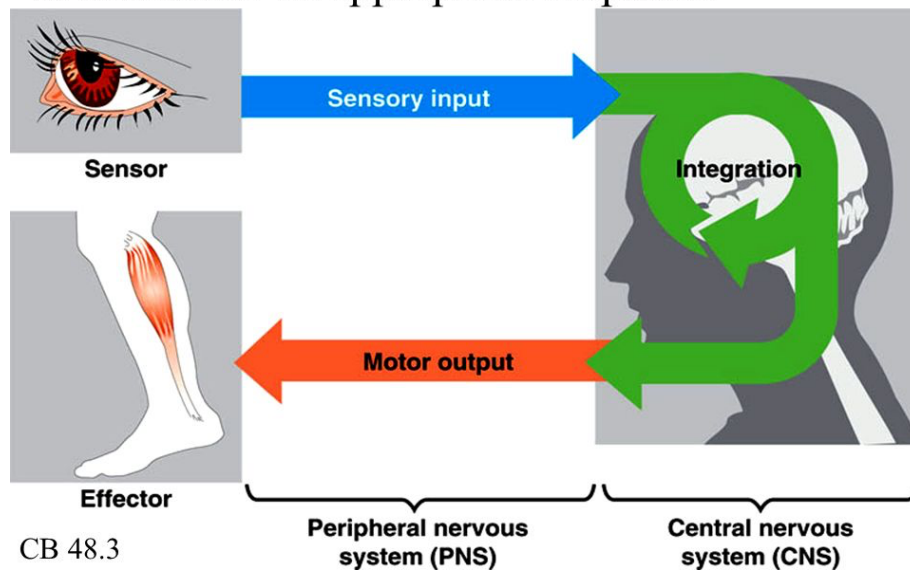


Anatomy Unit 3 Notes: Nervous and Endocrine

Chapter 11 Notes

Nerves allow us to perceive the environment while the brain integrates the incoming signals to determine an appropriate response.



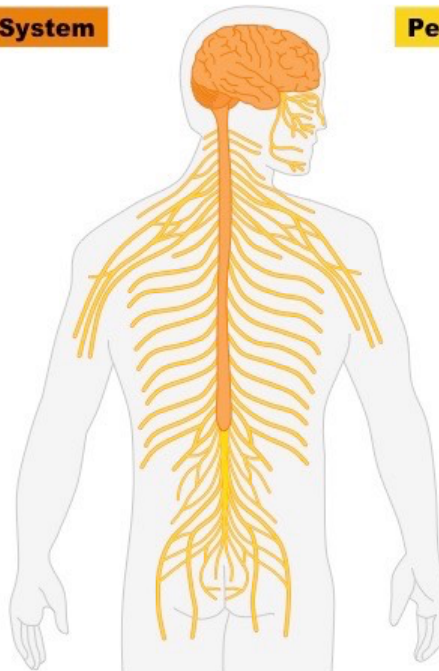
Central Nervous System

Composed of:

- Brain
- Spinal cord

Contains:

- Relay neurons (interneurons)



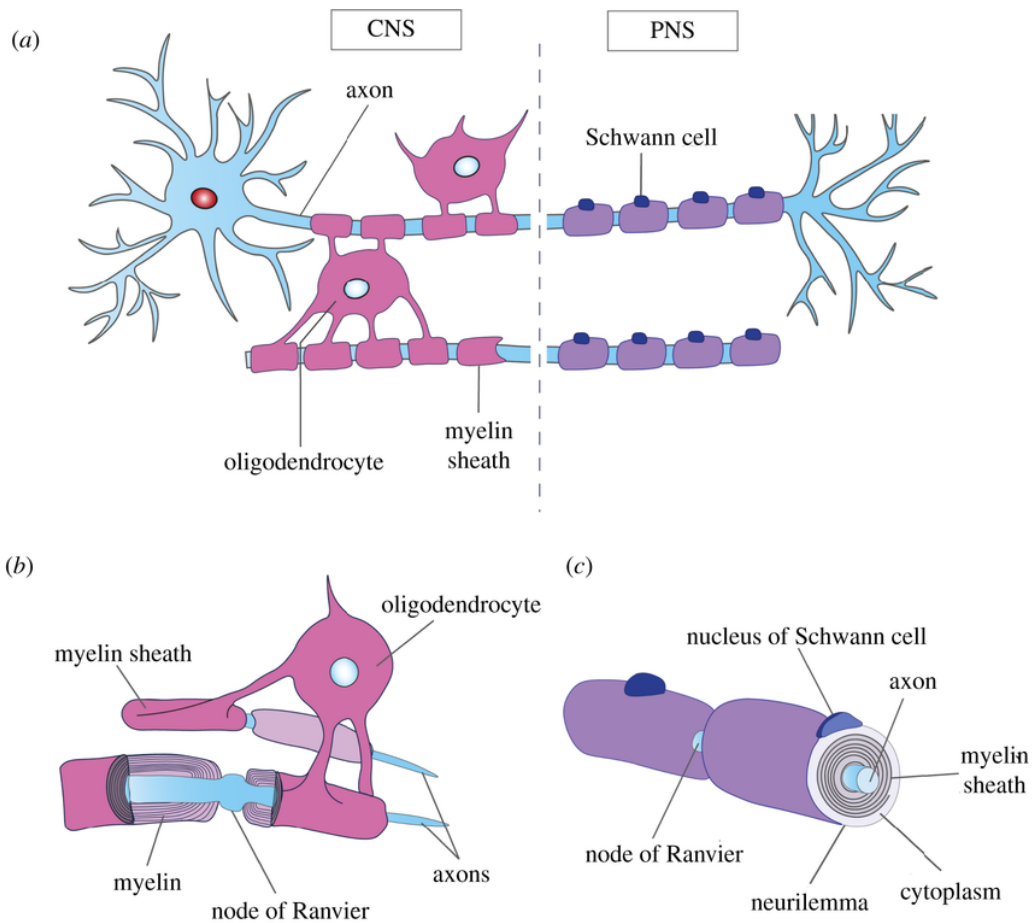
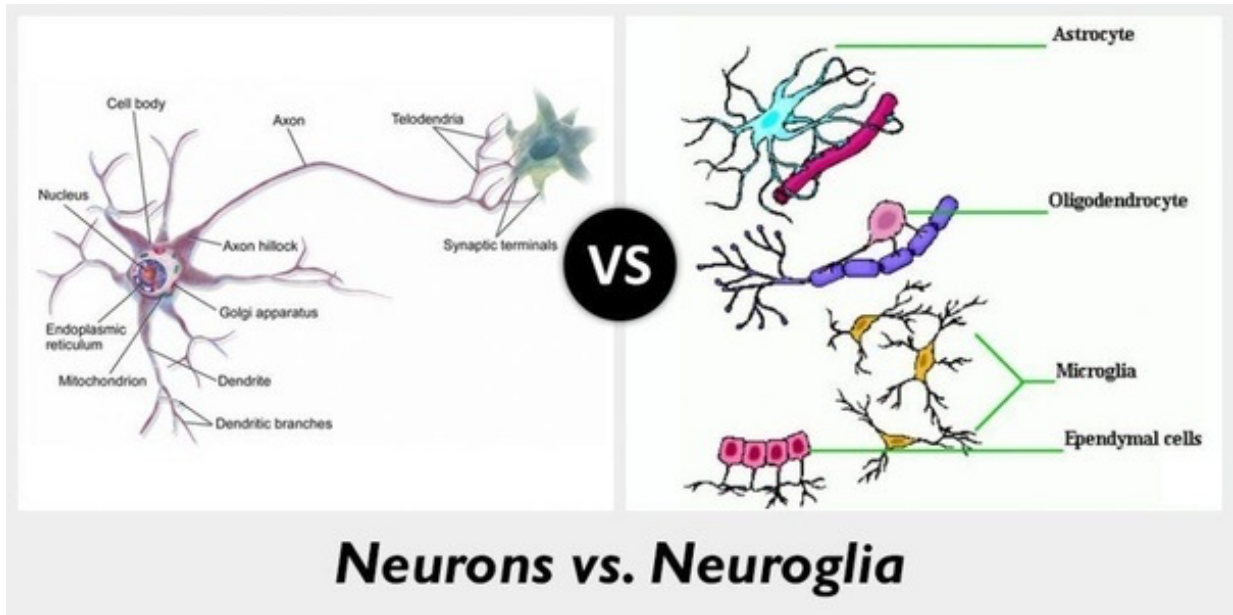
Peripheral Nervous System

