

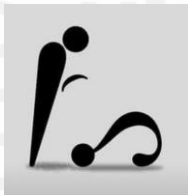


# Postures & Asanas

*S Bala Iyer*

yoganiti09@gmail.com

+91 98202 20961





# POSTURE

- **DEFINITION**

- A particular position assumed by a body with or without external support
- Involves a well coordinated action of several muscles, joints and associated nerves

- **IMPORTANCE of POSTURE**

- Provides stability and equilibrium of the body
- This forms the essential basis for movements which are superimposed
- Eg. Sitting posture in a chair adopted for writing

- **IDEAL POSTURE**

- Involves minimum voluntary efforts
- Involves minimum energy consumption

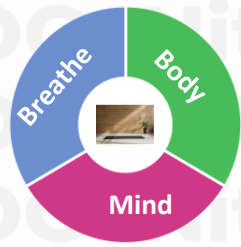




# POSTURE

- **CONTROL OF POSTURE**
  - Complex action depending on counteracting reflexes
- **INVOLUNTARY CONTROL : MAJOR CENTRES**
  - Basal Ganglia
  - Brainstem Nuclei
  - Reticular formation
- These co-ordinate with each other
- Send appropriate motor nerve impulses to the corresponding skeletal muscles





# POSTURE

- **RECEPTOR- TYPES**

1. Proprioceptors- muscle spindles, tendon organs, joints & labyrinth
2. Exteroceptors- Eyes, skin and ears
3. Visceroreceptors

- **RECEPTORS- MAJOR FUNCTION**

- Convey moment to moment about the **POSITION** of the **BODY PARTS** and their **MOVEMENTS**

- **RECEPTORS- MECHANISM**

- Inputs are **RECEIVED, INTEGRATED AND CO-ORDINATED** by the **SUB CORTICAL** centres
- Without the control from **CORTEX** & below the level of consciousness
- Motor impulse send to the concerned muscle for action

