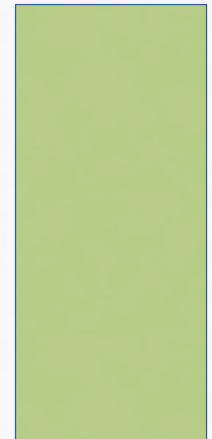


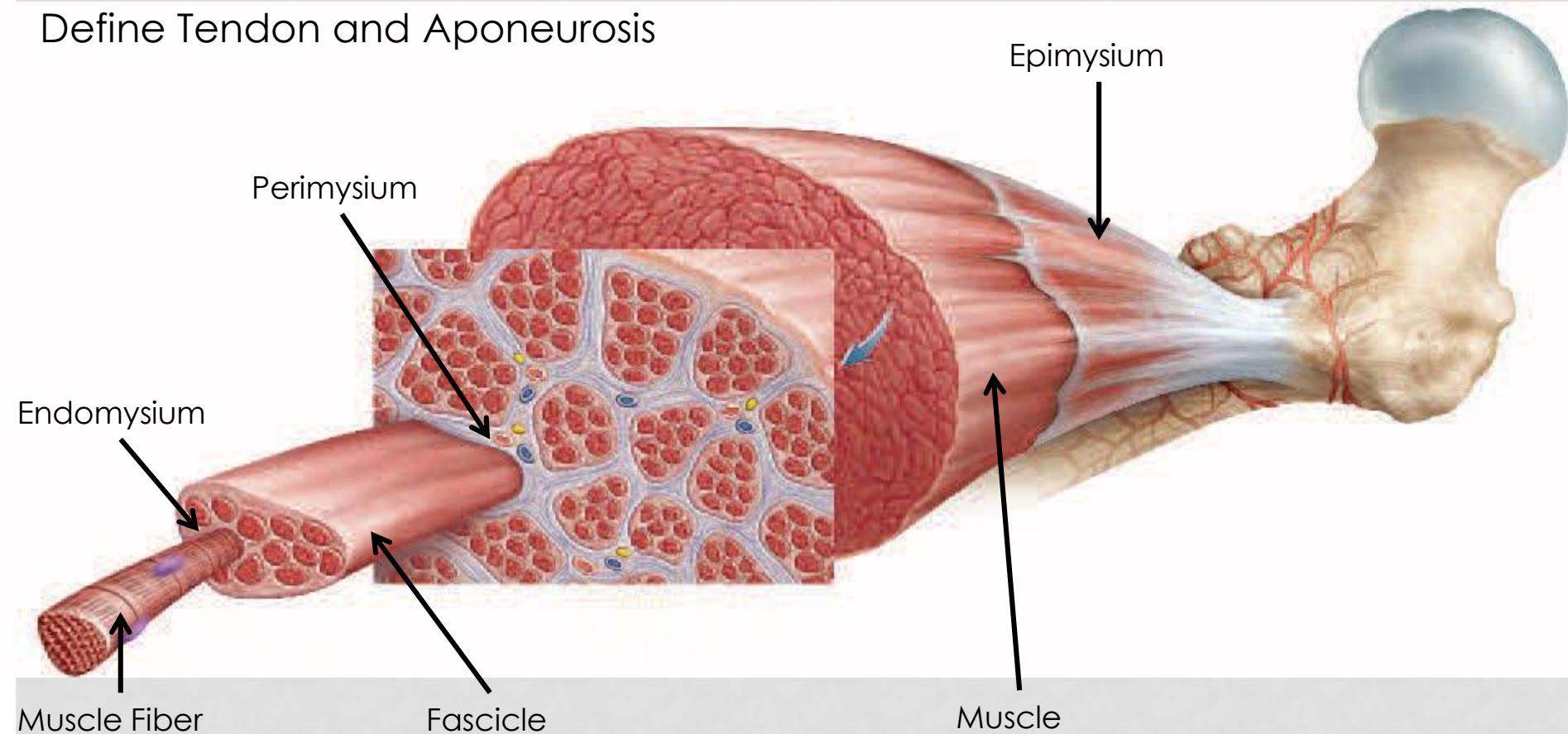
ANATOMY I LAB PRACTICAL II

REVIEW



SKELETAL MUSCLE ANATOMY

Define Tendon and Aponeurosis



Tendon: Connective tissue
attaching muscles to bones

Aponeurosis: Broad, sheet-like
tendon

MUSCULAR SYSTEM TERMS

Define:

- Flexion
 - Movement towards the body
- Extension
 - Movement away from the body
- Abduction
 - Movement away from the midline
- Adduction
 - Movement towards the midline
- Pronation
 - To turn the hand so the palm faces downward
- Supination
 - To turn the hand so the palm faces upward
- Dorsiflexion
 - To tilt the foot upward (dorsally)
- Plantar Flexion
 - To tilt the foot downward

What are agonists?

Muscles that work together

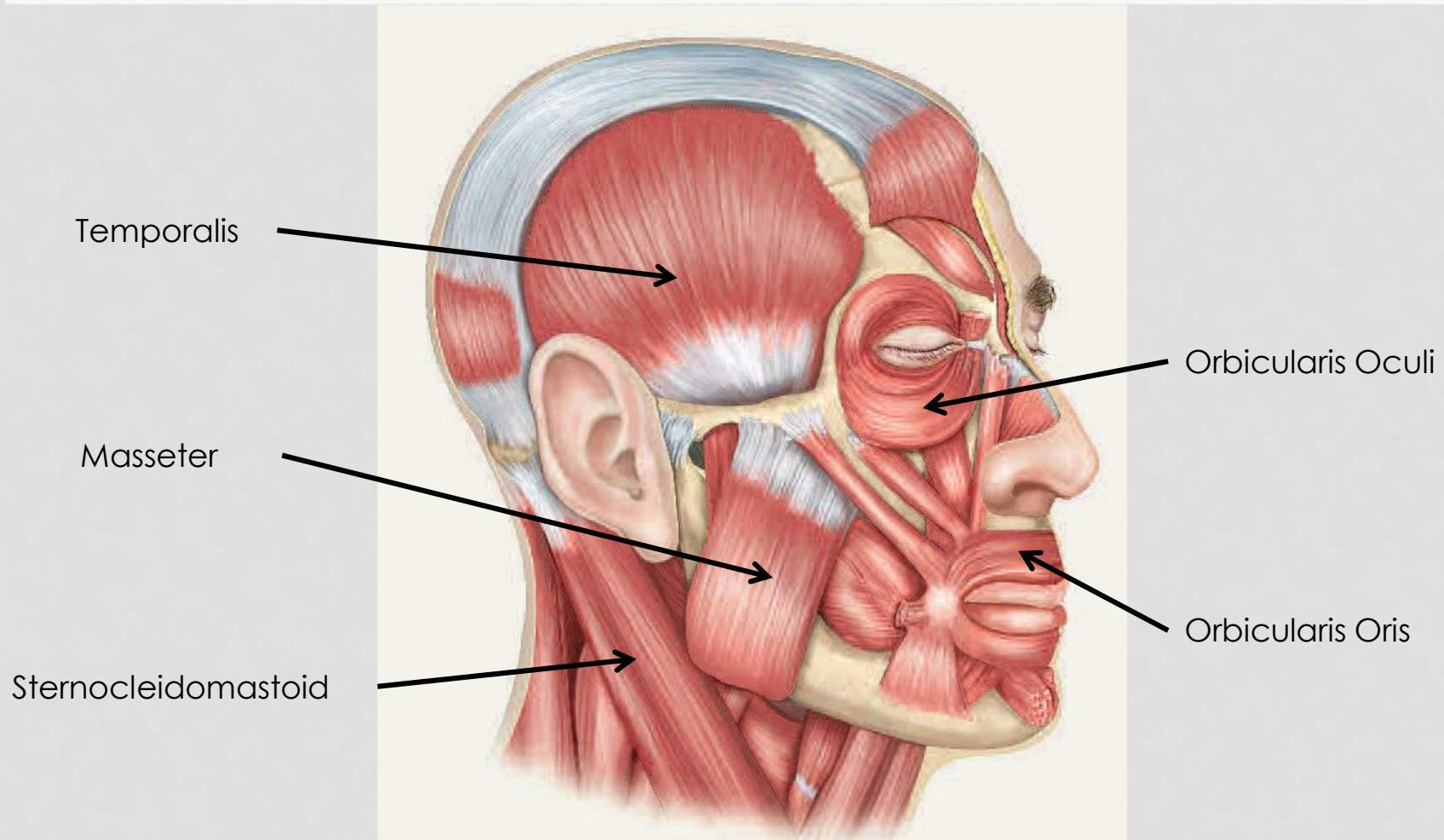
What are antagonists?

