

Nervous System

Spinal Cord

Central Cannal

CSF

Cerebrospinal Fluid

Supply nutrients to chord and brain

Carry away waste

Protect

Center of vertebra / cord

Units

Functional - Neuron

Parts

Dendrites

Soma

Axon

3:2 Sodium relationship

Sodium outside

Potassium inside

Support and Protect - Neuroglia

Shwann Cells

Wrapped on axons of some neurons

Contain Myelin - a fatty material

Adds nodes (of Ranvier) along path

speed signal

alternative path to normal signal along axon

Surrounds cells of reflex path- all our myelinated

not found central nervous system

Reflex Arc

Minimum 3 neurons in a response

Path

Stimulus

Receptor

Afferent (sensory) Neuron

Central Neuron

Efferent (Motor) Neuron

Effector (Muscle/Gland)

Response

Can be broken up

Anatomically / Structurally

Central

Brain

Spinal Cord

Periperal

Cranial Nerves

Spinal Nerves

C1-C8 (Count starts above bone) = 8 pair

(Count starts below bone)

T1-T12 = 12 pair

L1 - L5 = 5 pair

1 to 5 = 1 Sacrum = 5 pair

3 to 5 = 1 Coccal = 1 pair

Caudequina

Starts at Lumbar 3 or 4

Fanning out of Spinal cord

Place where injections are given

Dermatome

Area of body that a spinal nerve is responsible for

Physiologicaly / Functionally

Somatic (Voluntary)

Visceral (Autonomic / Involuntary)

Sympathetic (Adrenergic)

Fight or Flight

Neurotransmitter: Adrenaline (aka Epinepherine)

Controlling Nerves: Thoracic and Lumbar Nerves

Parasympathetic (Cholinergic)

Rest and Digest

Neurotransmitter: Acetylcholine

Controlling Nerves: Cranial and Sacral Nerves

Choroid Plexus

Blood/Brain Barrier

Creates Cerebrospinal Fluid

Selective passing of particles between blood and brain

Part of the Ventricle (pocket of CSF in brain)

4 major

Bundle of Axons

Nerve in Spinal

Tract in Brain

Meningies

Layers

Piamater (Inner)

Arachnoid

Duramater (Outer)

Protection

Contain CSF