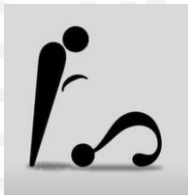




# POSTURE

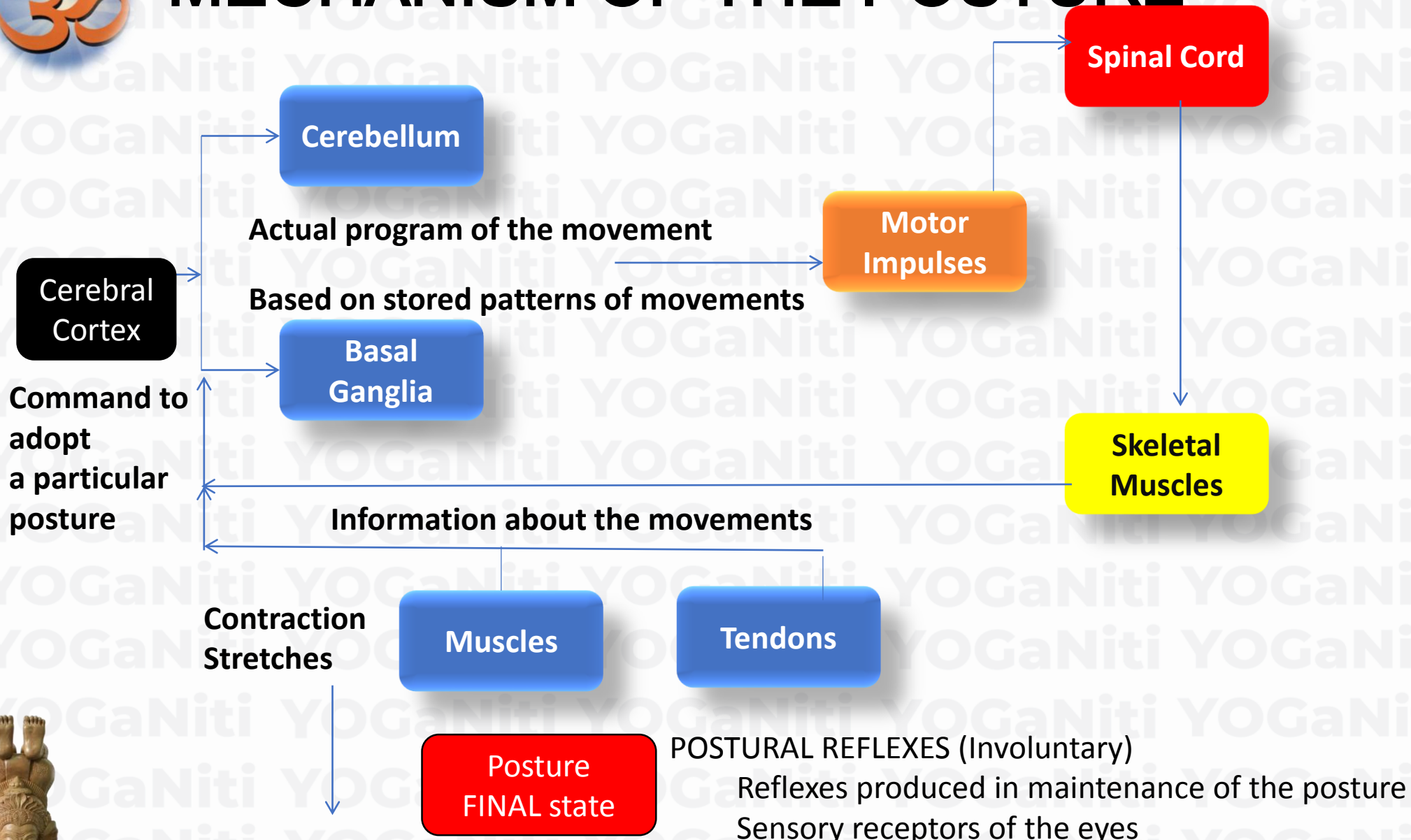


- Stretch & pressure receptors send information to spinal cord or lower brain centre
- Stretch muscles contract automatically as a result of stretch reflexes
- **POSTURAL REFLEXES**
  - Reflexes produced in maintenance of the posture
  - Sensory receptors of the eyes
- **MAJOR MUSCLES- ERECT POSTURE** against the force of gravity
  - Extensors & Flexors of the neck
  - Lower limbs
  - Trunk
  - Hip Muscles
- Cerebellum controls fast movements
- Basal Ganglia controls slow movements





# MECHANISM OF THE POSTURE





# TYPES OF POSTURAL REFLEXES



## POSTURAL REFLEXES

Reflexes produced in maintenance of the posture  
Sensory receptors of the eyes

### THREE TYPES

#### STATIC REFLEXES

- Maintain the position of the
- Body & its parts in the resting condition
- Produced by Proprioceptors- Sensitive to stretch & pressure
- Sensory inputs from the eyes
- Inputs from Labyrinth

#### RIGHTING REFLEXES

- Any deviation from the **NORMAL** or **BASIC** posture is corrected constantly

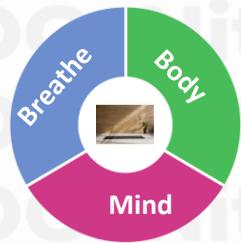
#### STATOKINETIC REFLEXES

- Brings about smooth, balanced and progressive movement
- Maintain an abnormal posture





# CLASSIFICATION OF POSTURES



## TWO TYPES

### INACTIVE

- Resting or sleeping
- All muscles relaxed
- Muscles required for circulation and respiration are active
- Reduced activity and minimal
  - Resting in easy chair
  - Sleeping on the back ie supine
- No muscular movement to maintain the posture against gravity
- Joints loose

### ACTIVE

- Neuromuscular coordination
  - Voluntary Muscles contraction
  - Involuntary Muscles contraction

### STATIC POSTURES

- Stably maintained for some length of time due to coordinated function of concerned muscles
- Joints stabilized
- State of equilibrium against force of gravity
- Semi Voluntary- one is not aware of the attained posture
- Eg-Sitting posture maintained in a semi relaxed state

### DYNAMIC POSTURES

- Modified and adjusted according to movements superimposed
- Works against force of gravity
- Most ASANAS are dynamic in nature