Muscles that work against each other

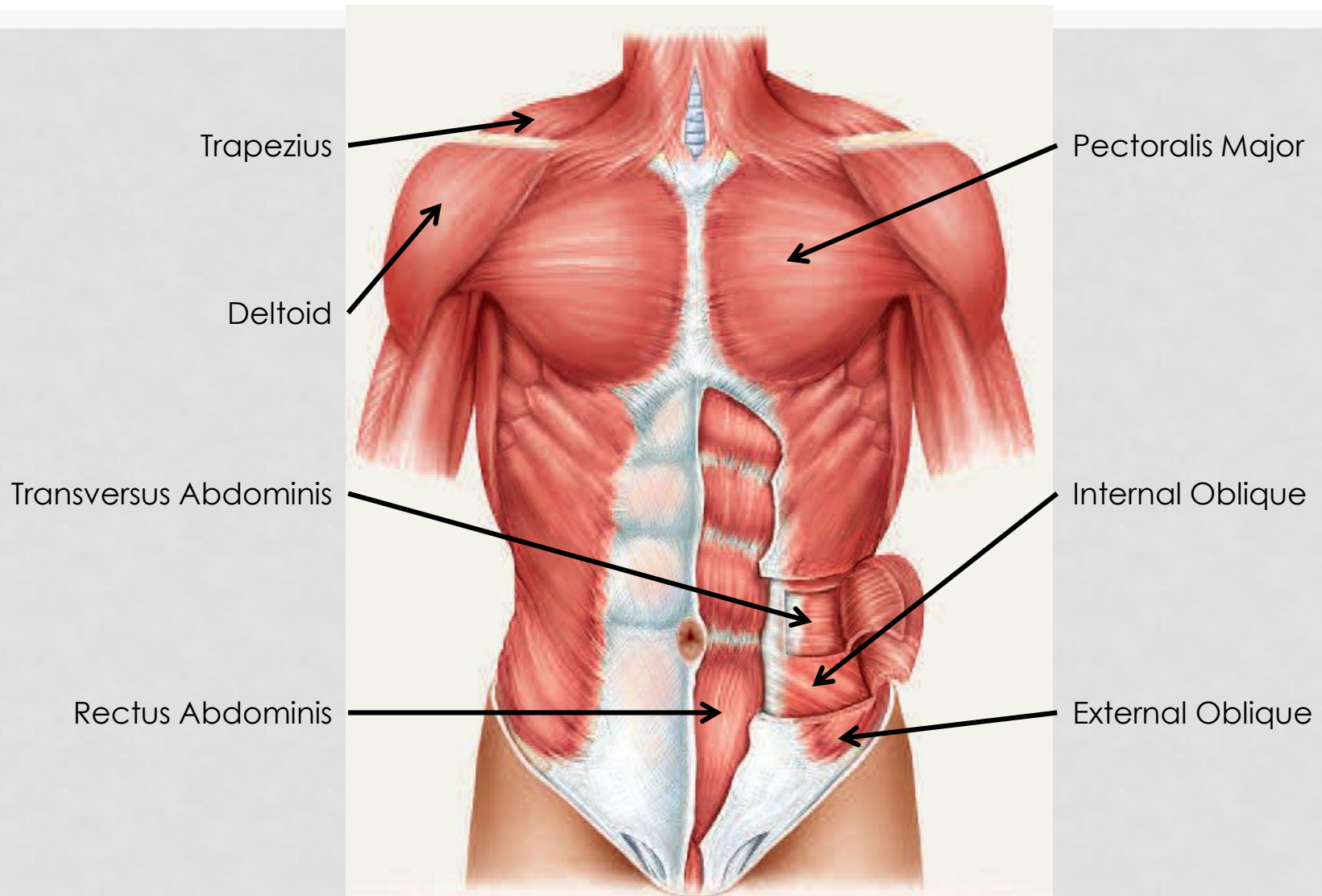
What are synergists?

Muscles that stabilize joints

MUSCLES OF THE HEAD AND NECK

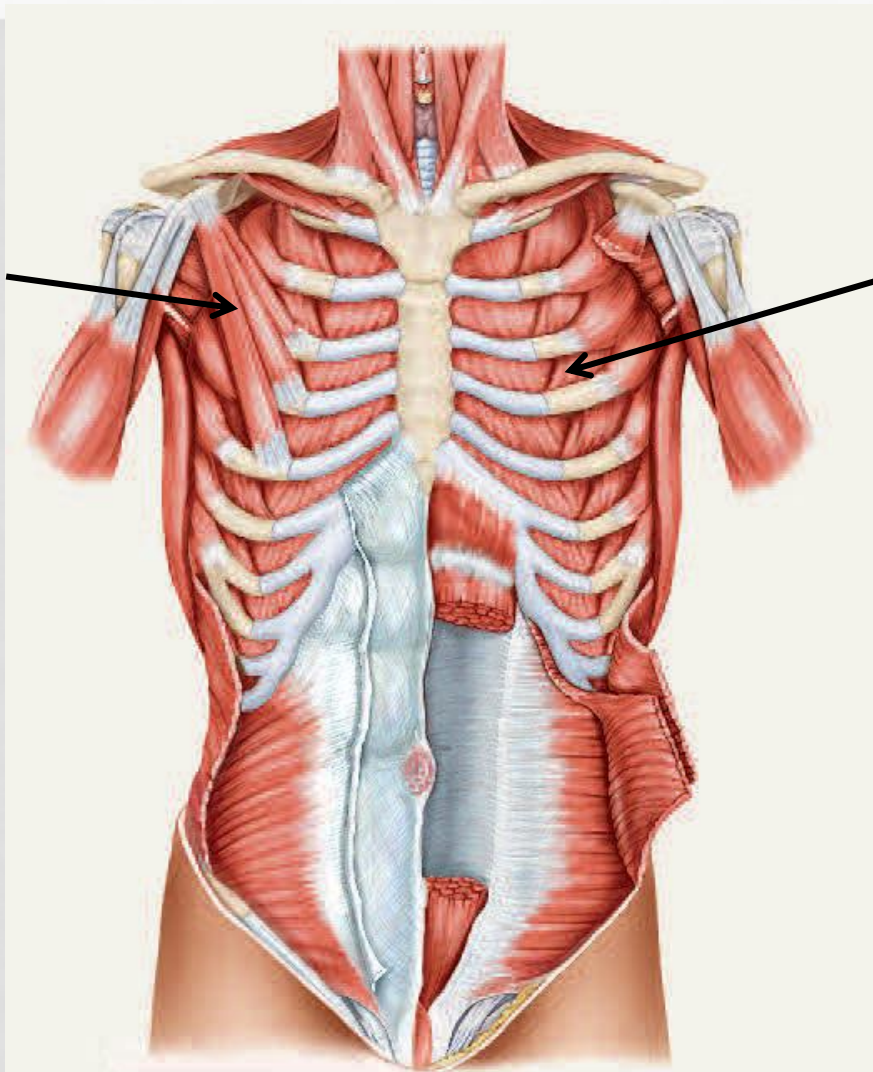


MUSCLES OF THE TRUNK (SUPERFICIAL)



MUSCLES OF THE TRUNK (DEEP)

