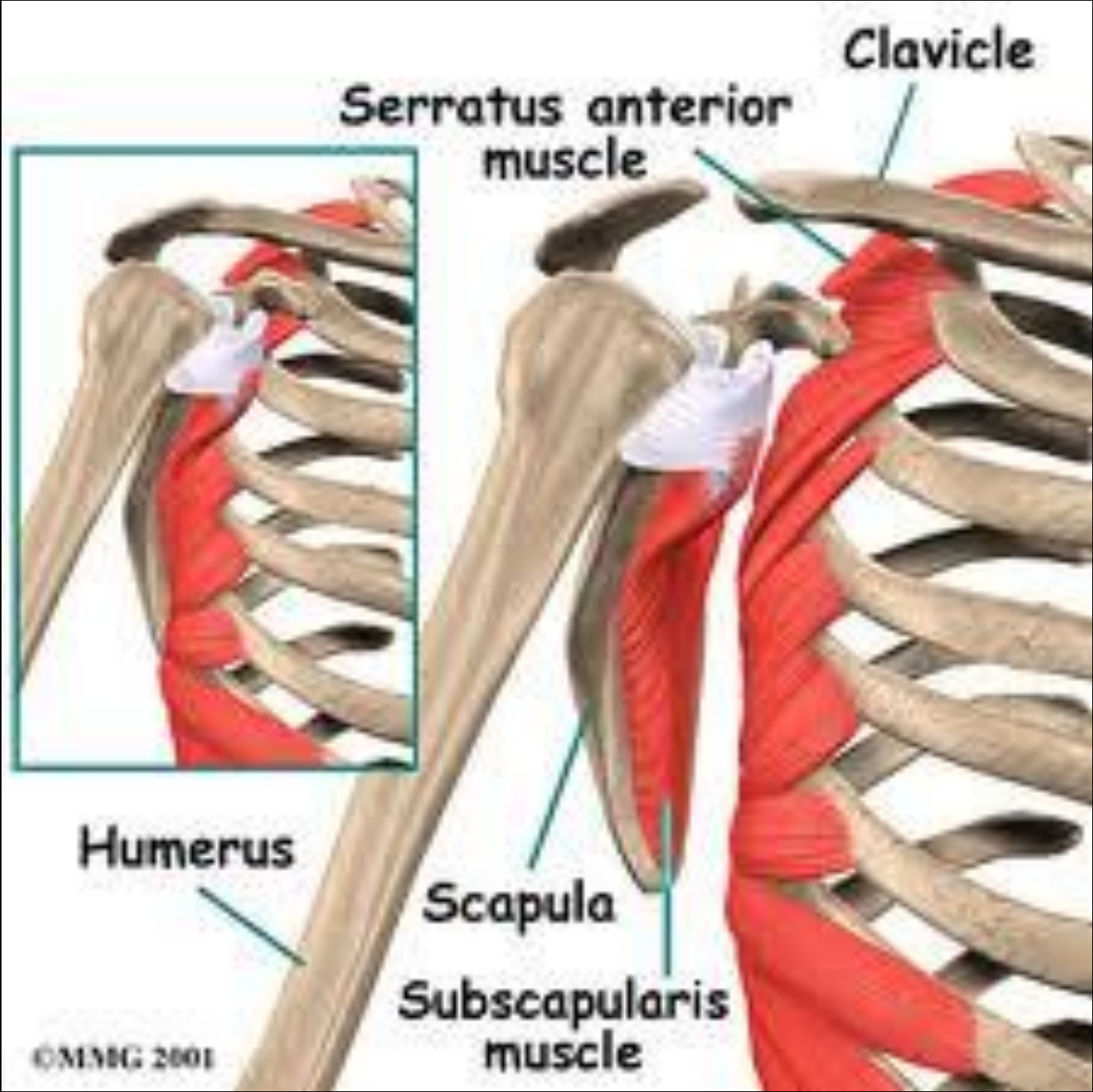
Bones of the Shoulder





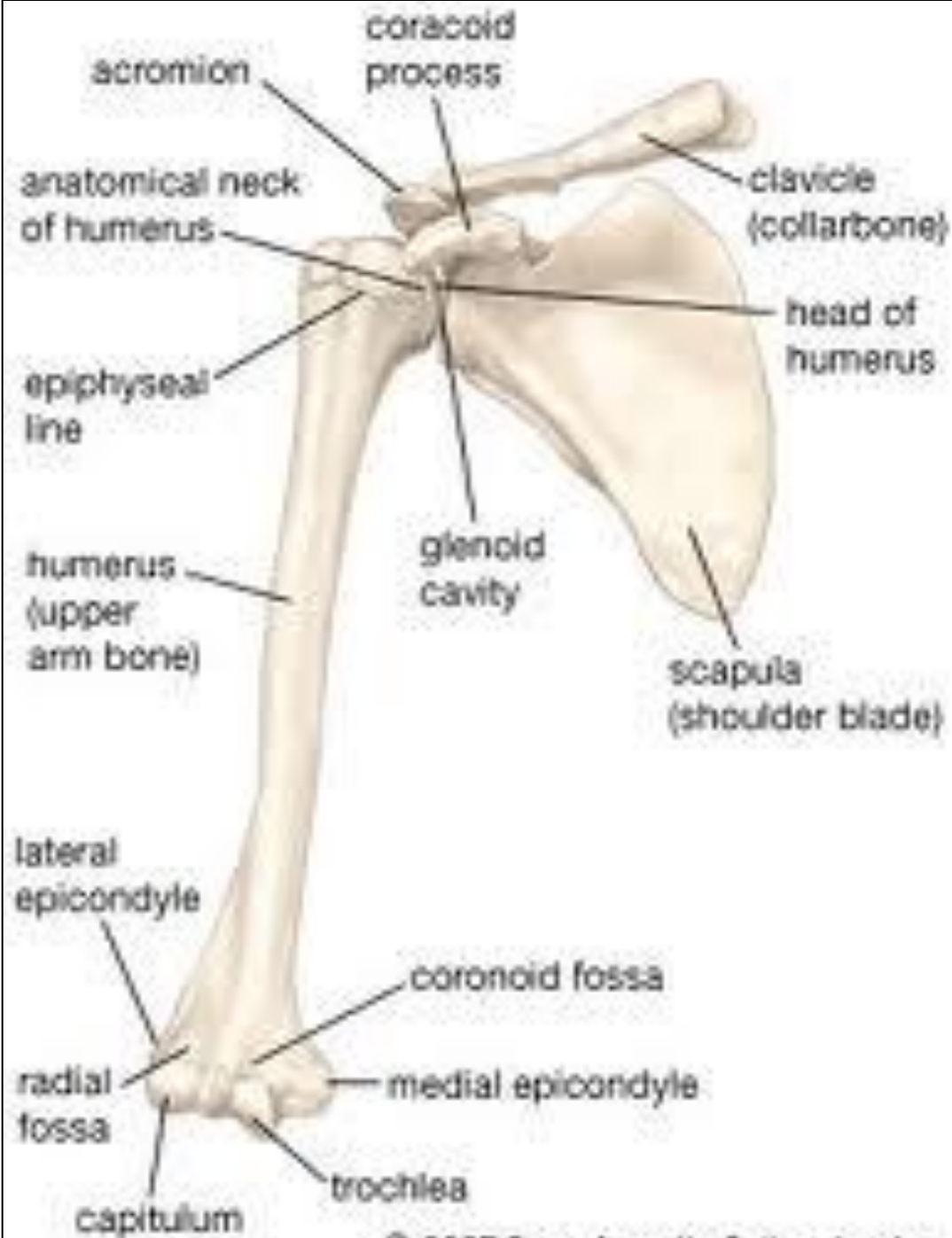
Scapula

The scapula (shoulder blade) is a flat triangular bone located in the back of the shoulder.



