## Lord Dhanvantari



## God of medicine

#### Topic

## Nervous System



- Nervous system is one of most complex and very important system among the body systems.
- >It controls and coordinate all activities of the body.

## Anatomically it is organised into two main divisions



- 1. Central Nervous System (CNS)
- 2. Peripheral Nervous System (PNS)

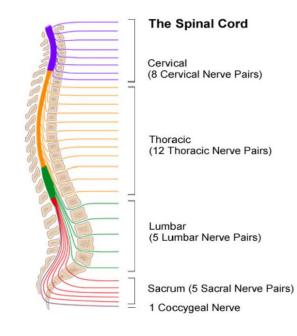
#### Central Nervous System



#### 1. Brain

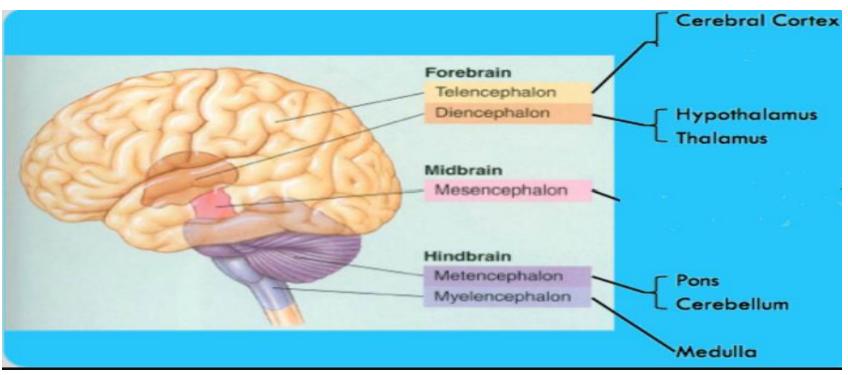
#### Behavior Short Term Memory Emotional Executive Functions Organization Concentration Decision-Making Sleep Center Language Comprehension . Vision. Migraine Headaches Reading (Rt.) Writing (Rt.) Math (Lt.) Fine Motor Skills Tension Headaches Speech (I.t.) Hearing, Balance and Co-Ordination

#### 2. Spinal cord



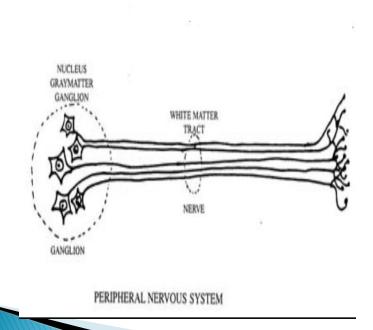
#### Common Brain Division

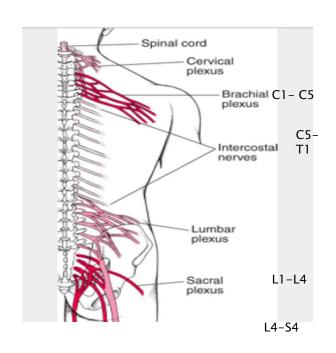




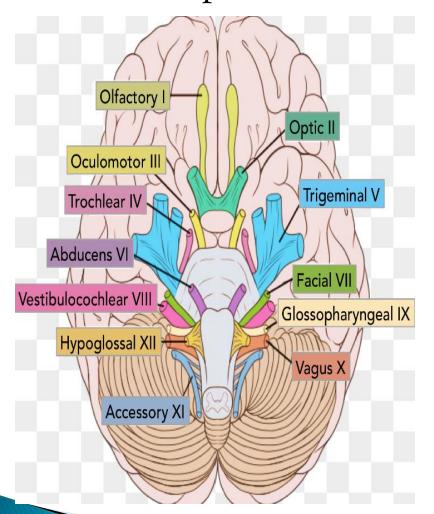
#### Peripheral Nervous System

## It consists of all the nervous tissue outside the central nervous system.





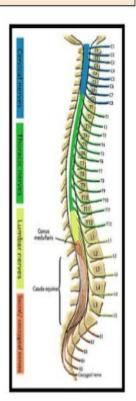
#### Cranial nerves 12 pairs



## Spinal nerves 31 pairs

#### **Spinal Nerve**

- Spinal nerves:
  - 1. 8 pairs of cervical spinal nerves
  - 2. 12 pairs of thoracic spinal nerves
  - 5 pairs of lumbar spinal nerves.
  - 4. 5 pairs of sacral spinal nerves
  - 1 pairs of coccyx spinal nerves.