Pectoralis Minor

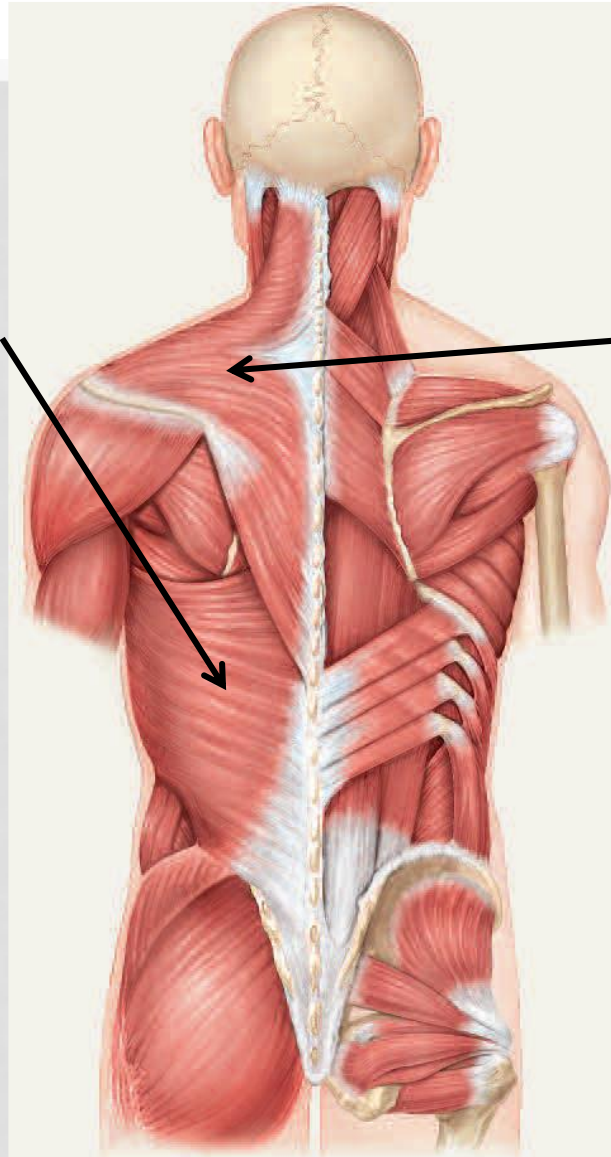


Intercostals

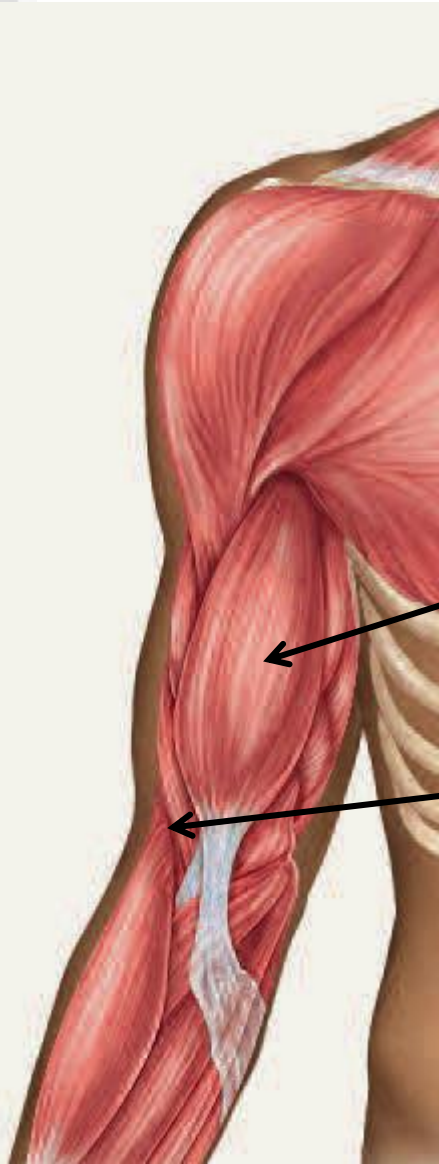
MUSCLES OF THE BACK

Latissimus Dorsi

Trapezius



MUSCLES OF THE ARM



Know Origin
and Insertion
of these

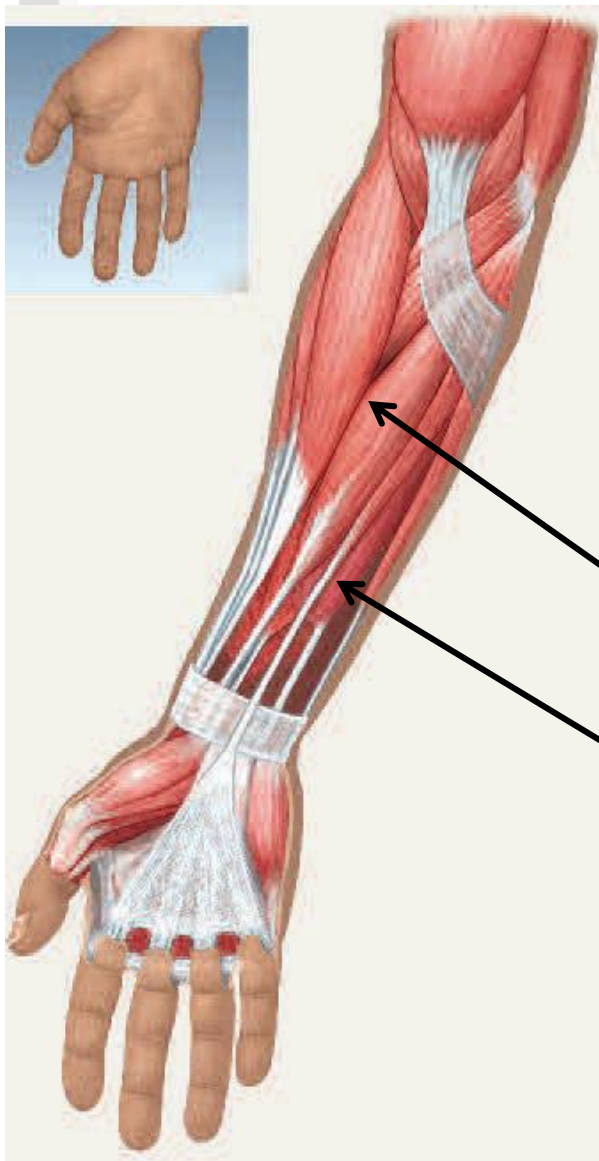
Biceps Brachii

Triceps Brachii

Brachialis



MUSCLES OF THE ARM



Extensor Carpi
Radialis Longus

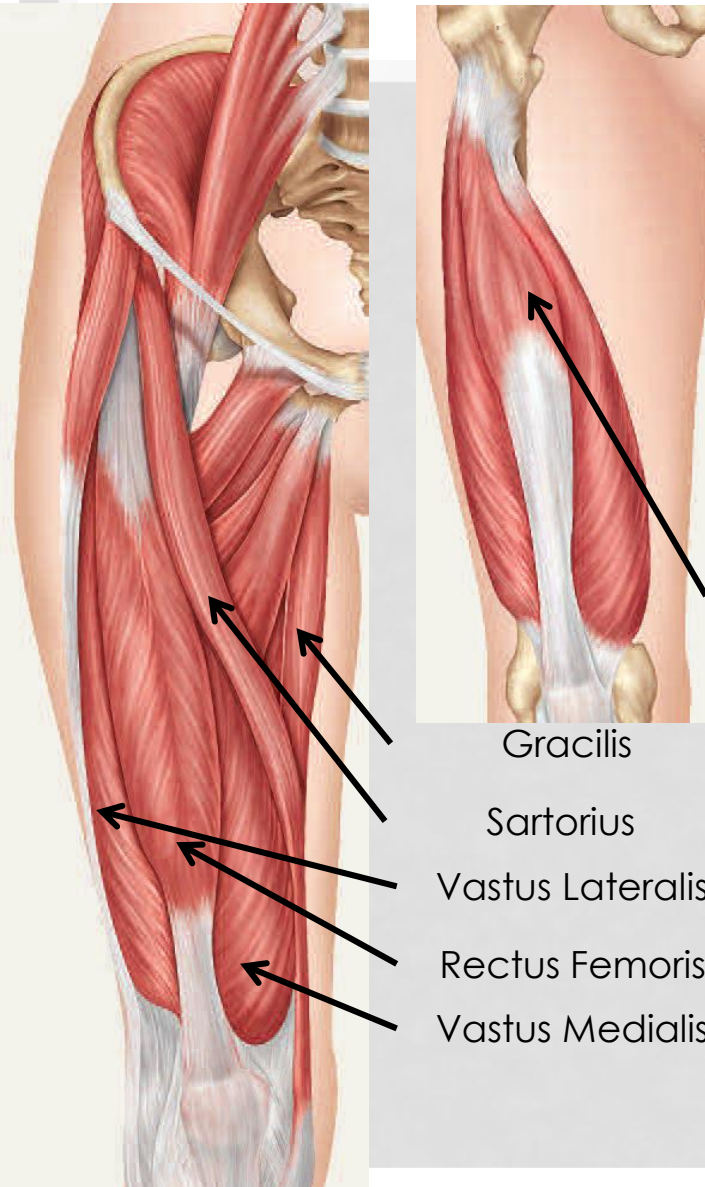
Extensor
Digitorum

Flexor Carpi
Radialis

Flexor Digitorum
Superficialis



MUSCLES OF THE HIP AND THIGH



Gracilis

Sartorius

Vastus Lateralis

Rectus Femoris

Vastus Medialis

Vastus
Intermedius

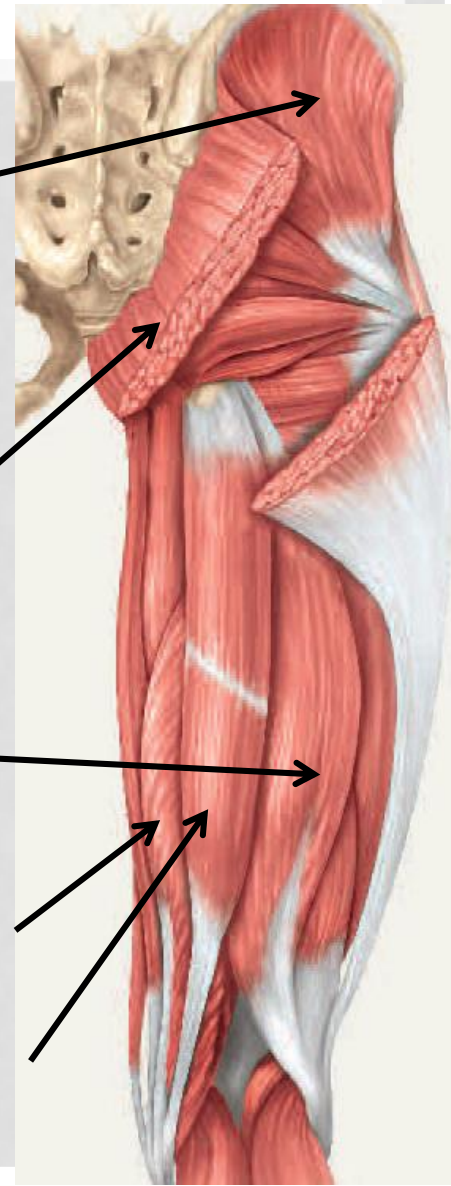
Gluteus Medius

Gluteus Maximus

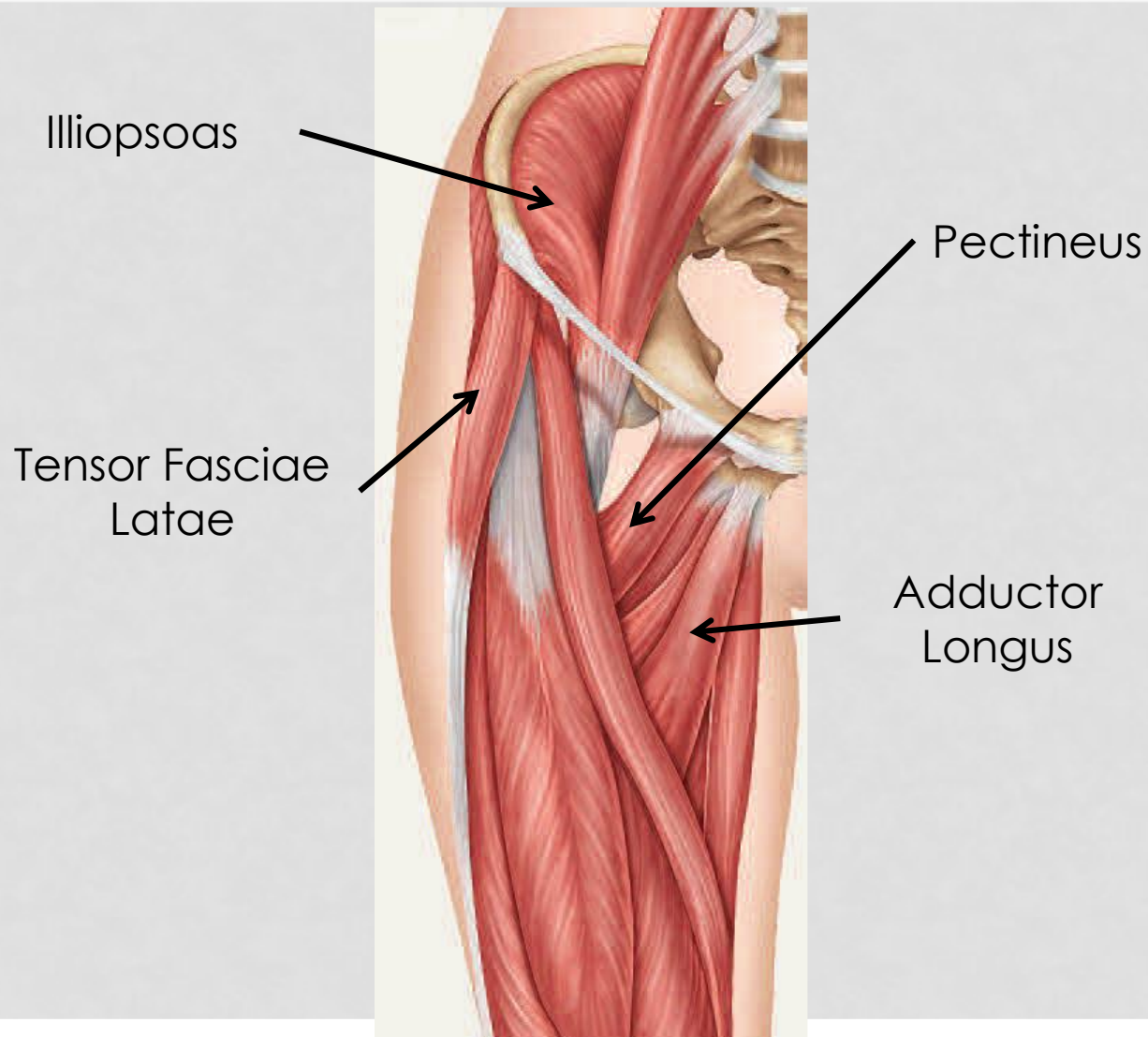
Biceps Femoris

Semimembranosus

Semitendinosus



MUSCLES OF THE HIP AND THIGH




MUSCLES OF THE LOWER LEG

Know Origin
and Insertion
of these



Tibialis Anterior