Composed of:

- Cranial nerves
- Spinal nerves
- Peripheral nerves

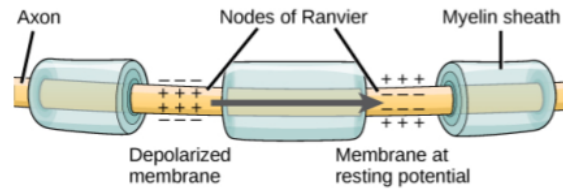
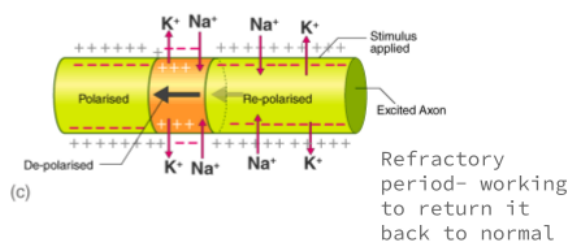
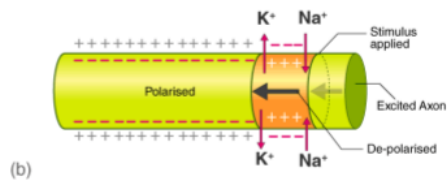
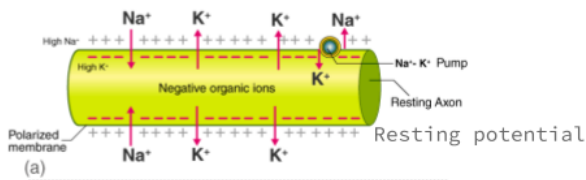
Contains:

- Sensory neurons
- Motor neurons

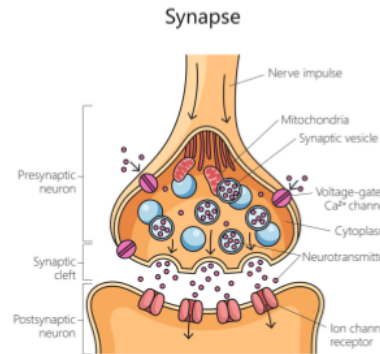


CONDUCTION OF NERVE IMPULSE

BYJU'S
The Learning App



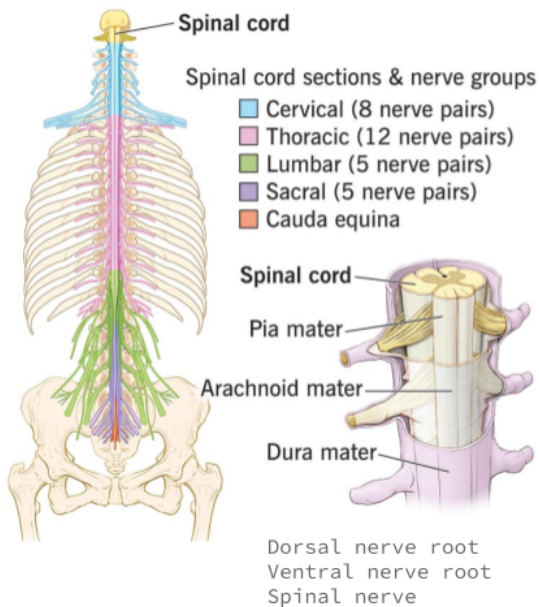
Saltatory conduction



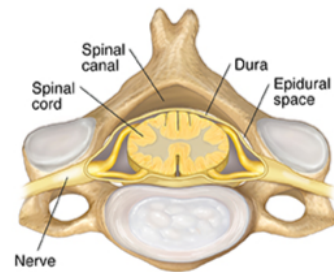
#6

Spinal cord

#7 & 9



Top view



Vertebral body

Central canal

Gray matter

White matter

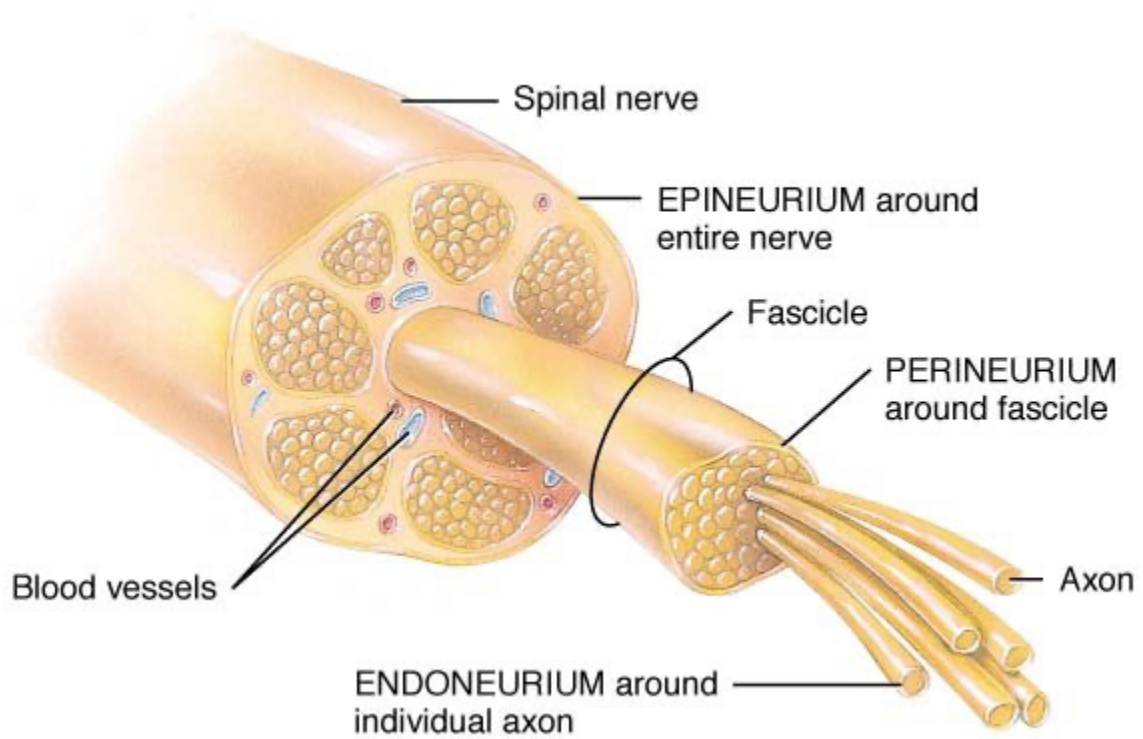
Posterior horn

Anterior horn

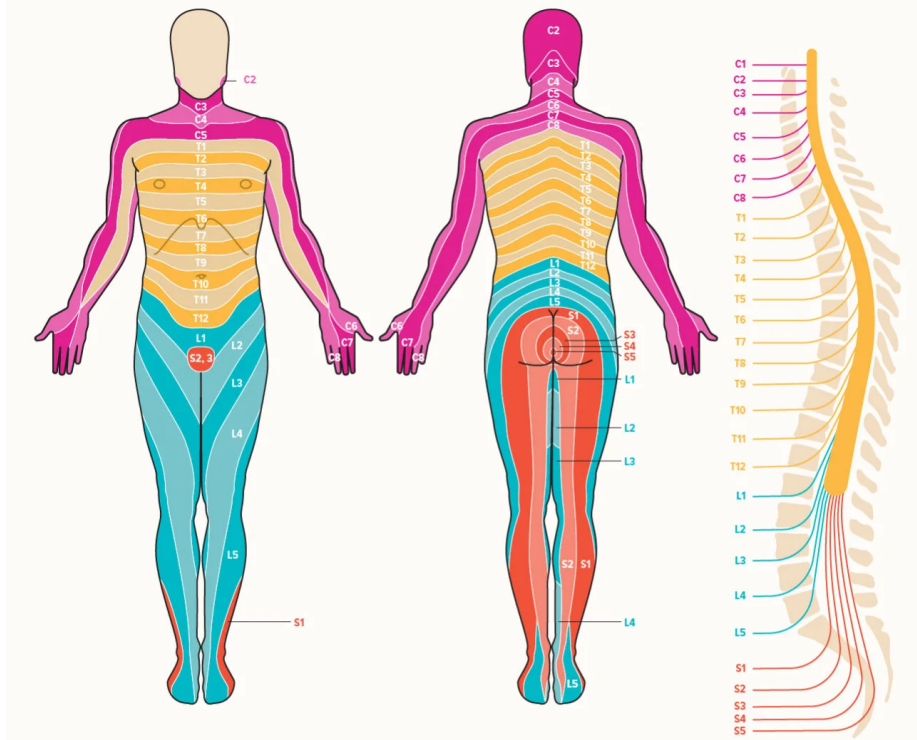


Blue- ascending
tracts- sensory
signals to brain

Red- descending
tracts- motor
impulses to skeletal
muscles



Dermatomes



PERIPHERAL NERVOUS SYSTEM

SOMATIC NERVOUS SYSTEM

- * SOMATIC SENSORY FIBERS
- * SOMATIC MOTOR FIBERS
- * VOLUNTARY ACTIONS

AUTONOMIC NERVOUS SYSTEM

- * INVOLUNTARY FUNCTIONS
- * VISCERAL MOTOR
- * VISCERAL SENSORY

SYMPATHETIC DIVISION "FIGHT or FLIGHT"

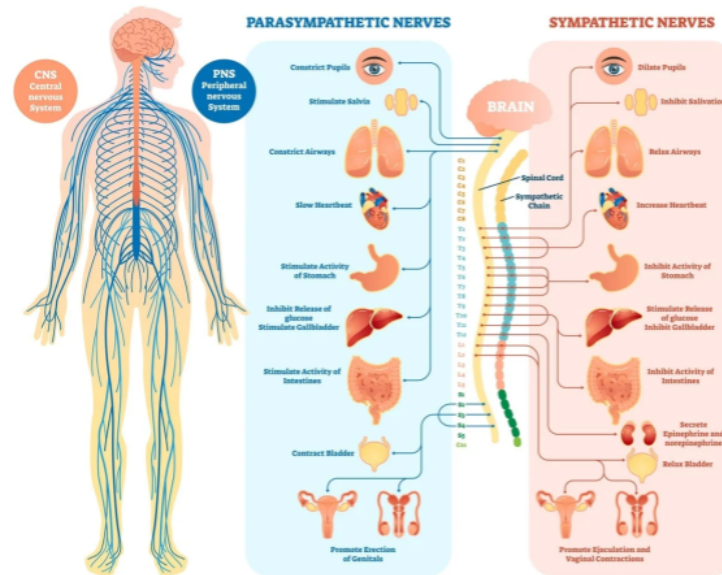
PARASYMPATHETIC DIVISION "REST & DIGEST"



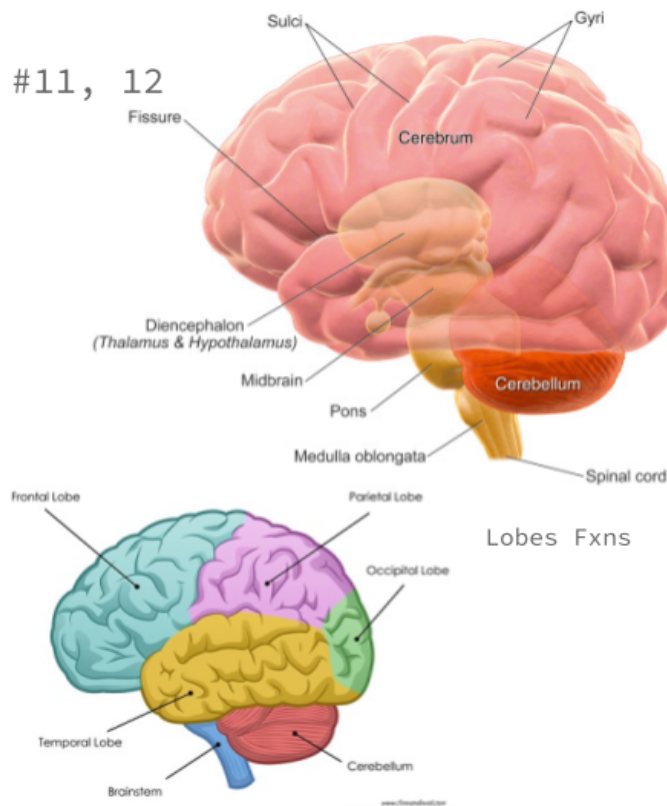
#20

HUMAN NERVOUS SYSTEM

Norepinephrine
Acetylcholine
A note about
receptors...



#11, 12



Gyri- ridges
Sulci- grooves

Cerebrum- think, remember, feel, judge, move

Cerebellum- more neurons than rest of brain, receives and processes, monitors movement, evaluates touch, spatial perception, and sound

Diencephalon-

Thalamus-processes impulses, memory, emotion

Hypothalamus- autonomic nervous system, hunger, thirst, temp regulation, pituitary gland control, emotions

Brainstem-

Midbrain- relay sensory and motor impulses, auditory, visual, muscle control

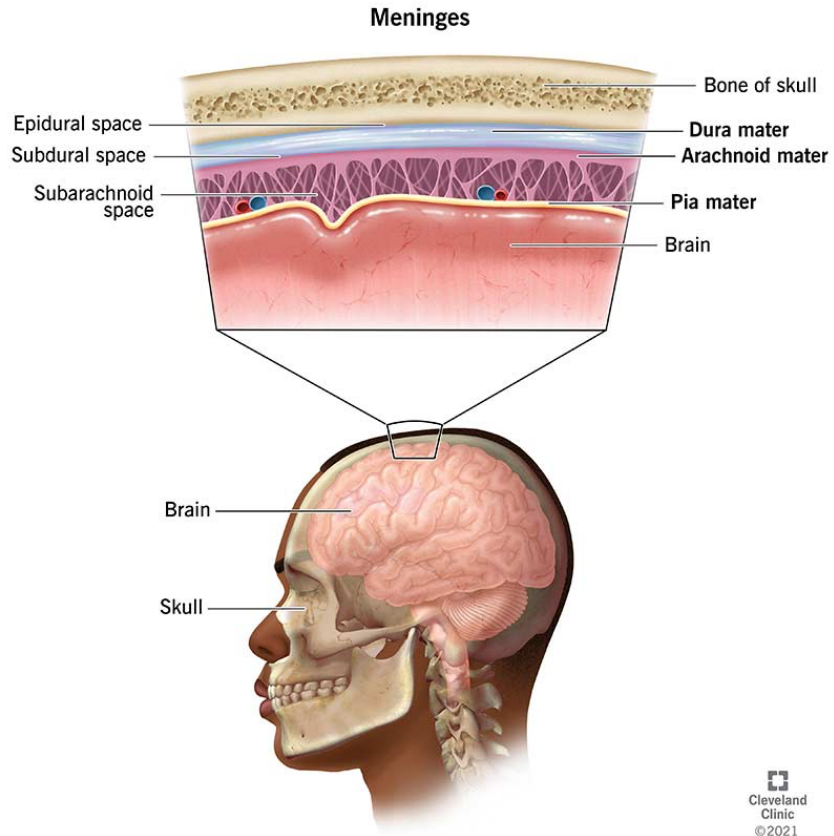
Pons- tracts to and from other brain parts

medulla oblongata- attaches brain to spinal cord, regulates heart rate, blood pressure, and breathing, certain reflexes