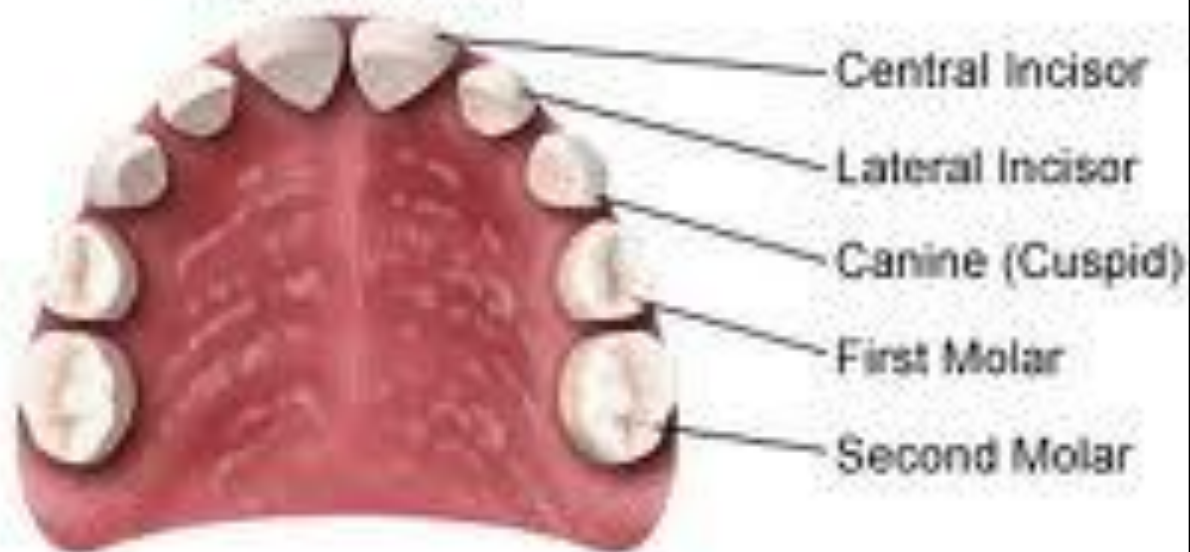
serratus
anterior





Baby Teeth

Upper Teeth



Upper

Child 2-5 years old



Lower



- Central incisor
- Lateral incisor
- Cuspid (canine)
- First molar
- Second molar



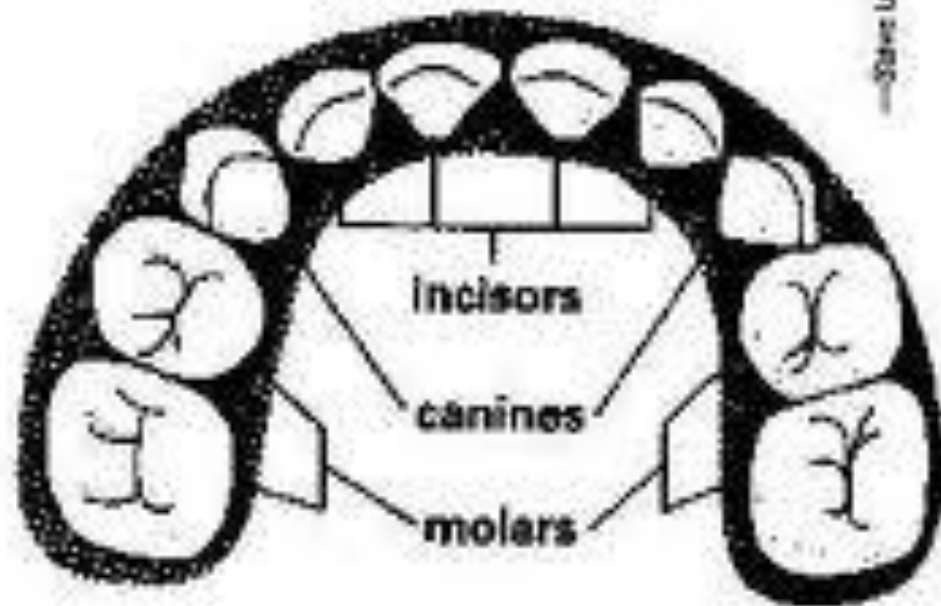
Deciduous
(milk) teeth

Buds of
permanent
teeth



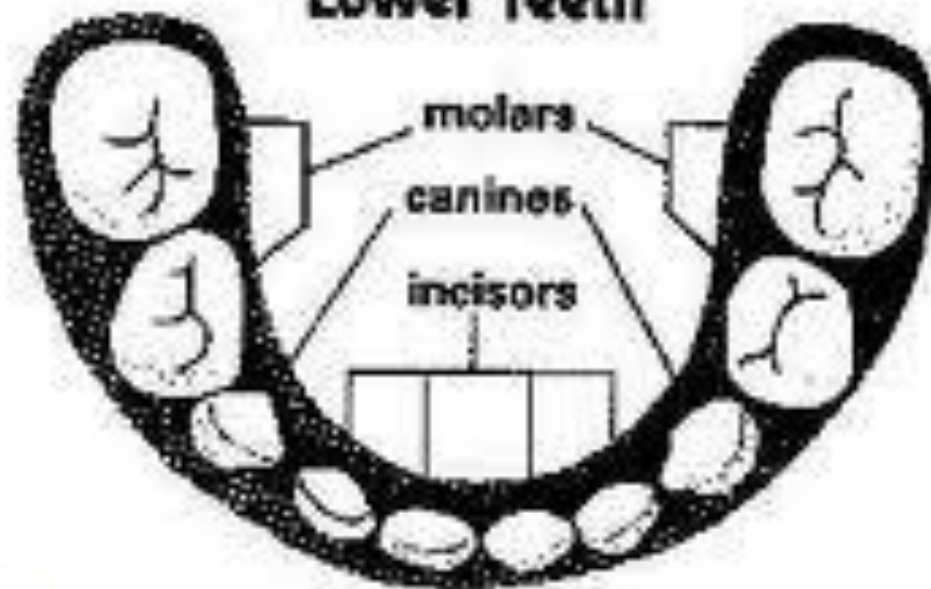
Malocclusion
and unbalanced
facial profile

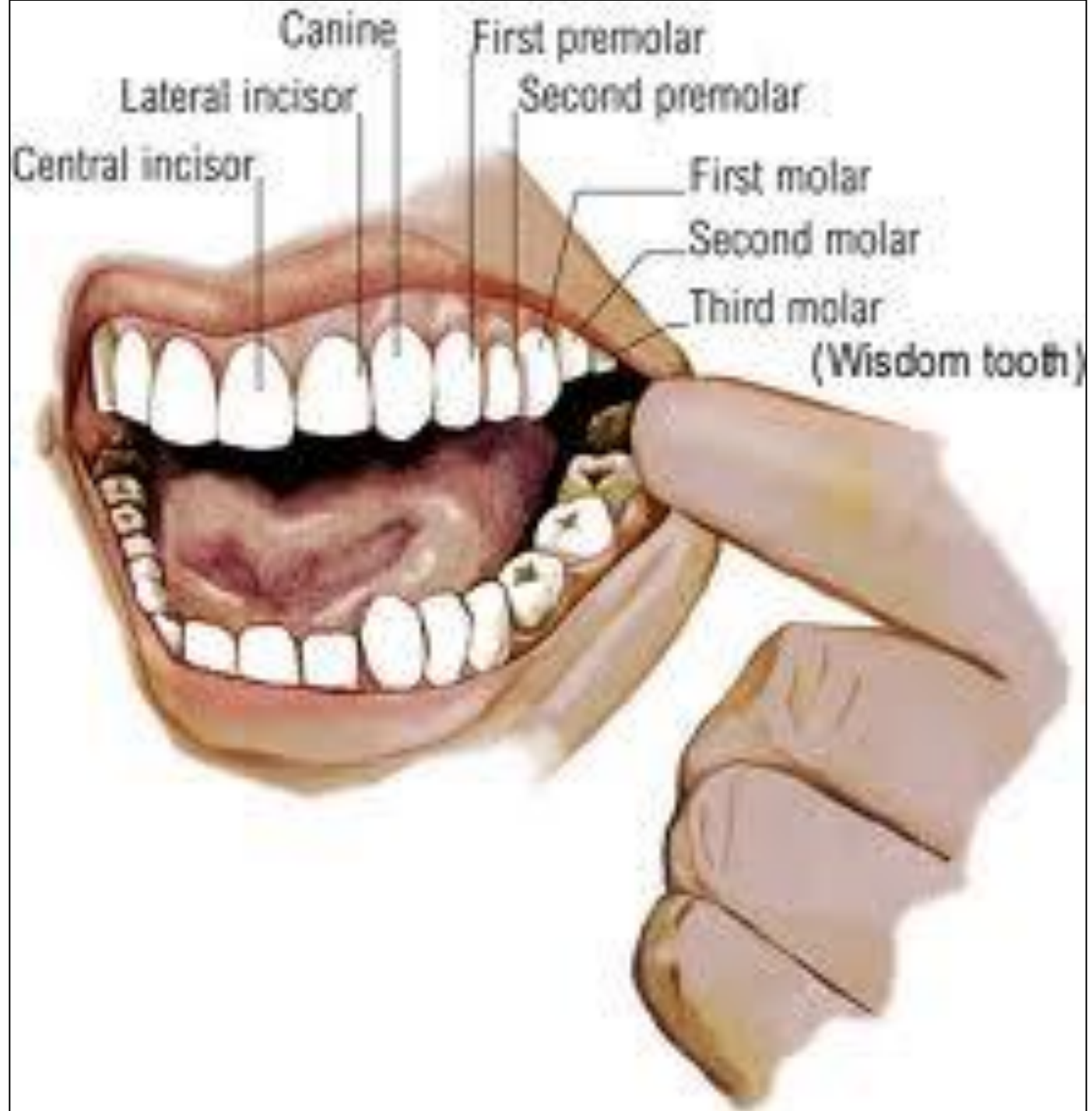
Upper Teeth



—Steve Lefkowitz

Lower Teeth





Upper



Lower



Adult 21-25 years old



Permanent
(adult)
teeth



Central incisor



Lateral incisor



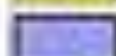
Cuspid (canine)