Extensor
Digitorum Longus



Gastrocnemius

Flexor Digitorum
Longus

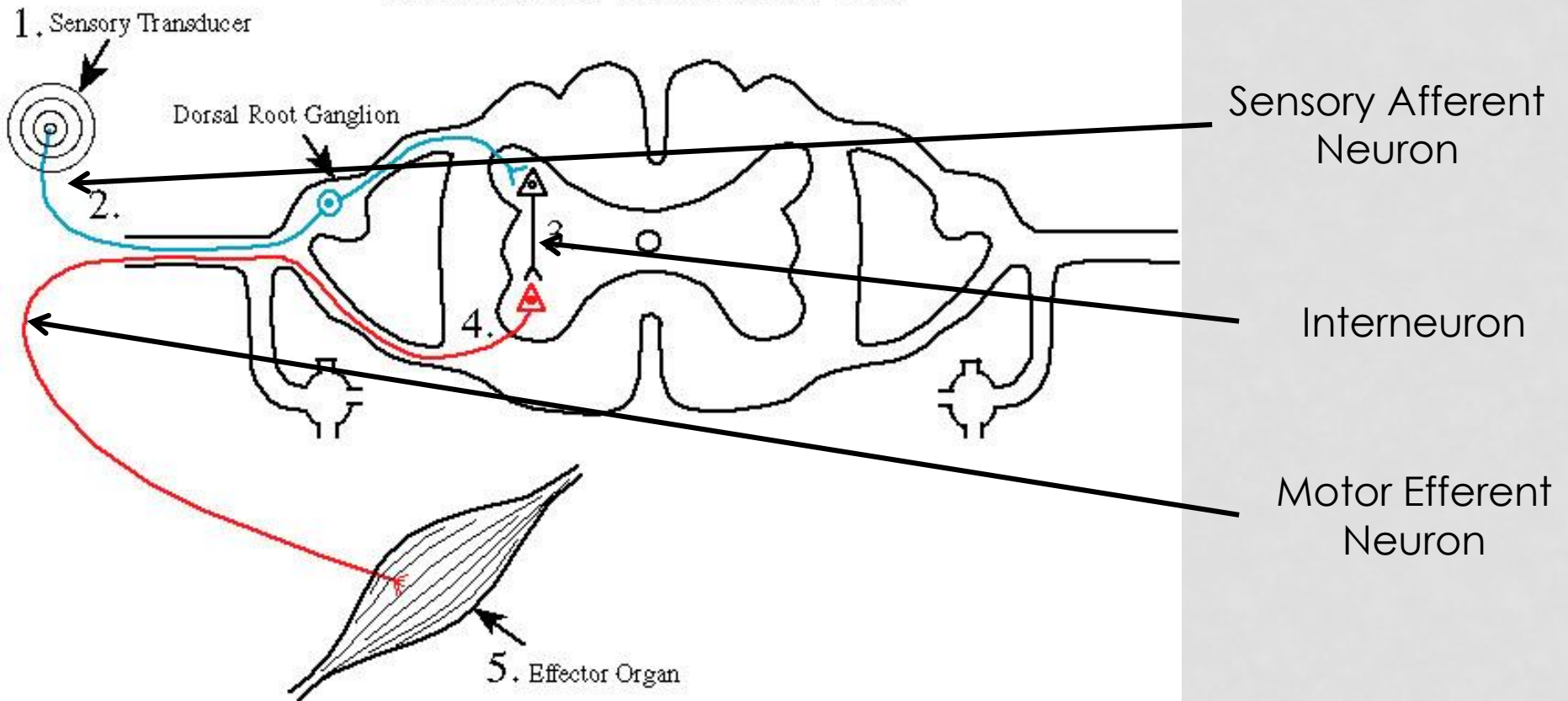
Achilles Tendon

MUSCLE PHYSIOLOGY TERMS

- Motor Unit
 - A Nerve, the muscle cells it innervates, and the synapse between them
- Threshold Stimulus
 - The amount of a stimulus required to force a muscle cell to contract
- Muscle Twitch
 - A single, short-lived contraction of a skeletal muscle cell
- Temporal or Wave Summation
 - An increase in stimulation frequency which leads to an increase in overall contraction force
- Tetanus
 - Extreme level of stimulation in which the muscle cell has no time to relax
- Spatial Summation
 - Multiple muscle cells are stimulated at once, causing more contractile force to be exerted

REFLEX ARC

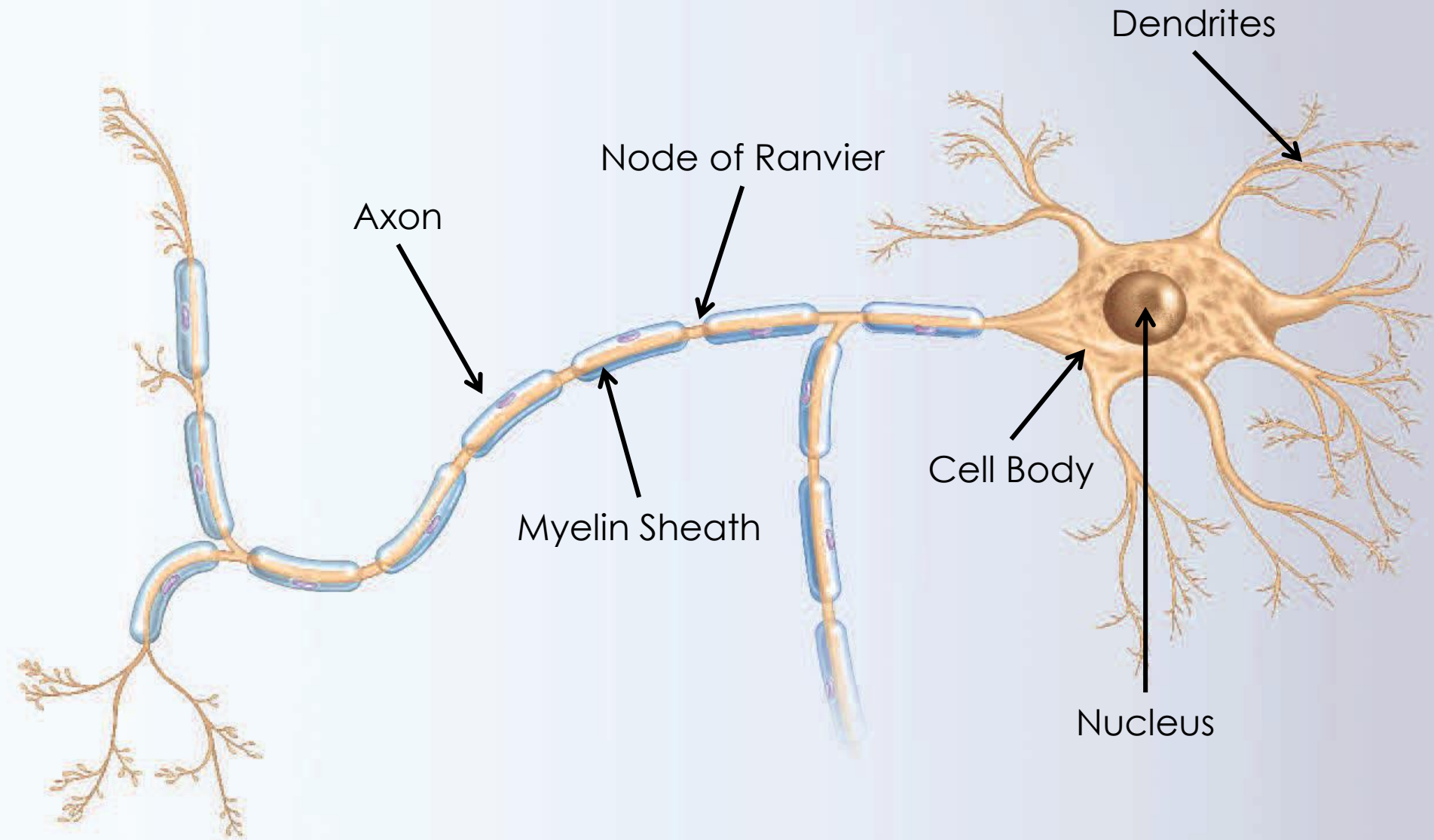
Somatic Reflex Arc



NEURON ANATOMY TERMS

- Unipolar Neuron
 - A neuron with only one projection, usually sensory afferent