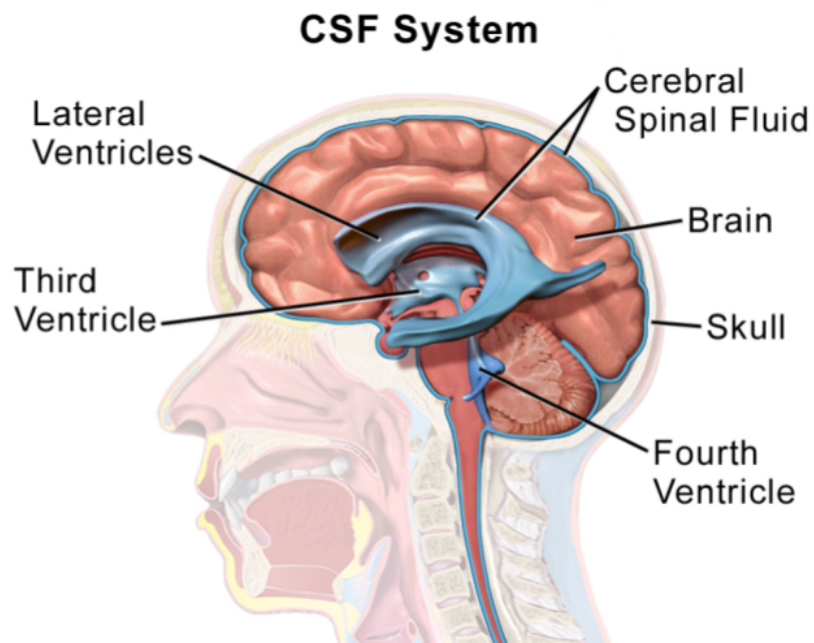
Longitudinal fissure

Gray matter- covers as cortex

White matter- underneath cortex

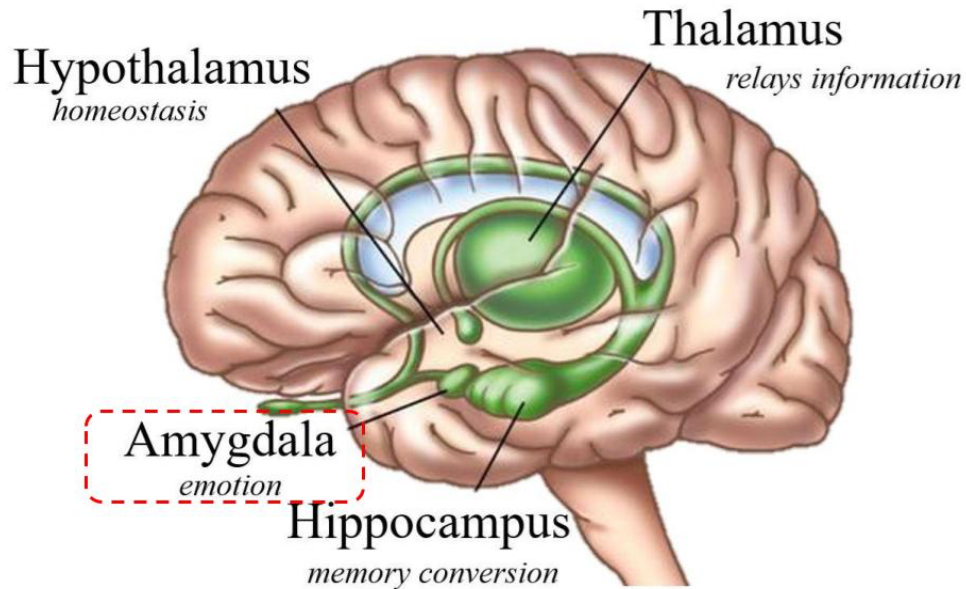


#14

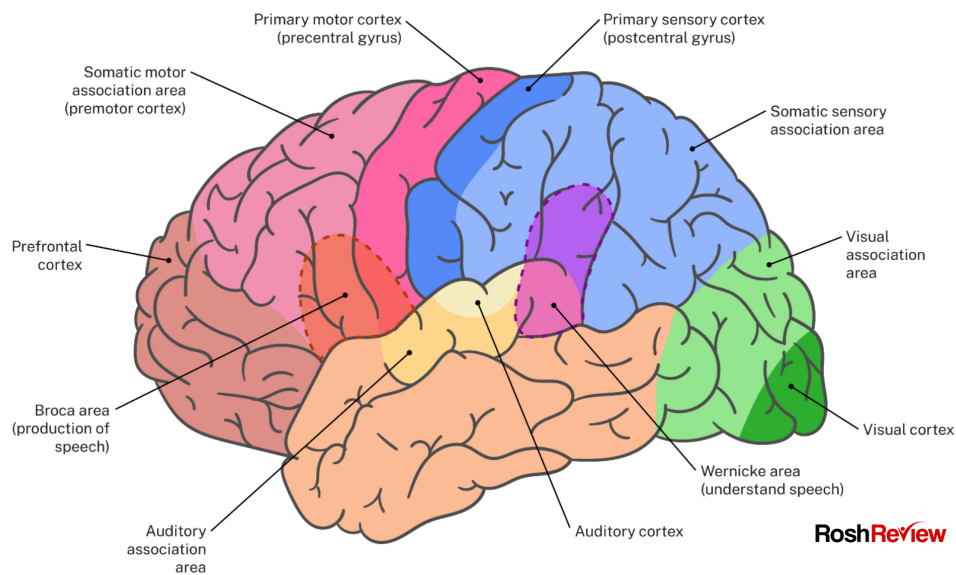


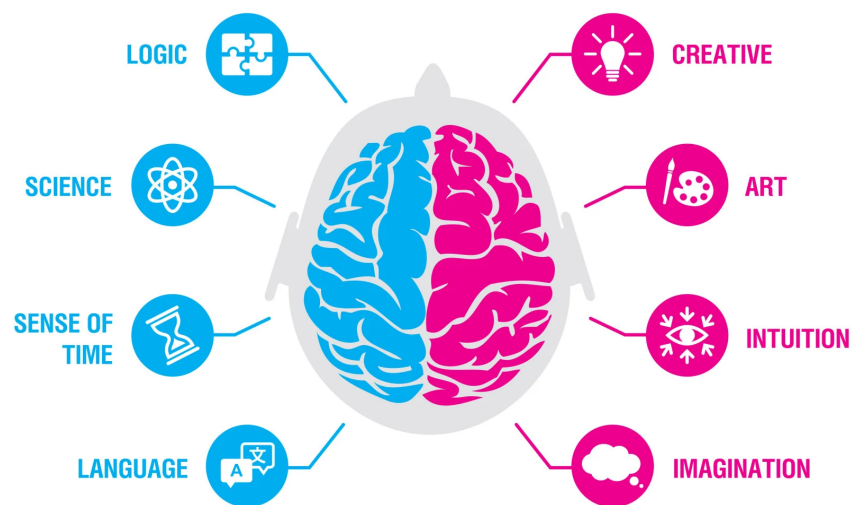
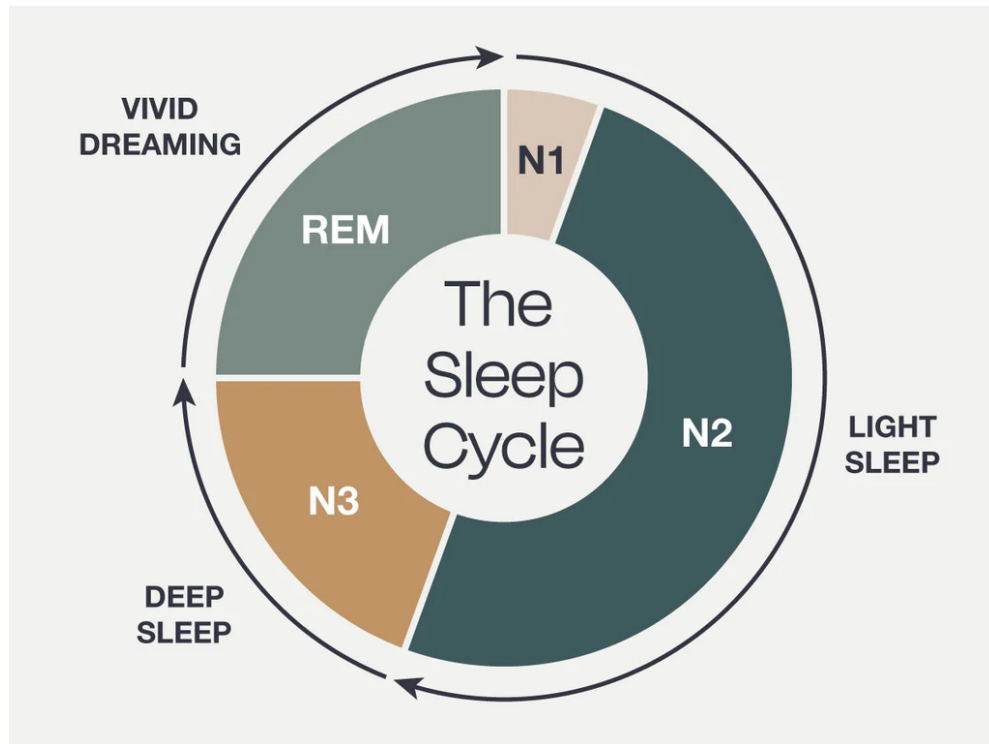
Blood
Brain
Barrier:

The Limbic System



Motor and Sensory Regions of the Cerebral Cortex





Chapter 12

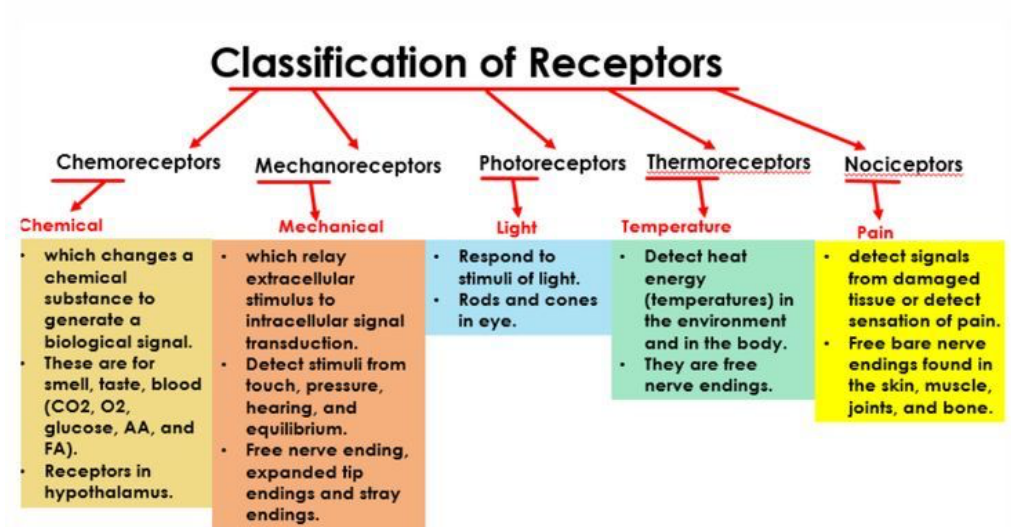
SENSORY PROJECTION AND INTENSITY

When a particular neuron carries a stimulus to the brain, the brain knows where it originated- this is sensory projection. Sensitive areas have more receptors and the brain can identify with more accuracy.