First premolar (bicuspid)



Second premolar (bicuspid)



First molar



Second molar



Third molar

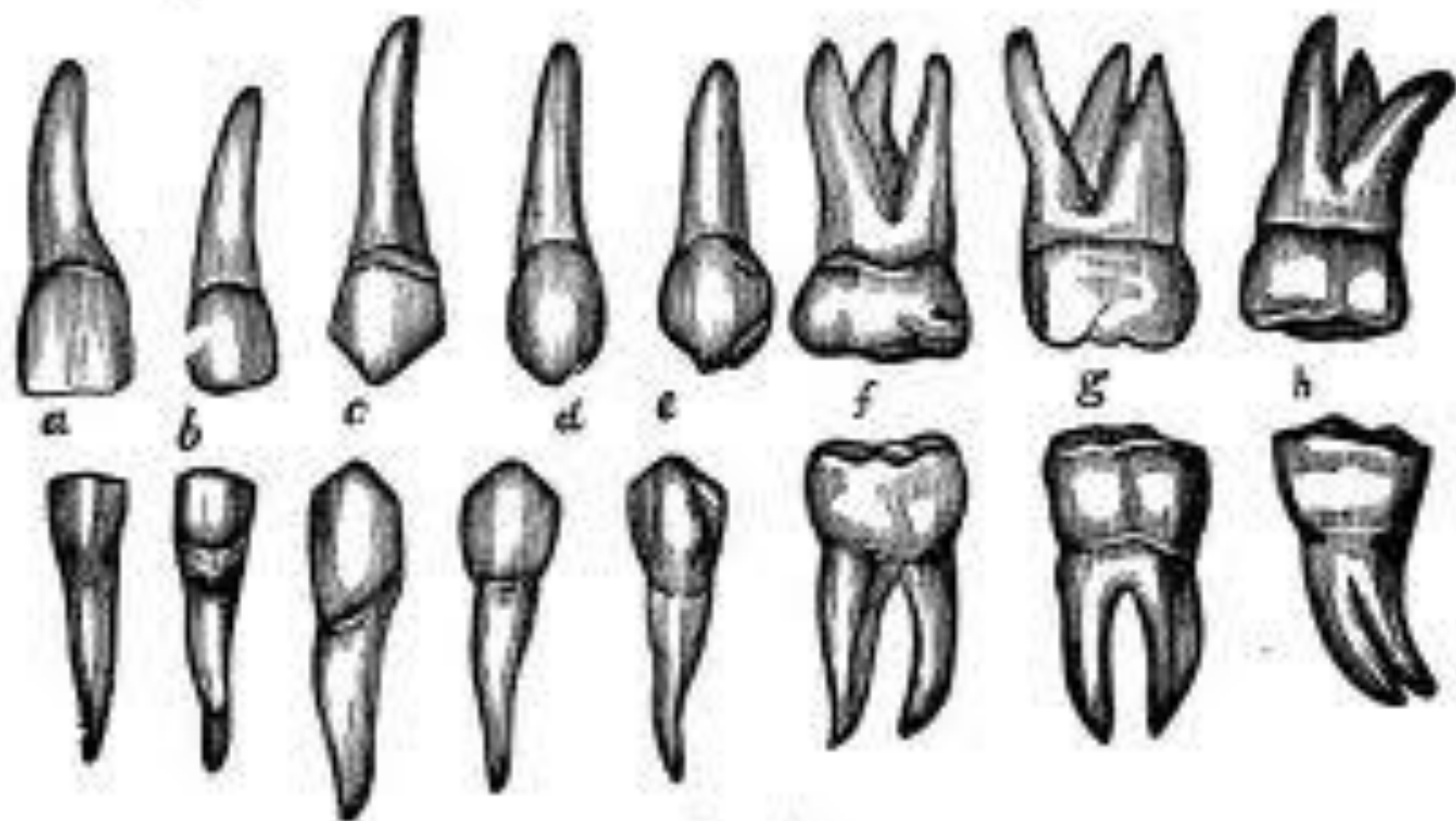


Fig. 27.