- Bipolar Neuron
 - A neuron with two projections, a dendrite and an axon, usually found in special sense organs
- Multipolar Neuron
 - A neuron with several projections, multiple dendrites and one axon, most neurons in CNS and PNS
- Sensory Afferent
 - Carries information from the PNS to the CNS
- Interneuron
 - Only in the CNS, connection between two neurons, i.e. sensory afferent and motor efferent are connected by an interneuron
- Motor Efferent
 - Connects CNS to PNS
- Nucleus
 - A group of cell bodies in the CNS
- Ganglion
 - A group of cell bodies in the PNS
- Tract
 - A bundle of axons in the CNS
- Nerve
 - A bundle of axons in the PNS

NEURON ANATOMY



NEUROMUSCULAR JUNCTIONS



What is a motor unit?

A nerve and all the muscle cells it innervates.

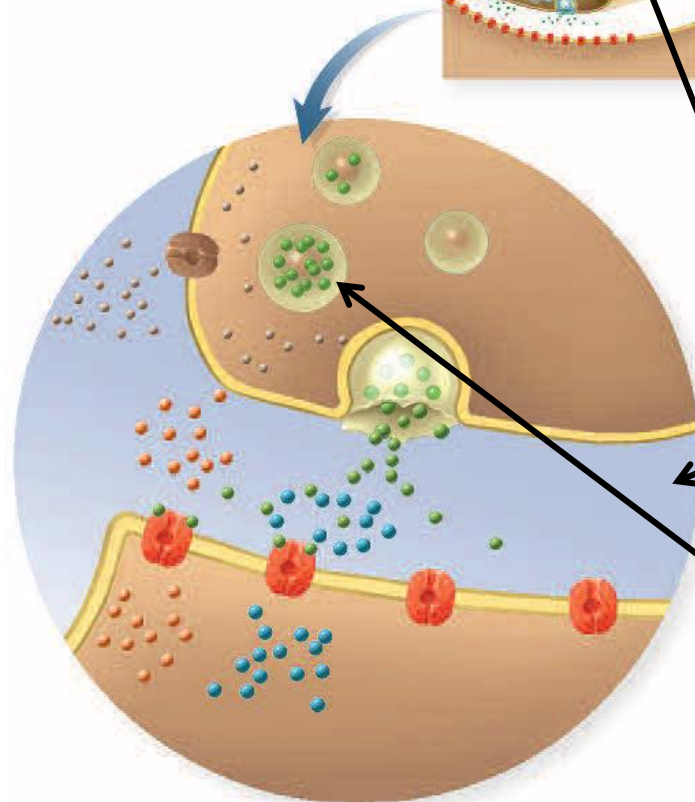
What are the three layers of a nerve from outermost to innermost?

