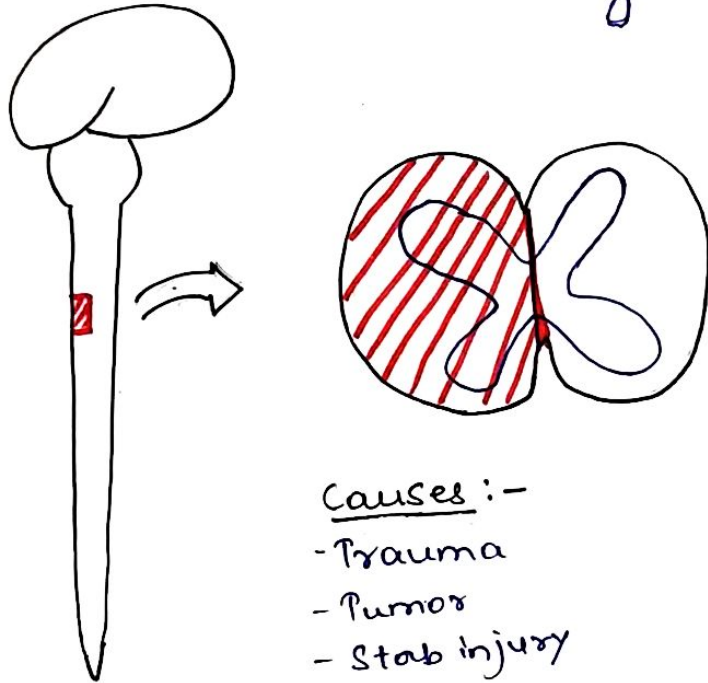


BROWN - SÉQUARD SYNDROME

(Hemisection of Spinal cord)

↳ Damage to $\frac{1}{2}$ of Spinal cord



Causes :-

- Trauma
- Tumors
- Stab injury
- Prolapse
- Multiple Sclerosis

Revise!

TRACTS

Ascending pathway

① Dorsal column tract

fasciculus gracilis

fasciculus cuneatus

Sensory signals from lower trunk & legs

Sensory signals from upper trunk & arms.

- pressure
- vibration
- fine touch
- proprioception (conscious)

② Antero-lateral spinothalamic tract

• crude touch

• pain
• temp.

③ Spinocerebellar tract

→ unconscious proprioception.