Thoracic Vertebrae

Axial (Overhead) View



Lateral (Side) View



Crown

Root

Enamel

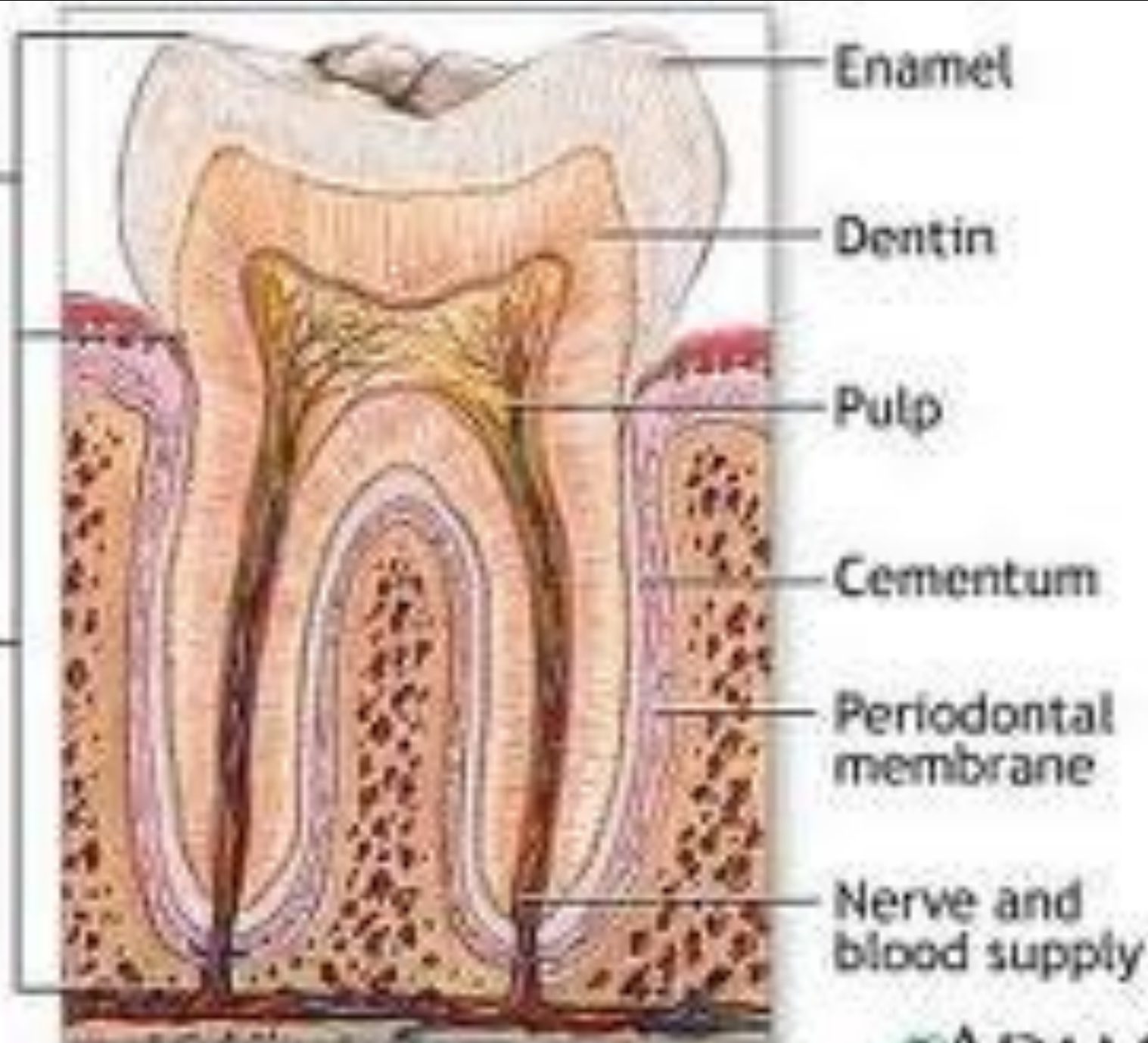
Dentin

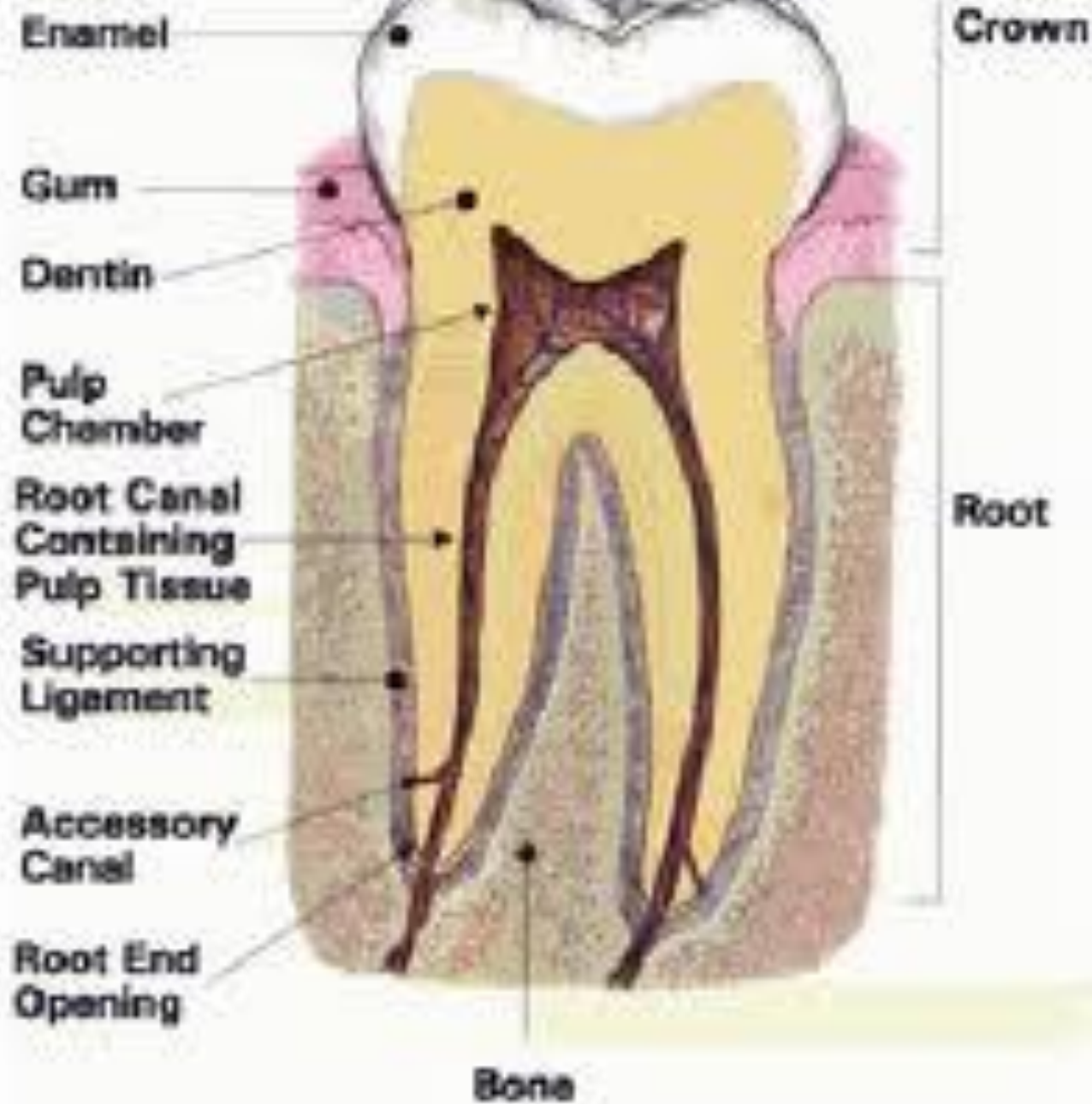
Pulp

Cementum