Epineurium
Perineurium
Endoneurium

Axon Terminal

Synaptic Cleft

Synaptic Vesicles



SPINAL CORD ANATOMY



What are the three meninges from superficial to deep?

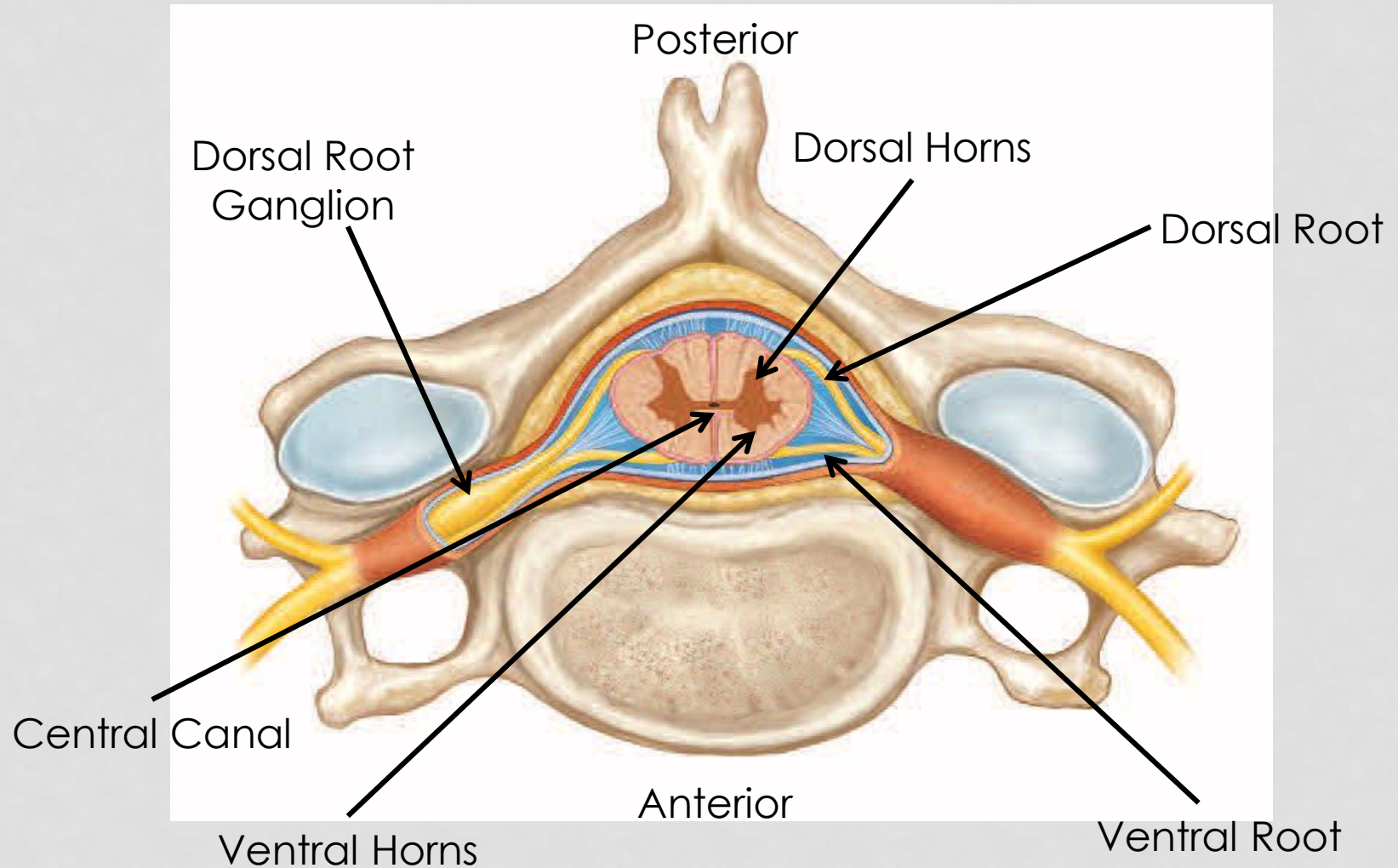
Dura Mater, Arachnoid Mater, Pia Mater

Conus
Medullaris

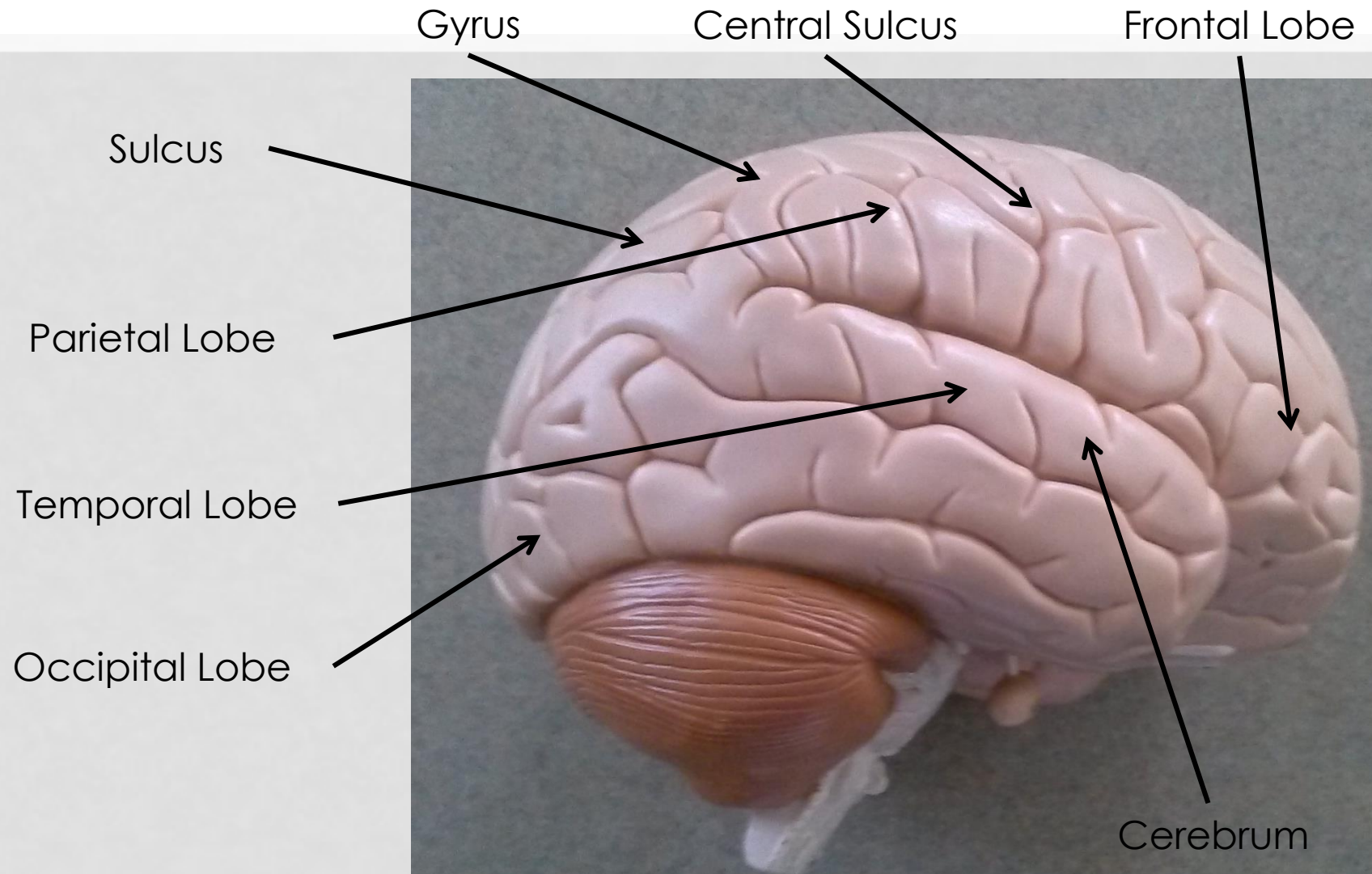
Cauda Equina

Filum Terminale

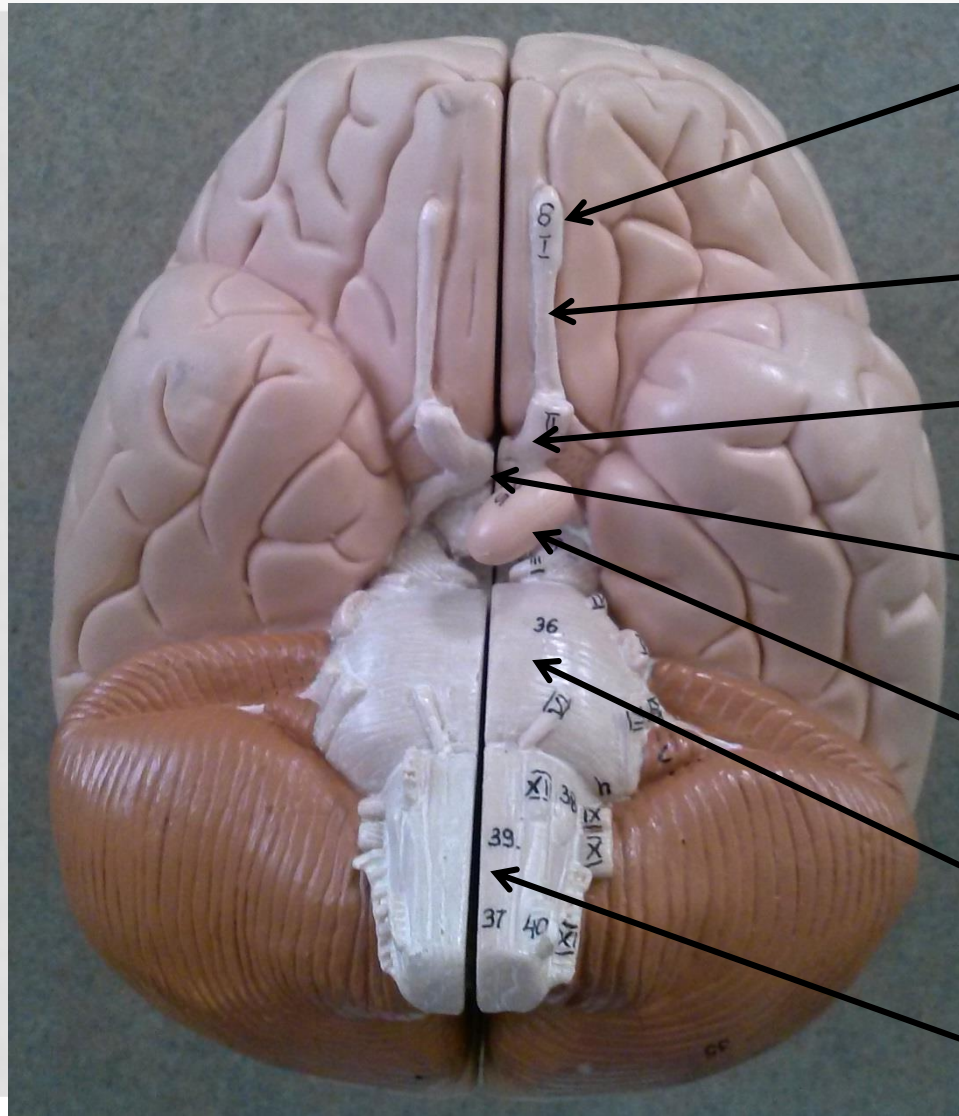
SPINAL CORD ANATOMY



THE BRAIN



THE BRAIN



Olfactory Bulbs

Olfactory Tracts

Optic Nerve

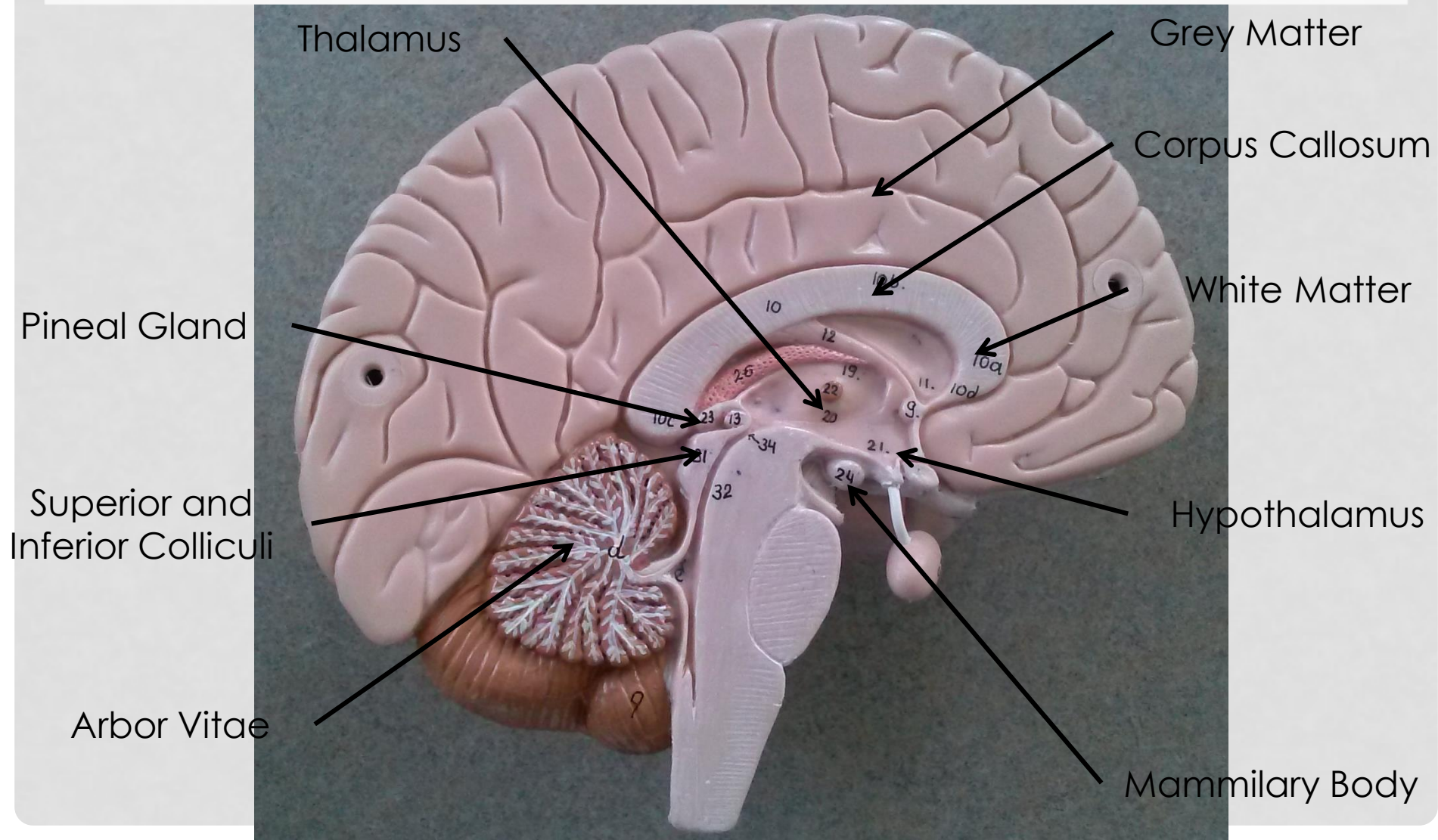
Optic Chiasm

Pituitary Gland

Pons

Medulla

THE BRAIN



CRANIAL NERVES

— sensory fibres
— motor fibres

Olfactory (I)
sensory: nose

Intermediate
motor:
submaxillary and
sublingual gland

sensory:
anterior part of tongue
and soft palate

Glossopharyngeal (IX)
motor:
pharyngeal
musculature
sensory:
posterior part
of tongue,
tonsil, pharynx

Optic (II)
sensory: eye

Vestibulocochlear (VIII)
sensory:
inner ear

Trochlear (IV)
motor: superior
oblique muscle

Abducent (VI)
motor: external
rectus muscle

Oculomotor (III)
motor: all eye
muscles except
those supplied by
IV and VI

Vagus (X)
motor:
heart, lungs,
bronchi,
gastrointestinal
tract

sensory:
heart, lungs,
bronchi, trachea,
larynx, pharynx,
gastrointestinal
tract, external ear