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#### Cranial nerve Components

| Olfactory         | sensory |
|-------------------|---------|
| Optic             | sensory |
| Oculomotor        | motor   |
| Trochlear         | motor   |
| Trigeminal        | mixed   |
| Abducens          | motor   |
| Facial            | mixed   |
| Vestibulocochlear | sensory |
| Glassopharyngeal  | mixed   |
| Vagus             | mixed   |
| Accessory         | motor   |
| Hypoglossal       | motor   |

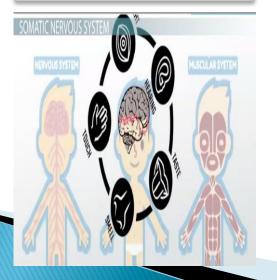
- ▶ 1,2,8– sensory
- ▶ 3,4,6,11,12- motor
- Rest- mixed Cranial nerves

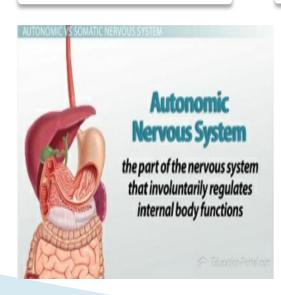
All spinal nerves are mixed in nature.

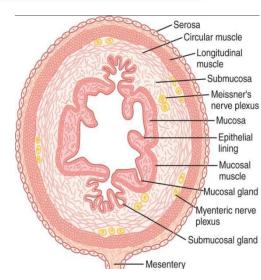
## Peripheral Nervous System (functionally)

Somatic nervous system

Autonomic nervous system Enteric nervous system







#### Autonomic nervous system

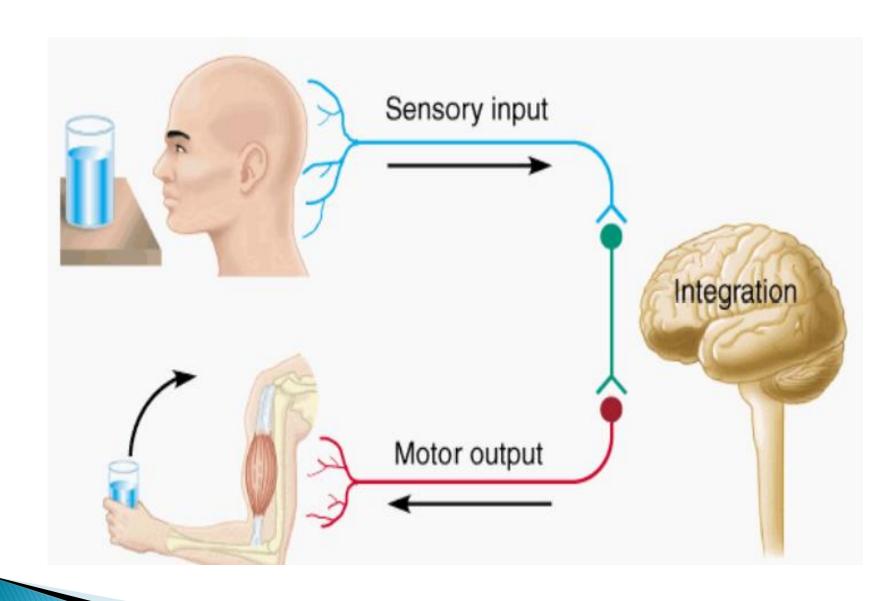
Sympathetic nervous system Parasympathetic nervous system





#### Importance of nervous system

- The nervous system carries out complex array of tasks. These are:-
- 1. Sensory function- It carries sensory information into brain and spinal cord through cranial and spinal nerves.
- 2. Integrative function- It processes sensory information by analysing it and making decision for appropriate response.
- 3. Motor function-It carries motor information from brain to effector organ and gives stimulation to effectors for responses.



# Thank You