Periodontal
membrane

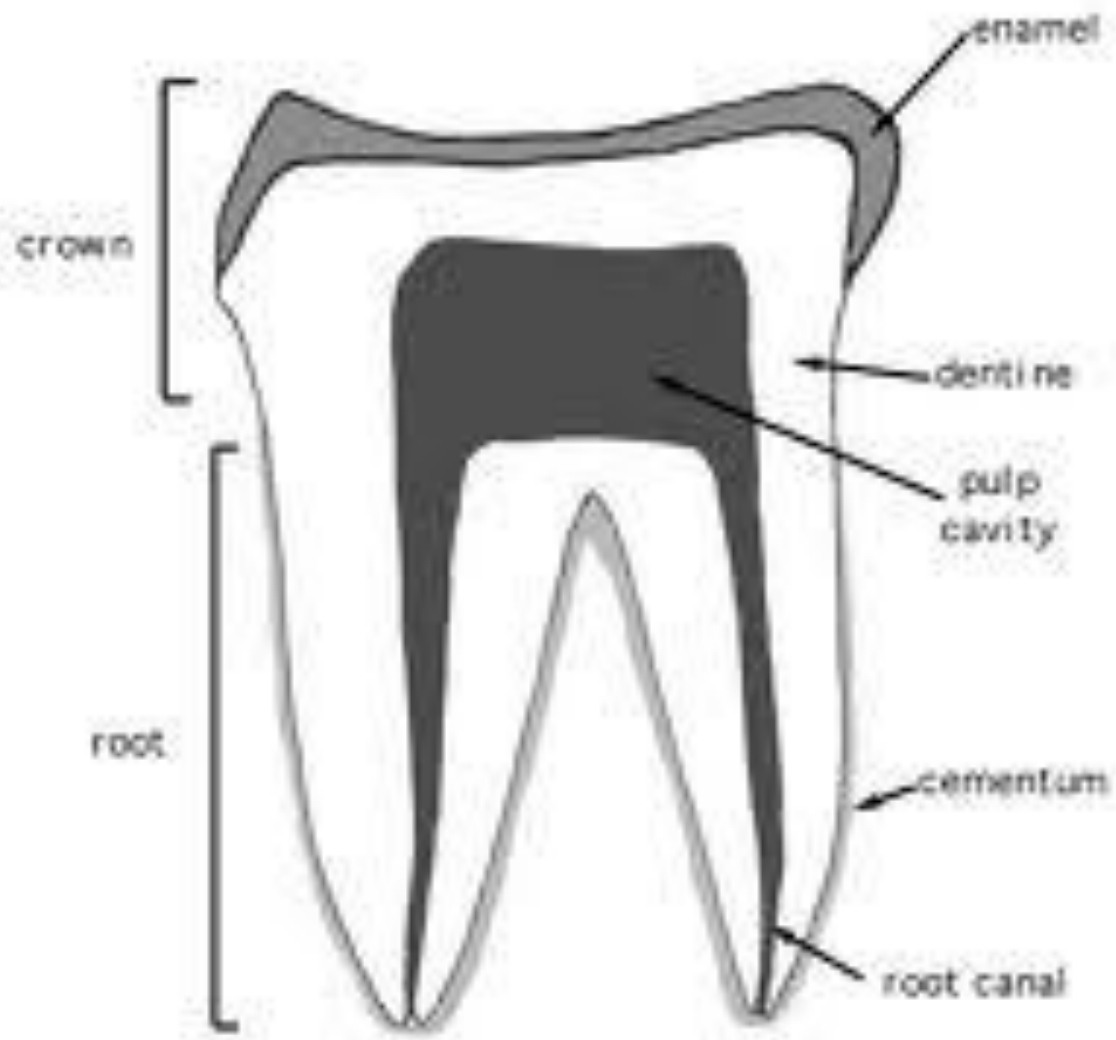
Nerve and
blood supply

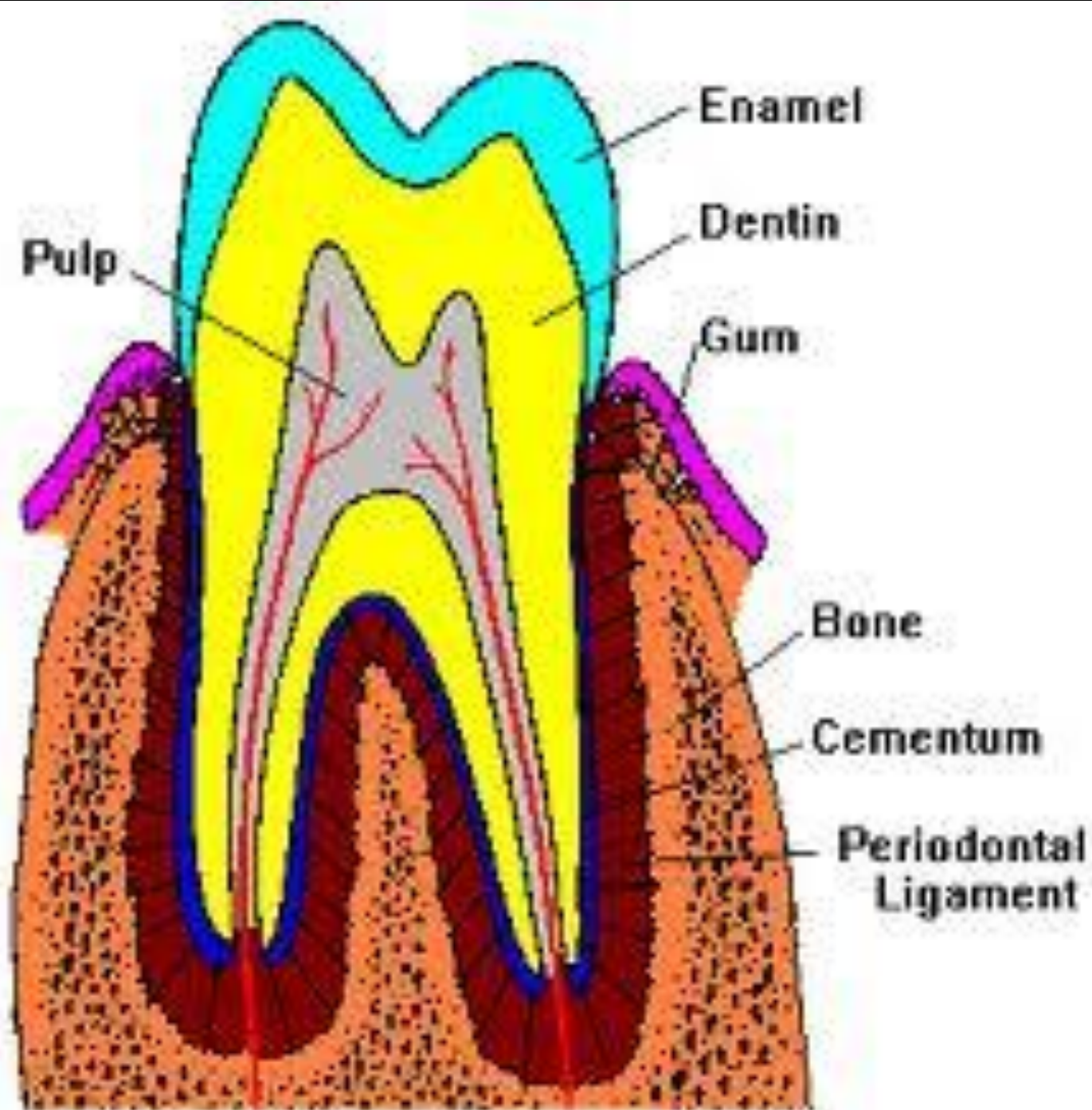


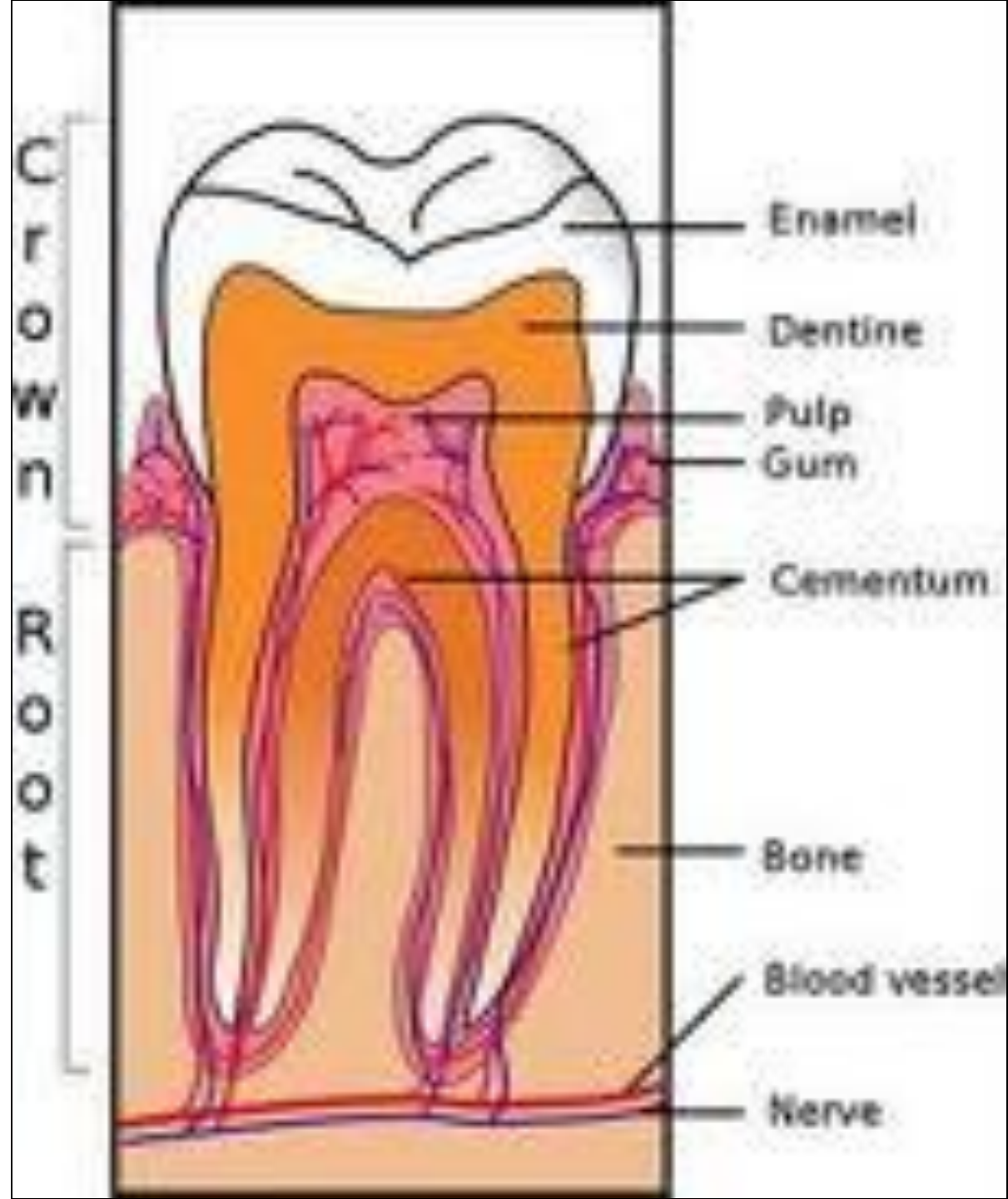


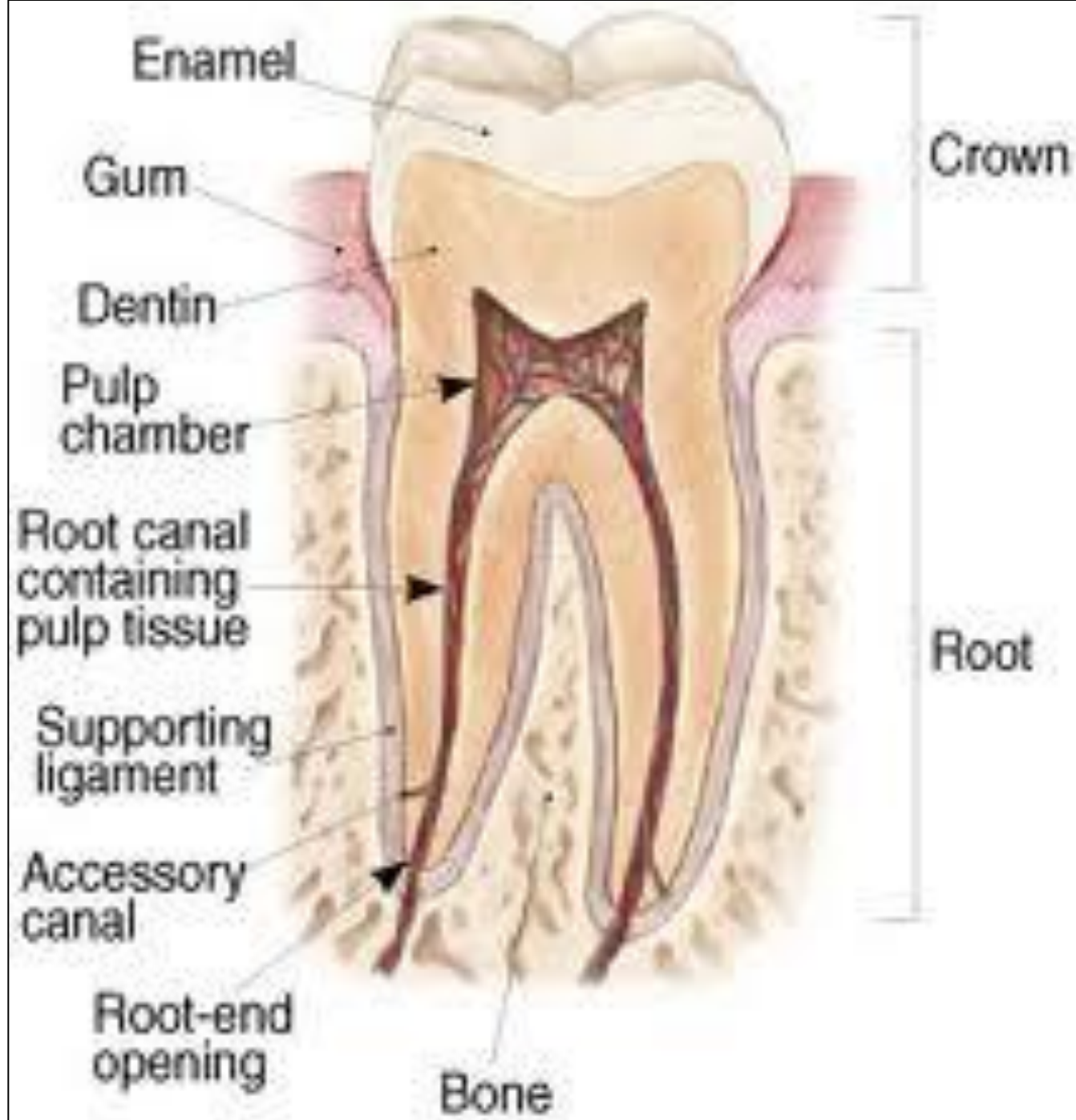


