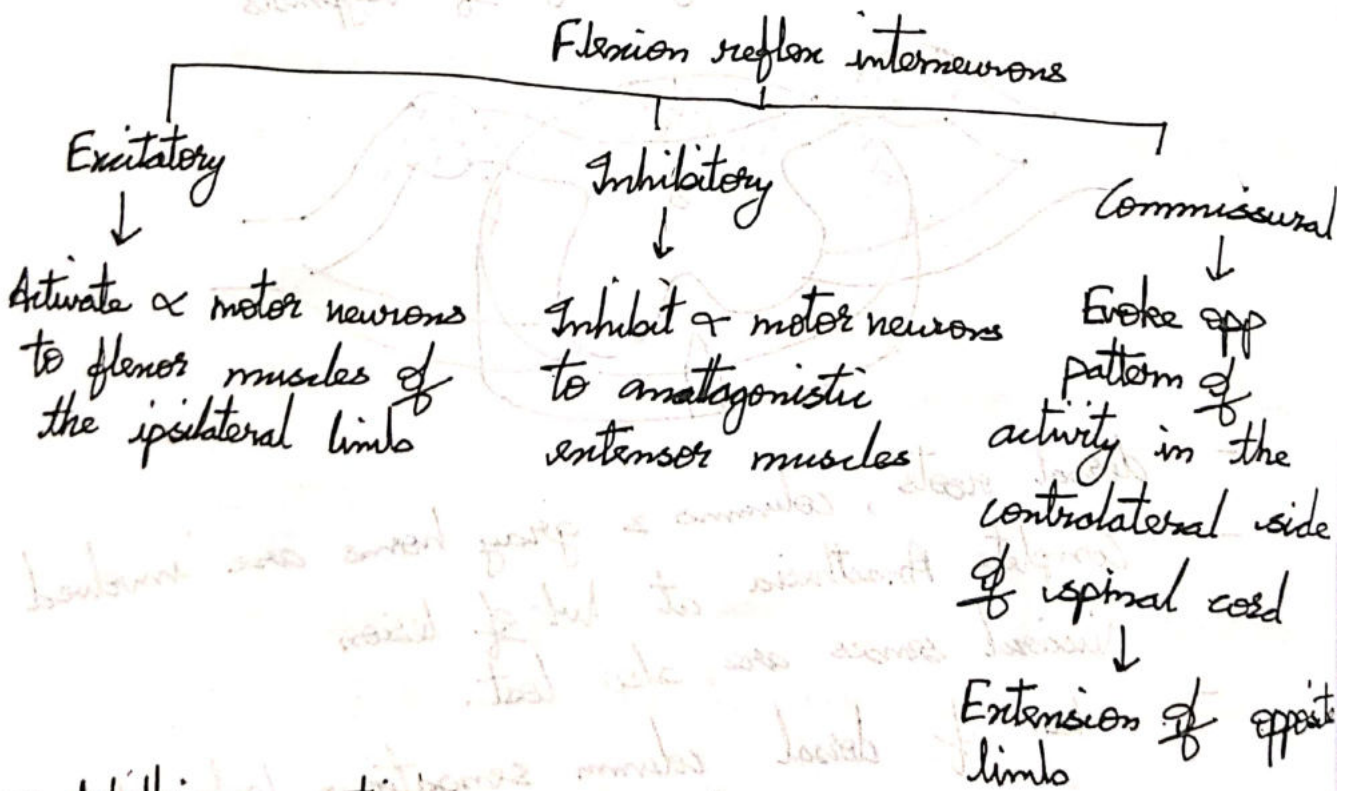


- The spinal cord contains neural circuits that serve as central pattern generators for locomotion.
- A CPG is a set of neurons and circuits capable of generating the rhythmic activity that underlies motor acts, even in the absence of sensory input.
- CPG circuits produce very regular rhythmic output that characterises stereotyped behaviour such as walking.
- The interneurons subserving the flexion reflexes also appear to be a part of CPG for generating locomotion.



- Walking motion could result from alternately activating the FR interneurons on each side

can be the output of CPG's

① Sensory input to spinal cord

② Commands coming through descending pathways.

This modification helps to adapt to changes in terrain on which a person is walking.

Locomotor regions :- A brain area when stimulated when stimulated leads to sustained locomotion.

Voluntary regulation of spinal CPGs originate in cerebral cortex. However much of the cortical influence on locomotion appears to be mediated via projections to brainstem regions known as locomotor regions.

Midbrain locomotor region is the best known [At WL of inf. colliculus] locomotor region. It is thought to initiate organise commands to initiate locomotion.