Intensity- the stronger a stimulus, the more nerve fibers fire

#2: type, location, and intensity

CLASSIFICATION OF RECEPTORS

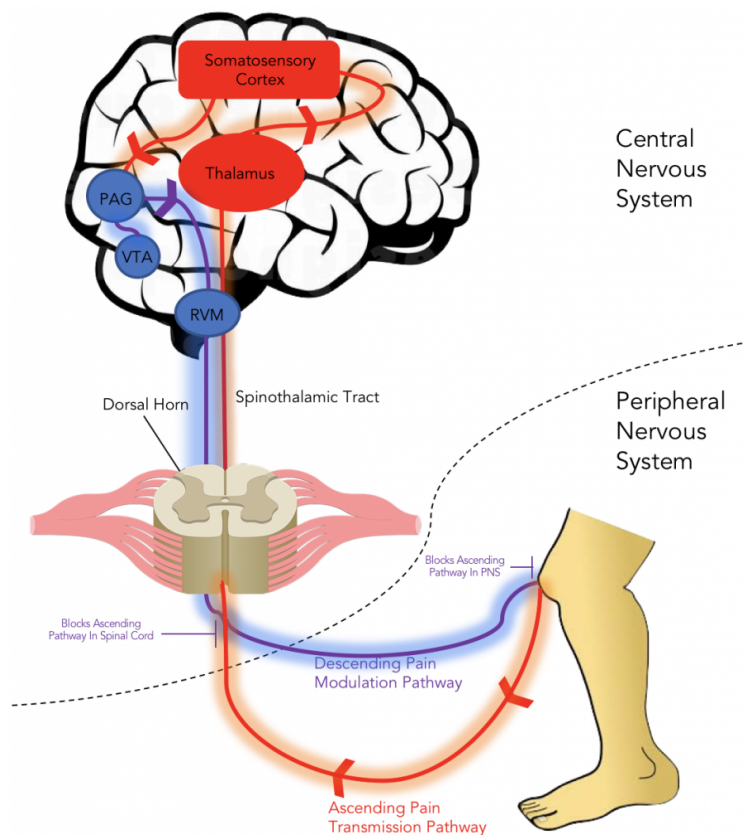


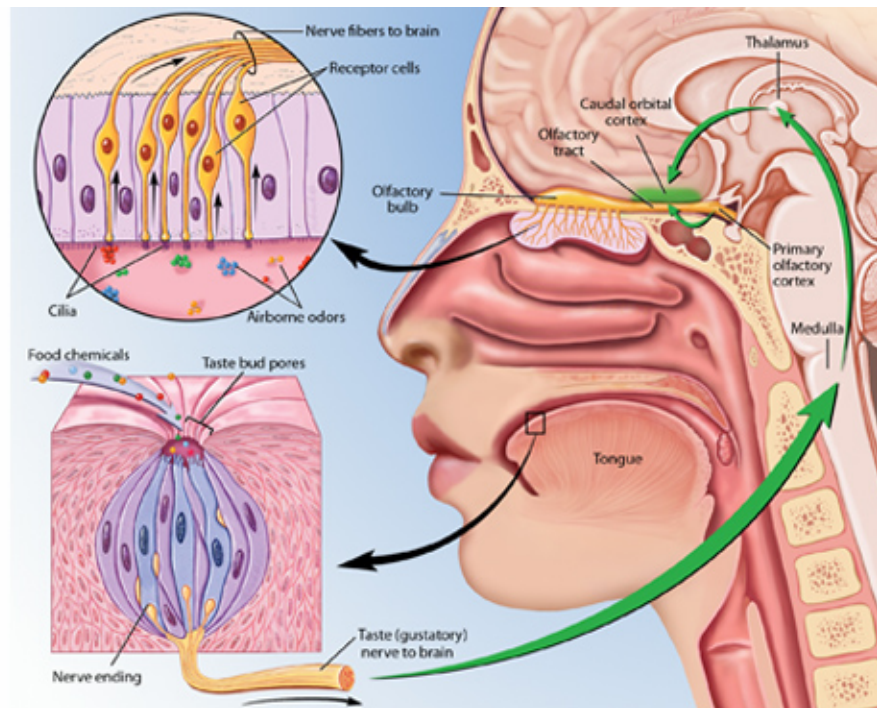
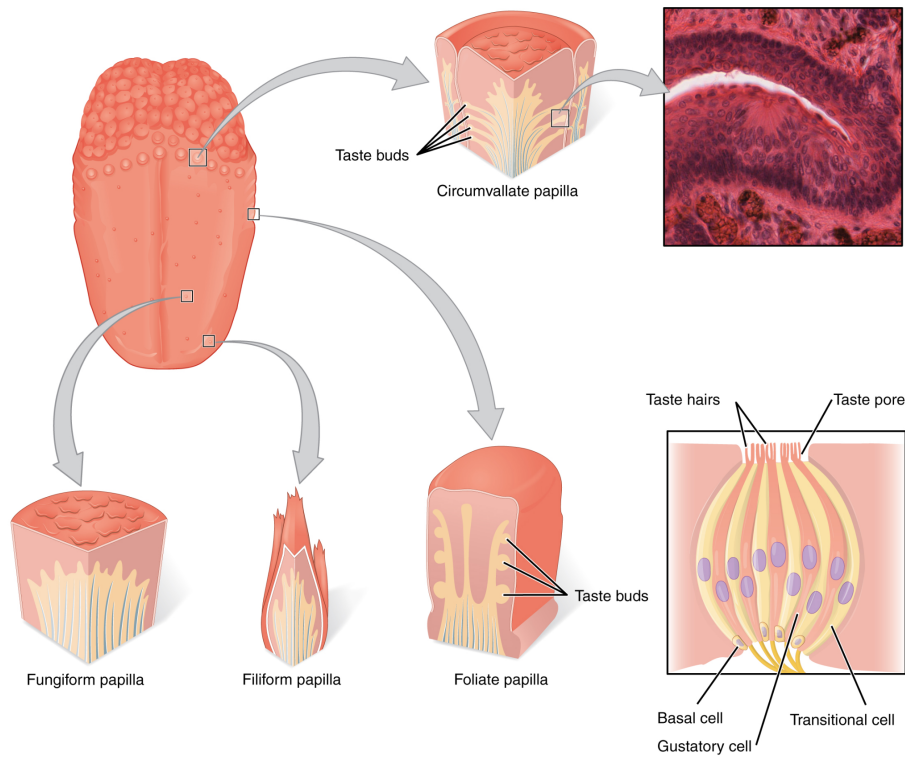
• FAST PAIN

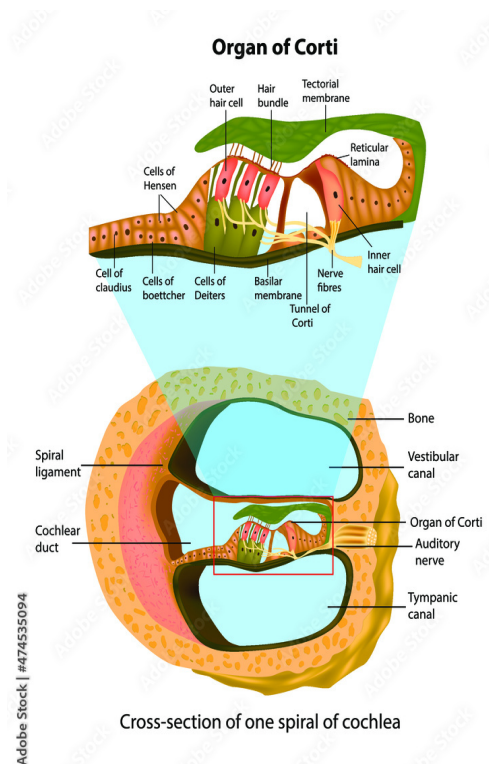
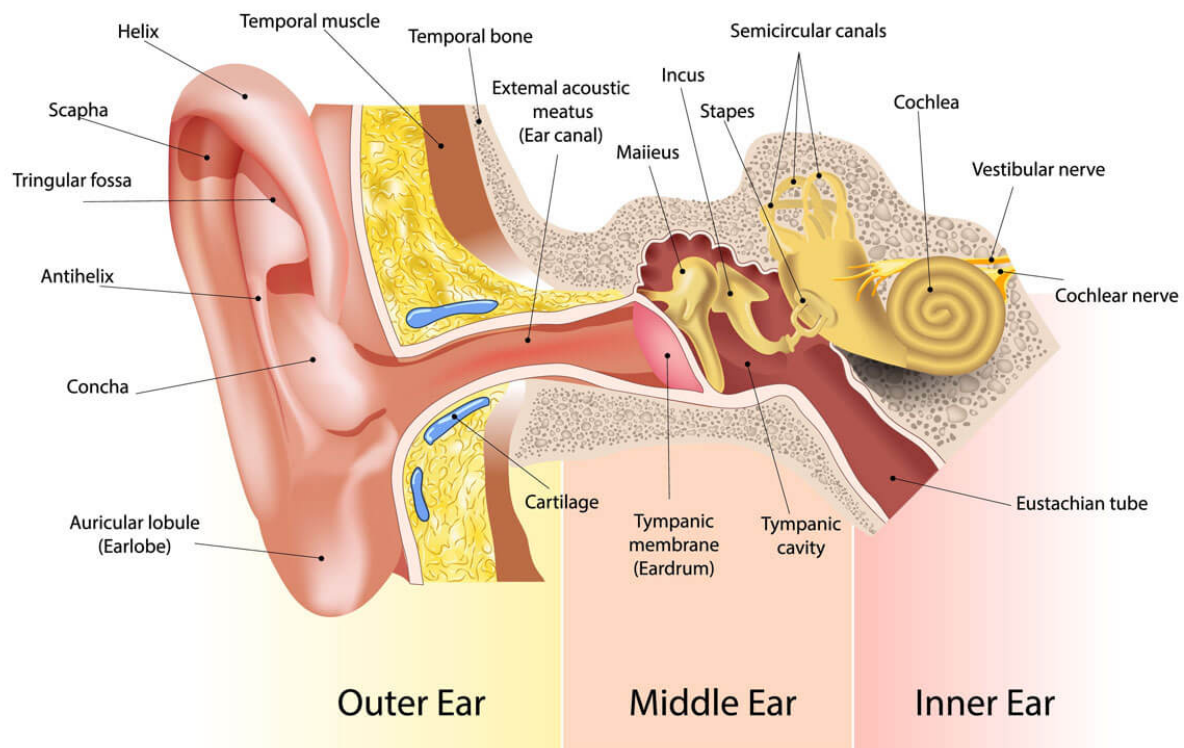
- Felt about 0.1 sec after a pain stimulus is applied.
- It is described as sharp pain, pricking pain, acute & electric pain.
- Fast sharp pain is not felt in most deeper tissues of the body.