Cross section of a tooth



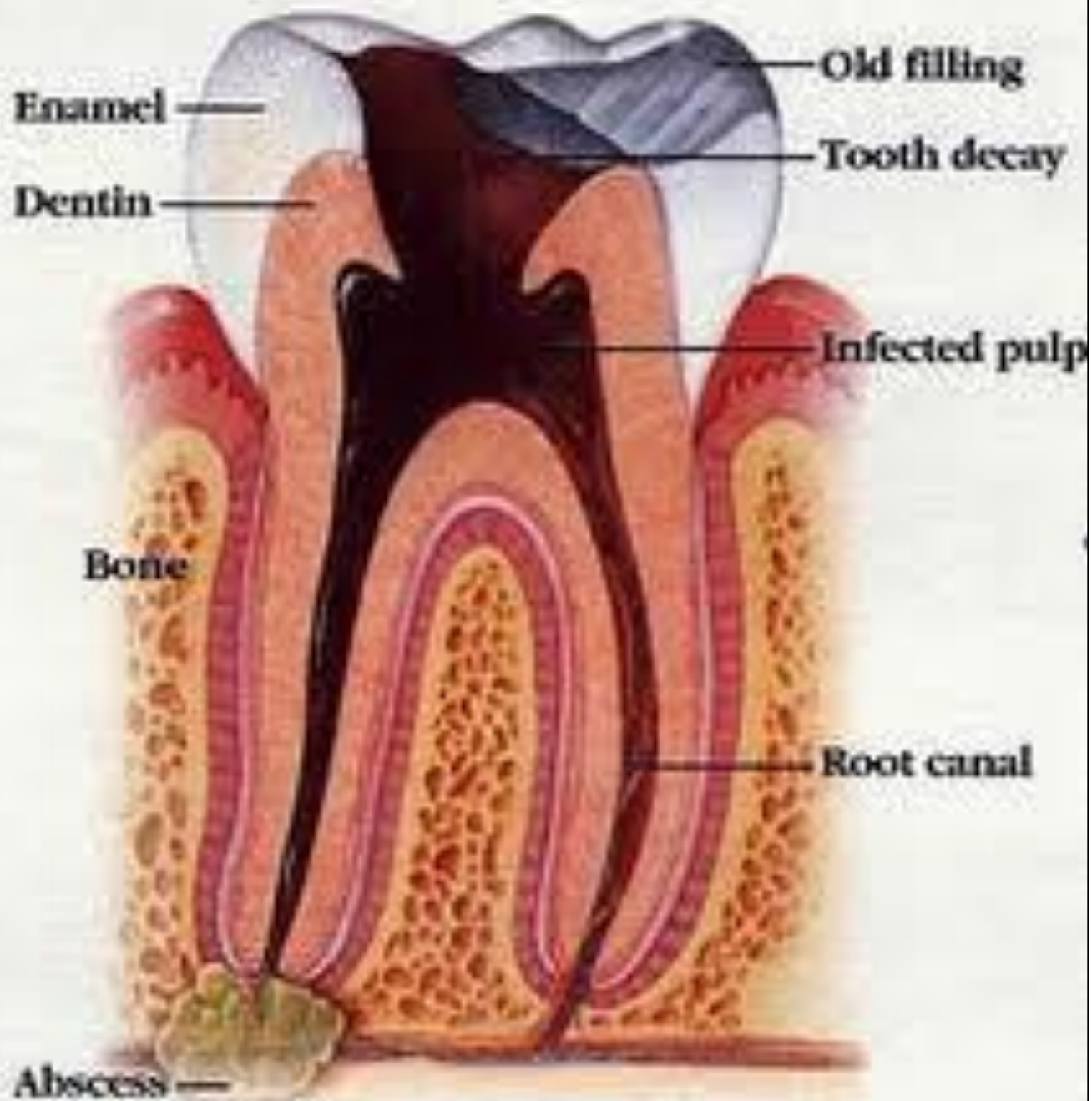














Infected Pulp Tissue

Inflamed Pulp Tissue

Decay

**Infected
Pulp**

**Inflamed
Pulp**