Trigeminal (V)
sensory: face,
sinuses, teeth, etc.

motor: muscles
of mastication

Facial (VII)
motor:
muscles
of the
face

Hypoglossal (XII)
motor: muscles
of the tongue

Accessory (XI)
motor: sterno-
cleidomastoid and
trapezius muscles

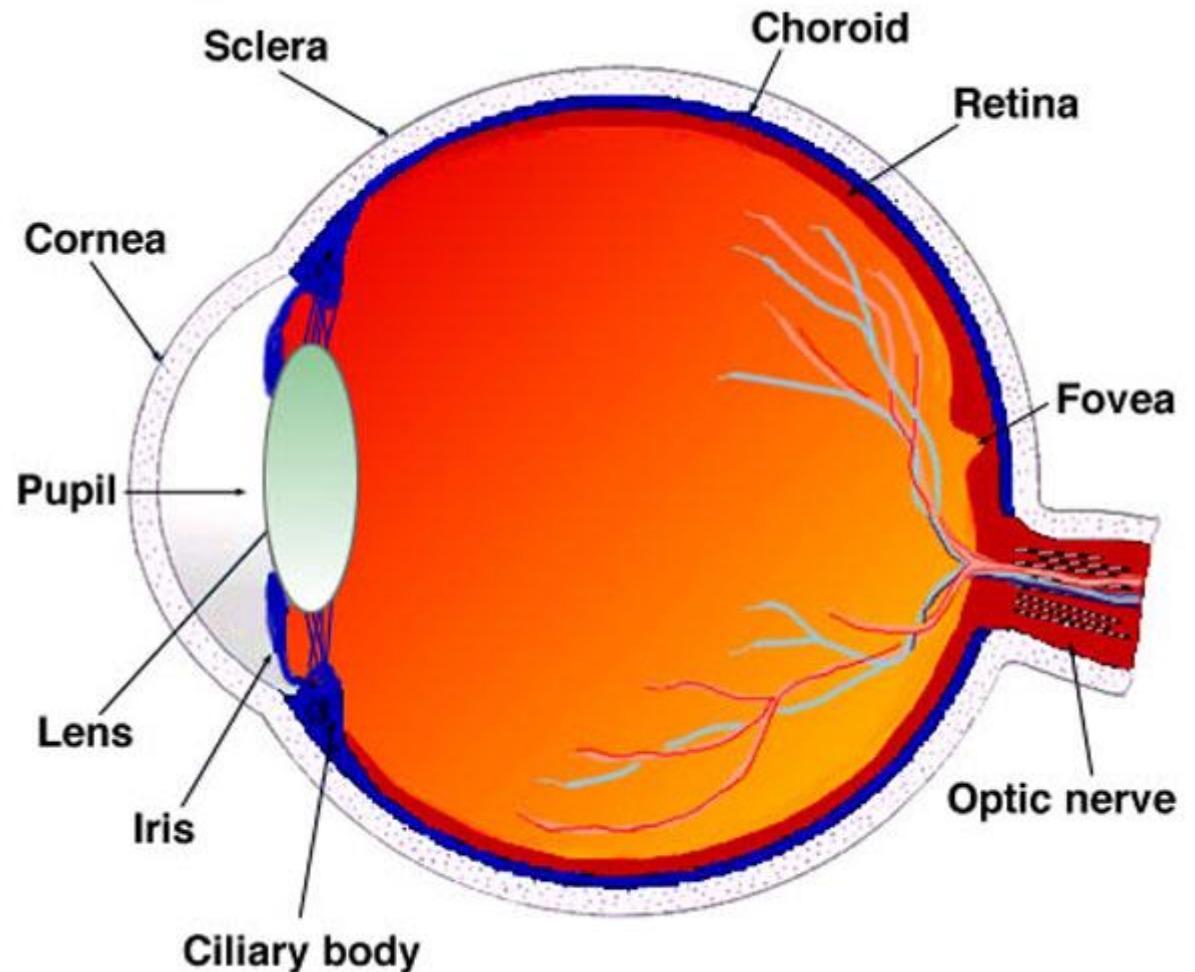
THE EYE

What is the blind spot?

Where the optic nerve meets the eye

What are the aqueous and vitreous humors?

Aqueous Humor:
Fluid between the cornea and lens
Vitreous Humor: fluid
behind the lens



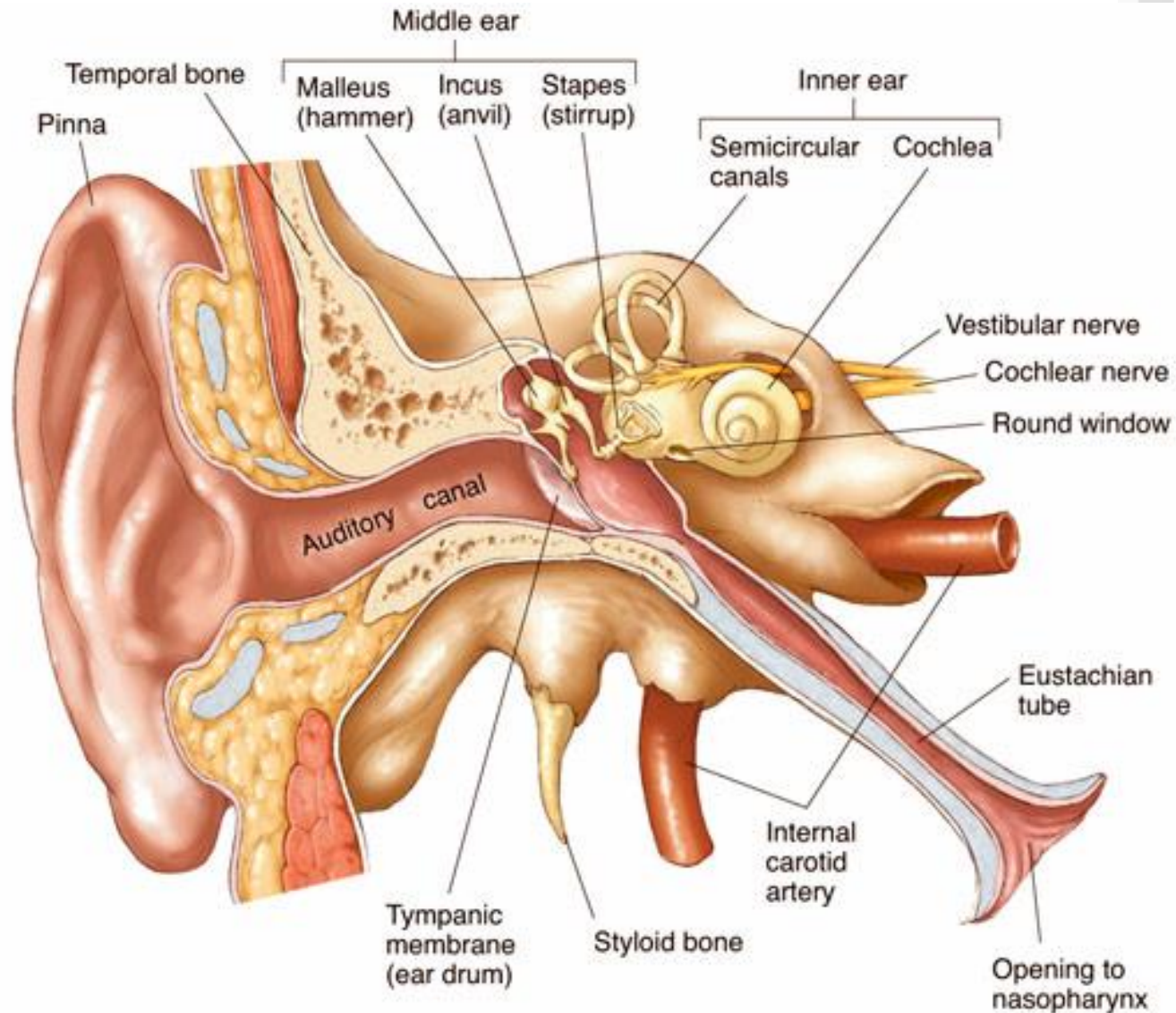
THE EAR

What bone is attached to the oval window?

Stapes

The semicircular canals are part of what?

Vestibule





DAYTONA STATE COLLEGE

Questions



Prepared by

K. Martin (Peer Tutor) & D. Leonard (Learning Specialist)

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