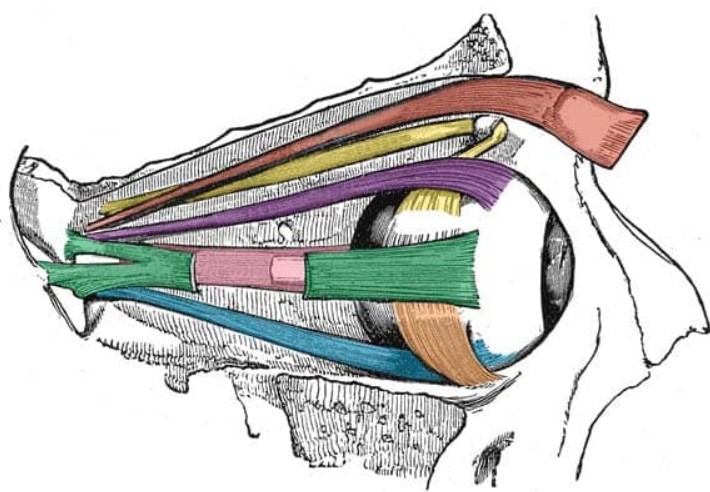
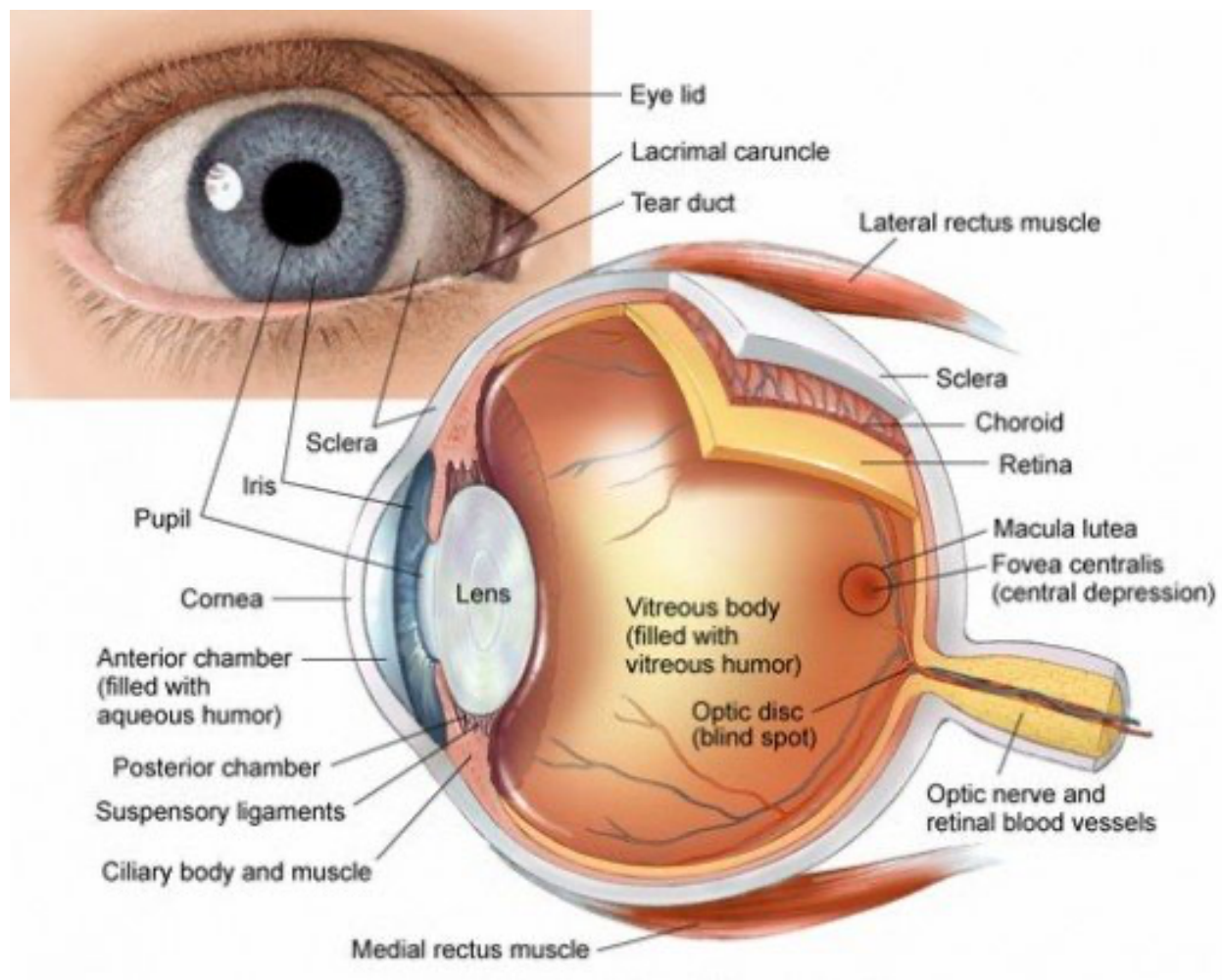
• SLOW PAIN

- Usually begins after 1 sec or more and may range from seconds to minutes.
- Described as slow, burning, aching, throbbing, nauseous pain and chronic pain.
- Associated with tissue destruction.









■	Levator palpebrae superioris
■	Superior oblique
■	Inferior oblique
■	Superior rectus
■	Medial rectus
■	Lateral rectus
■	Inferior rectus