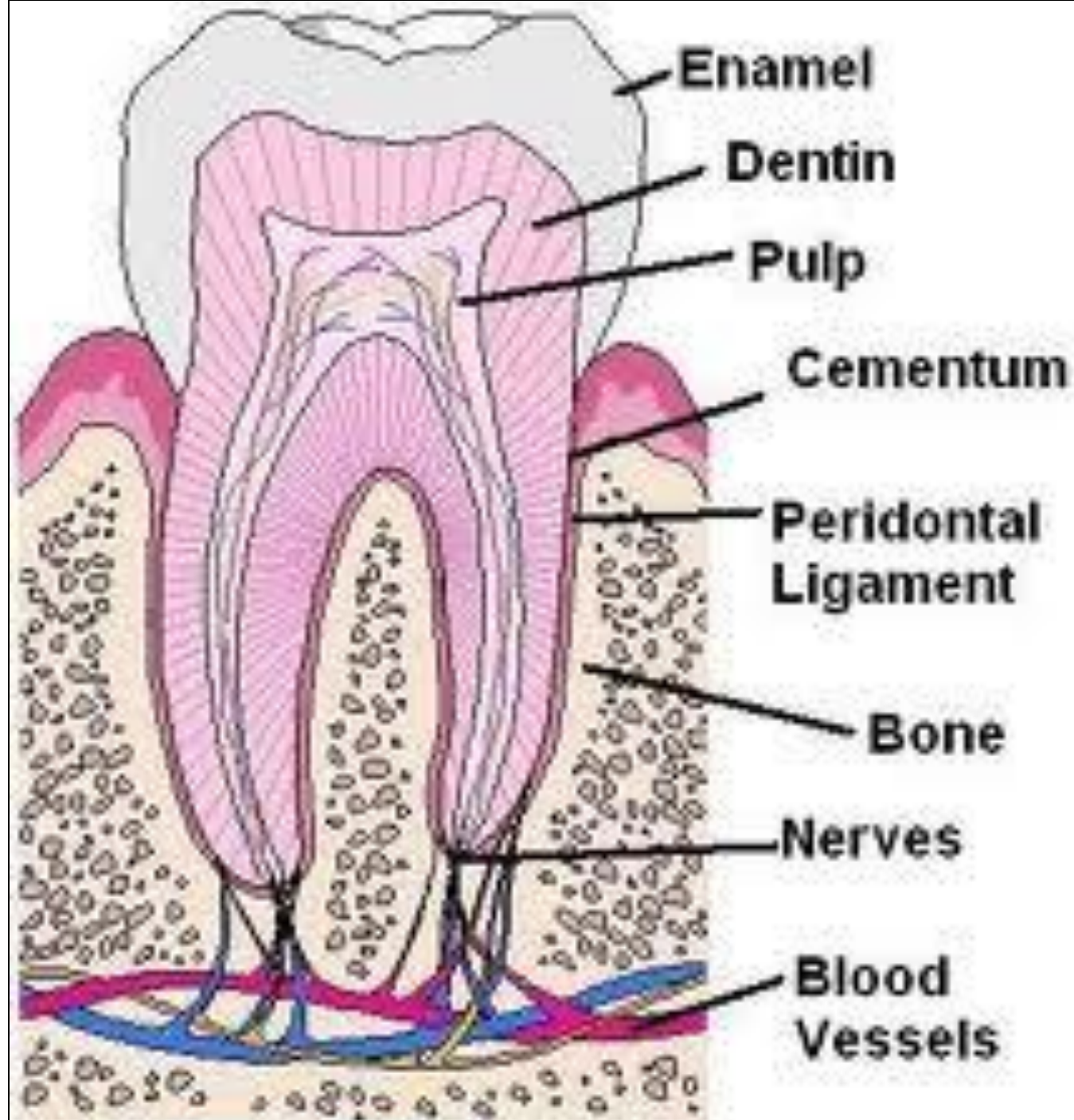
Abscess

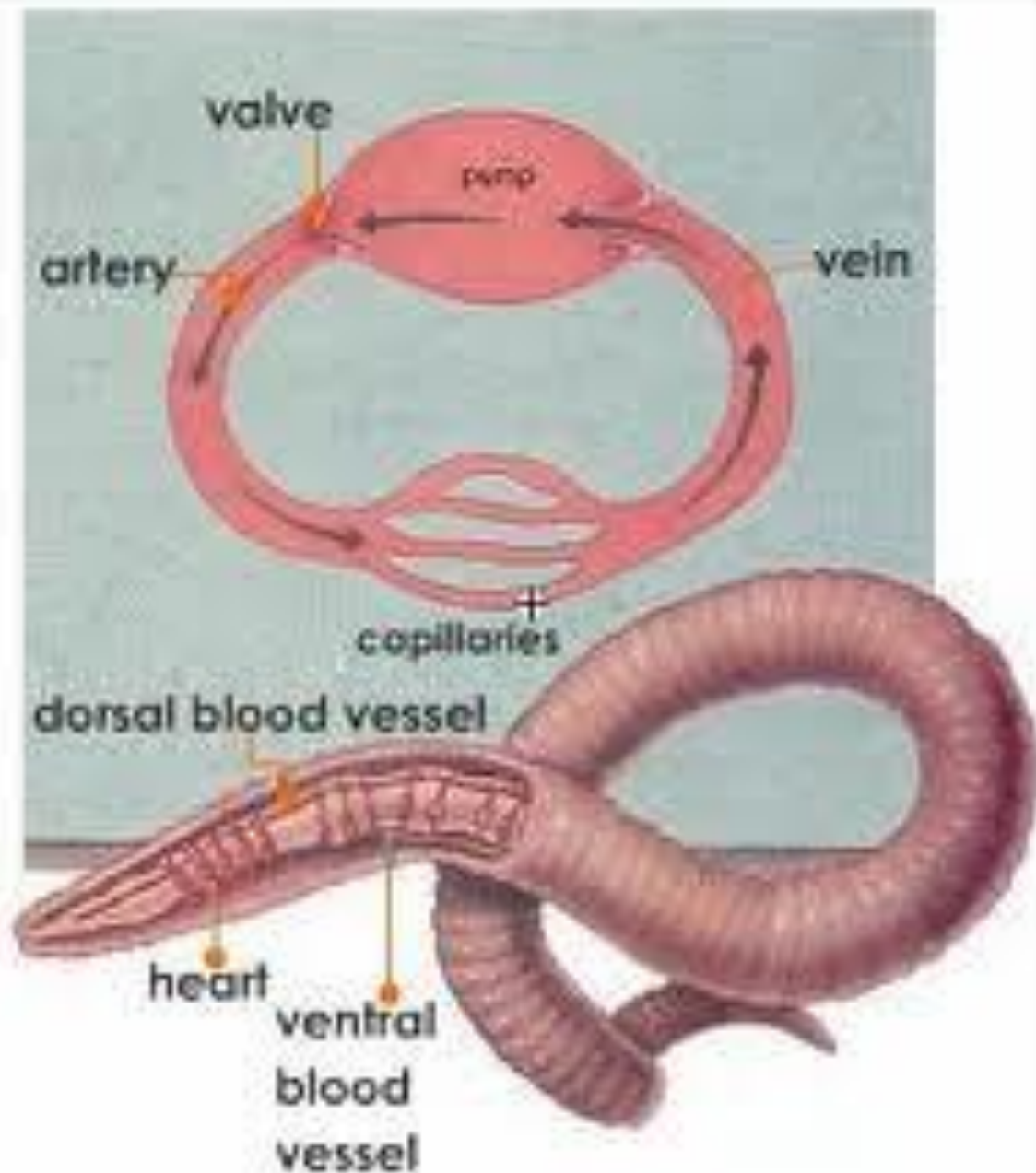
**Inflamed
Ligament**



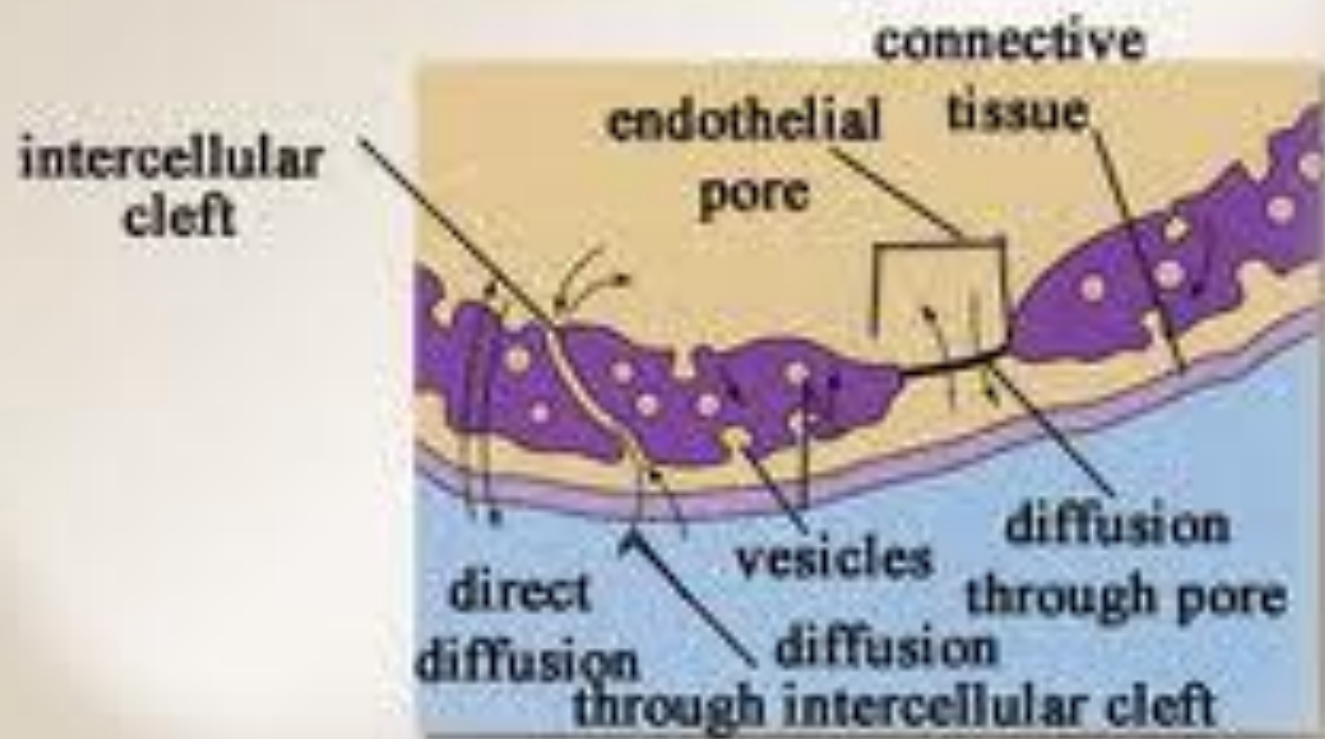
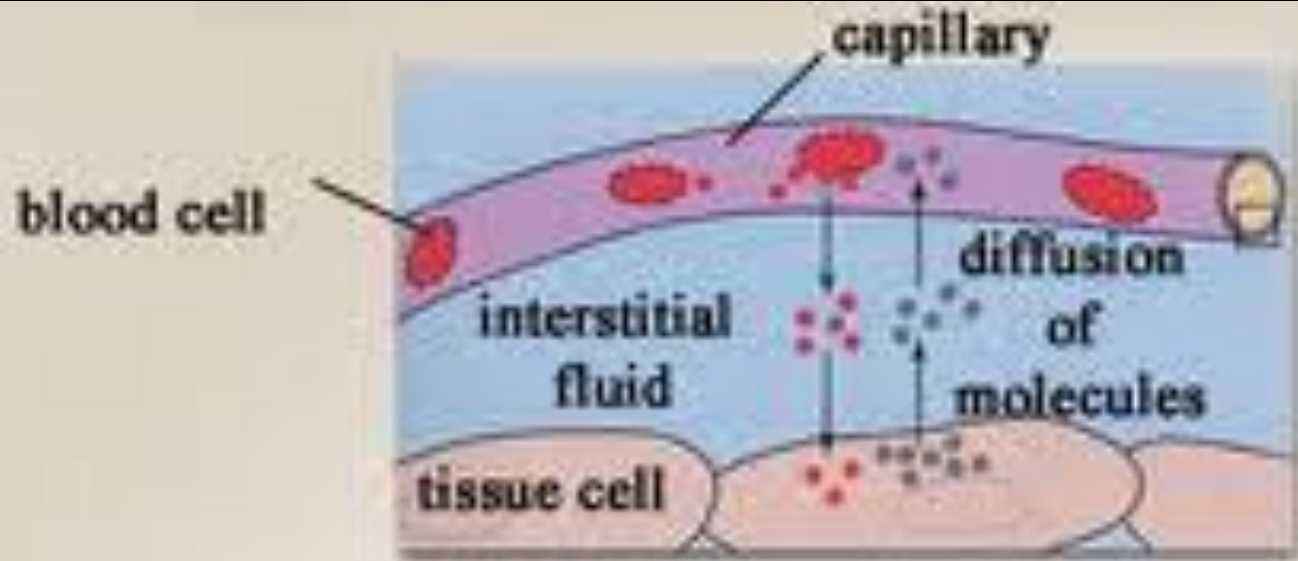


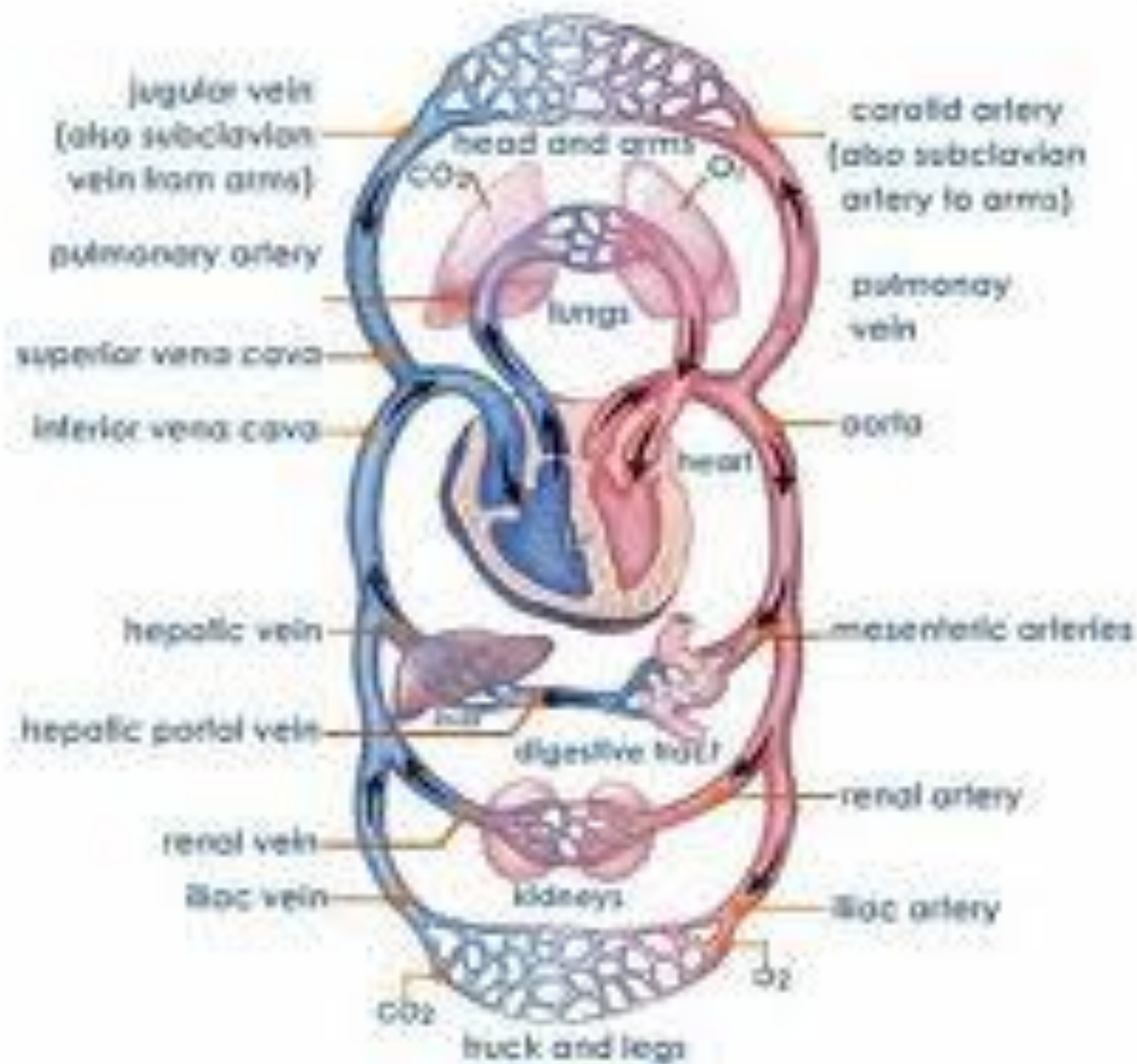
← Front of mouth.





Closed Circulatory System





Path of Blood

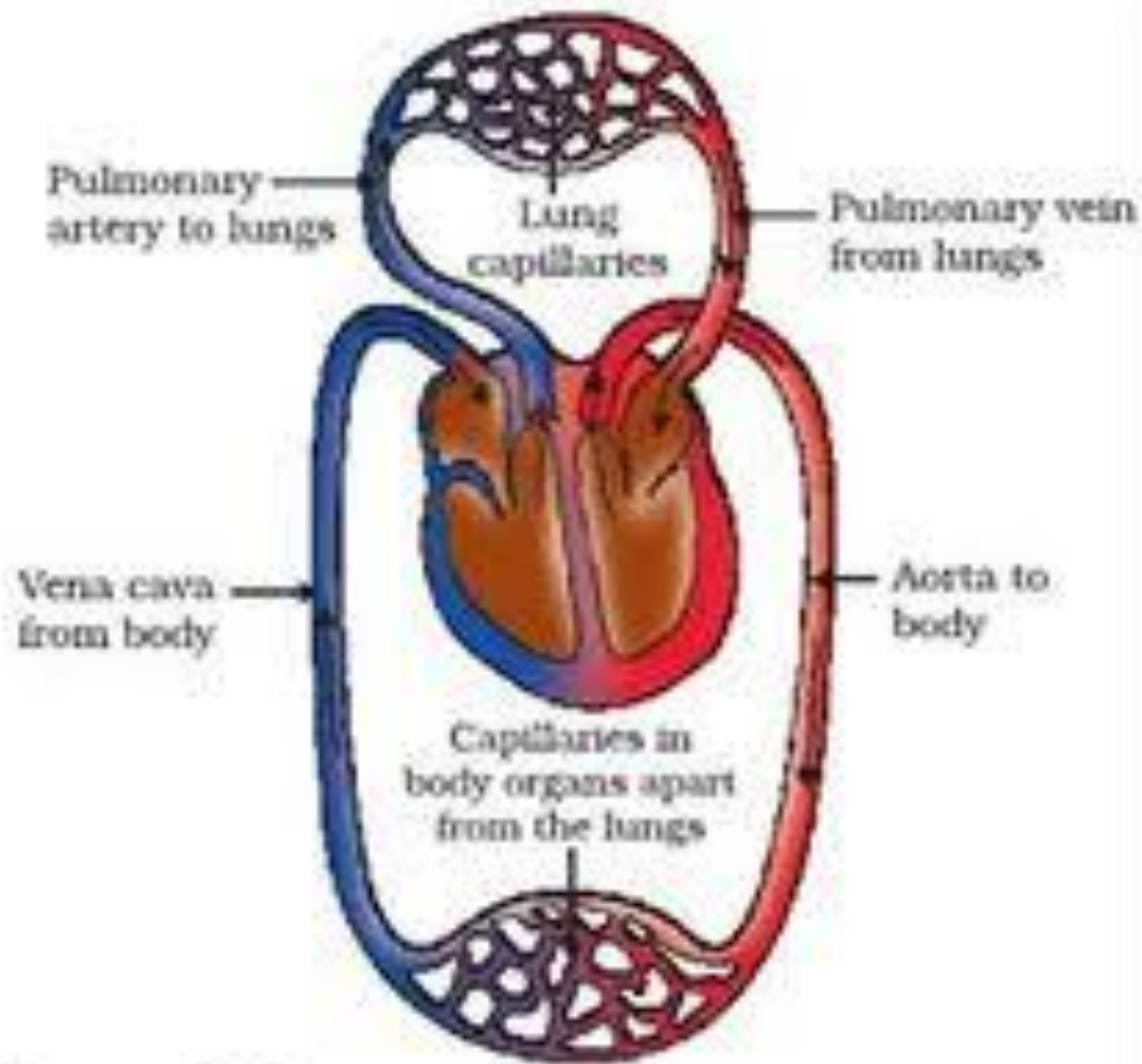


Figure 6.11

Schematic representation of transport and exchange of oxygen and carbon dioxide

The Human Respiratory System