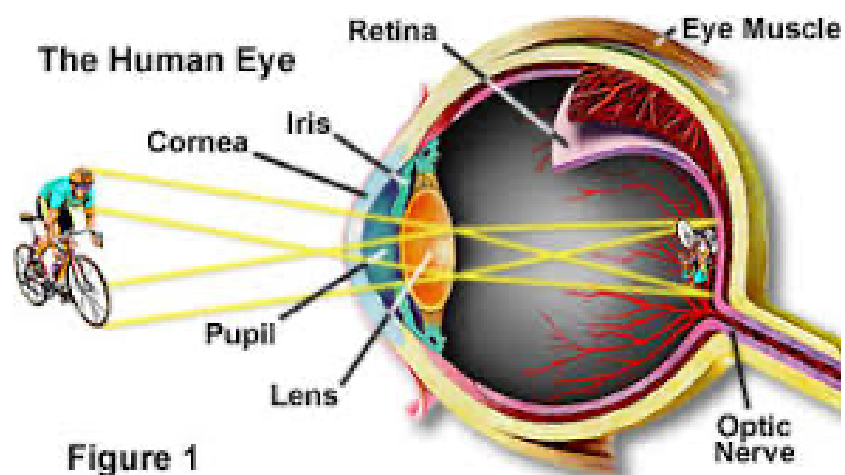
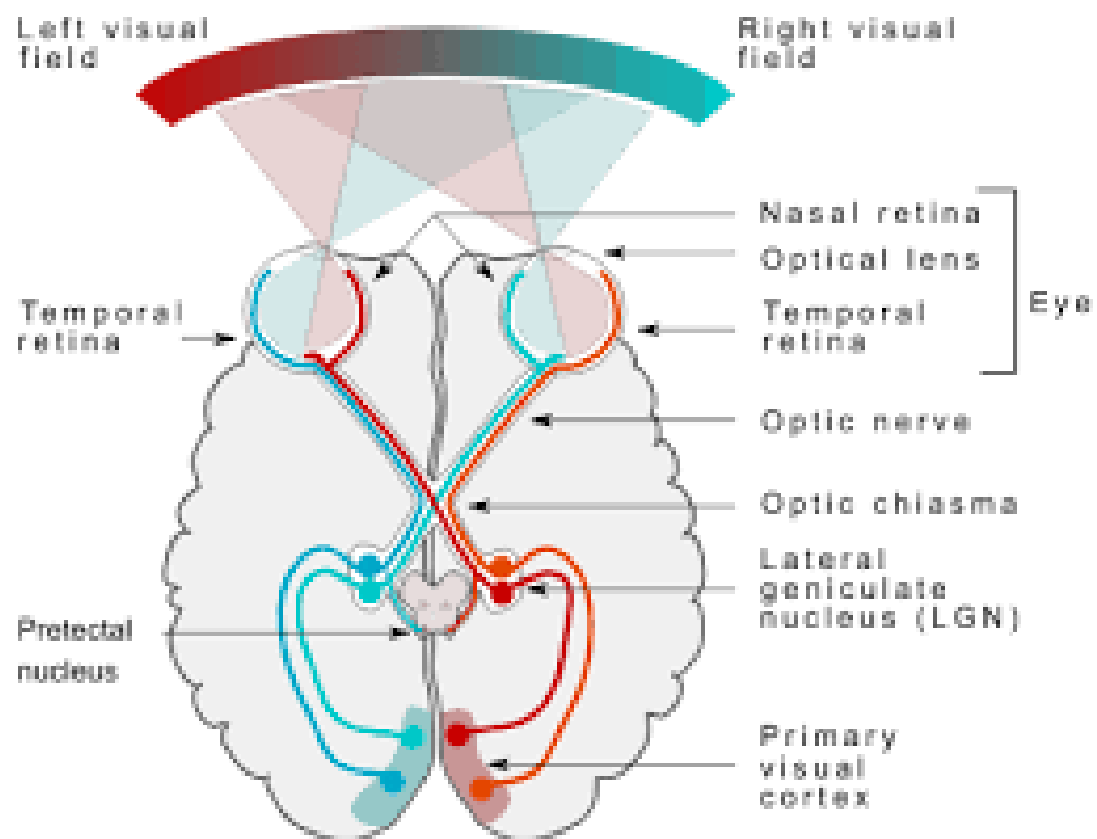
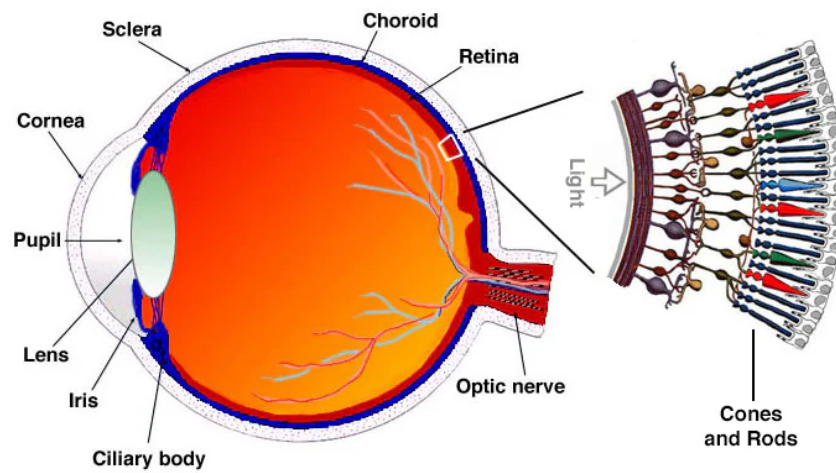
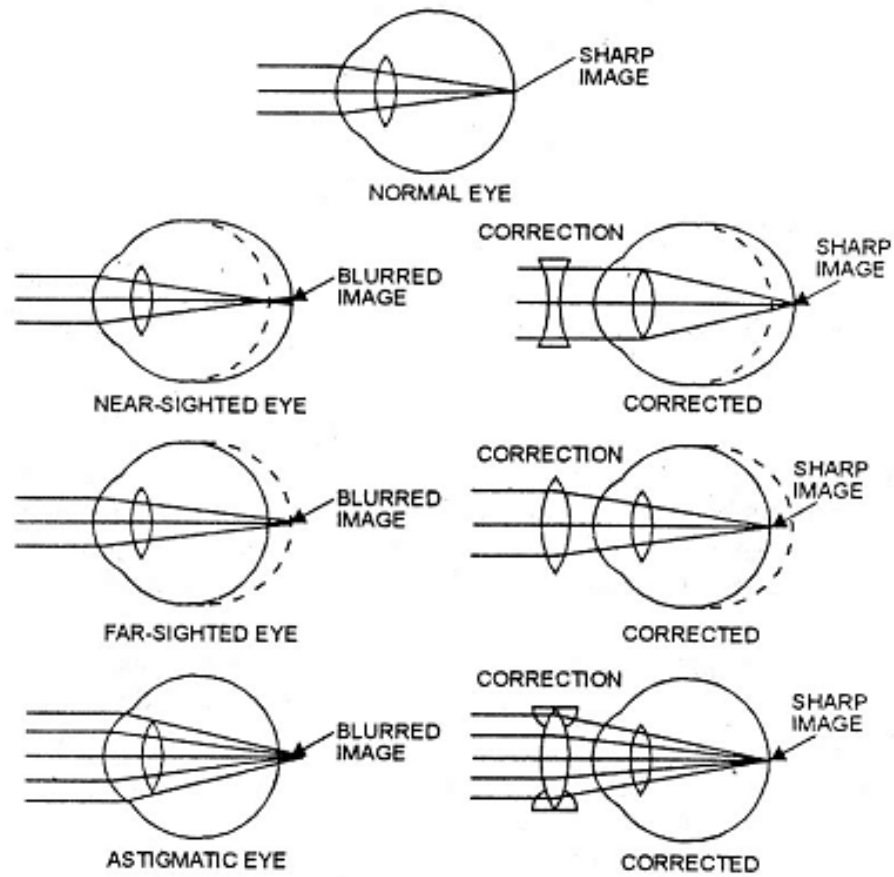
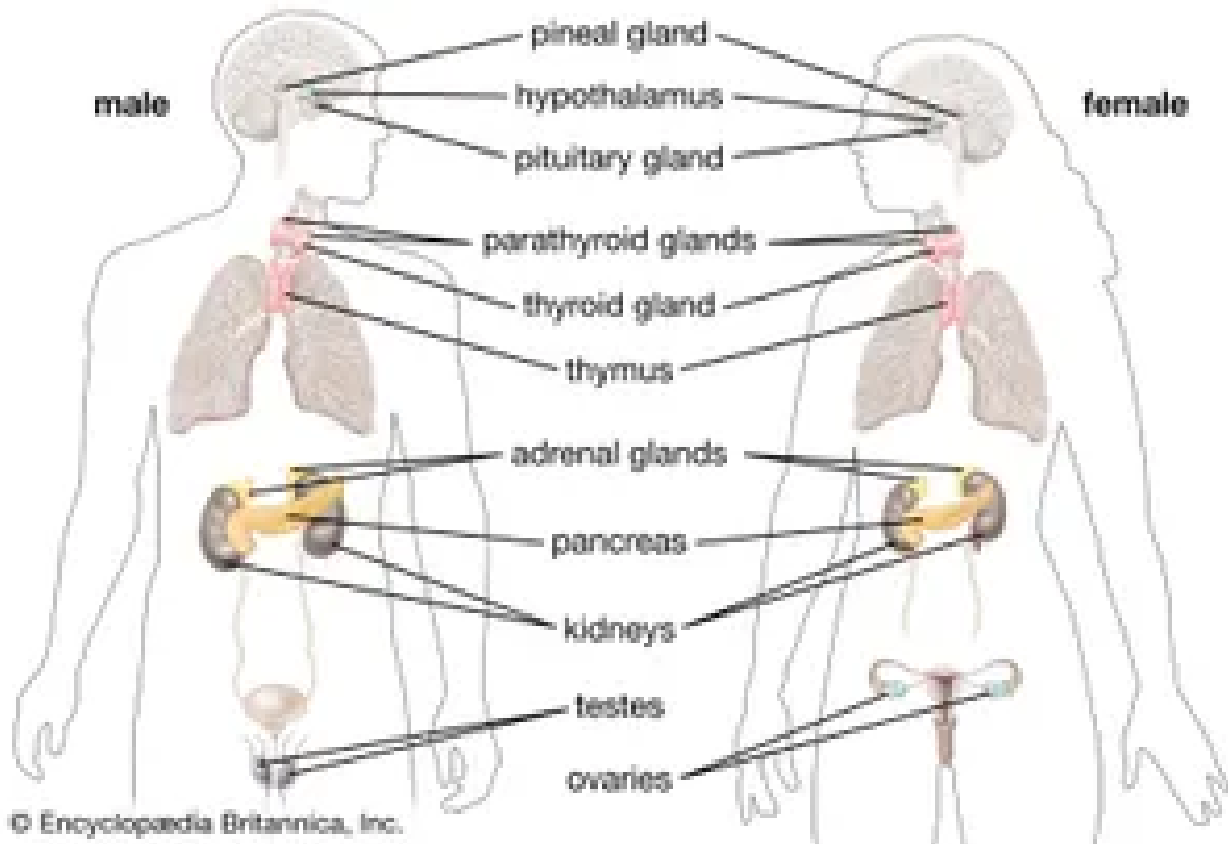


Figure 1



Chapter 13



Gland

Location

Function