Descending pathway

① Corticospinal tract

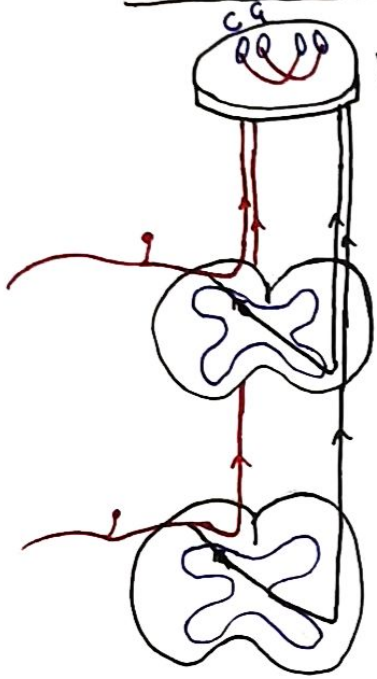
Lateral

Anterior

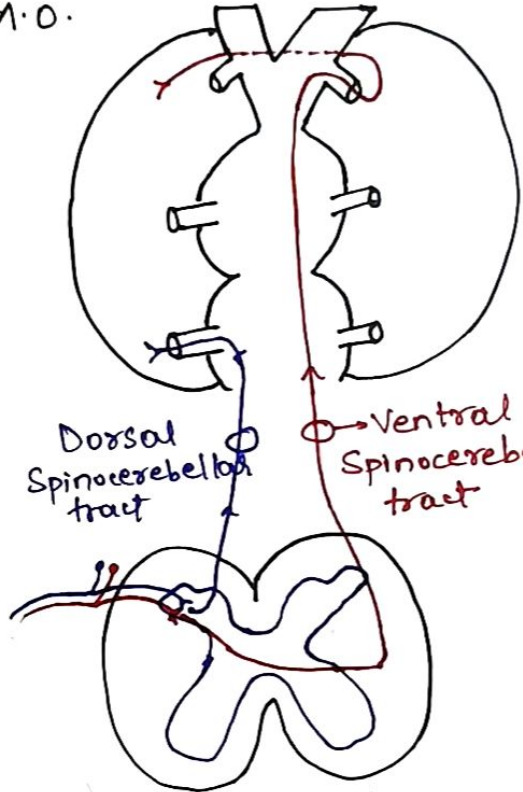
Brain → Muscle

ASCENDING PATHWAYS

DESCENDING PATHWAY

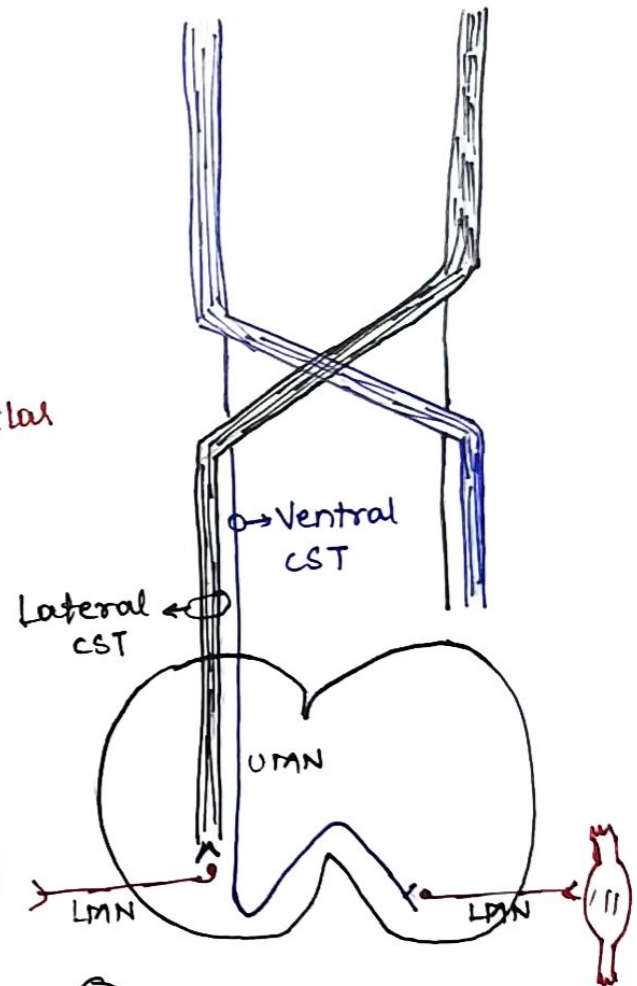


① Dorsal column tract.



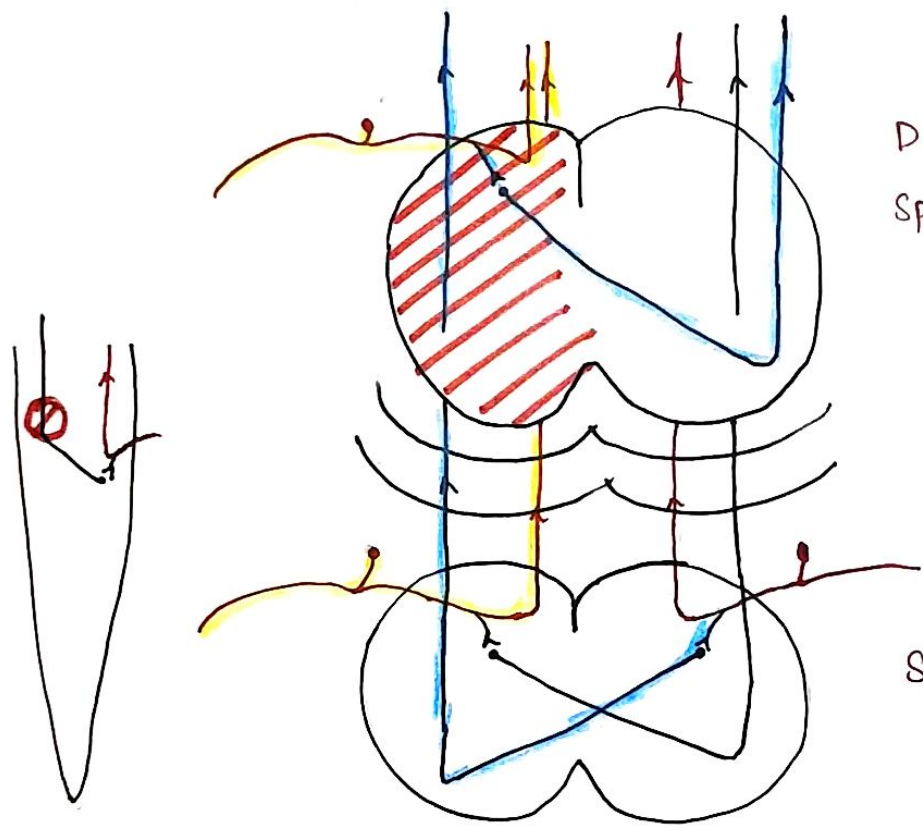
③ Spinothalamic tract.

② Anterolateral spinothalamic tract.



④ Corticospinal tract.

Effect on ① Dorsal Column Tract
 ② Anterolateral Spinothalamic Tract.



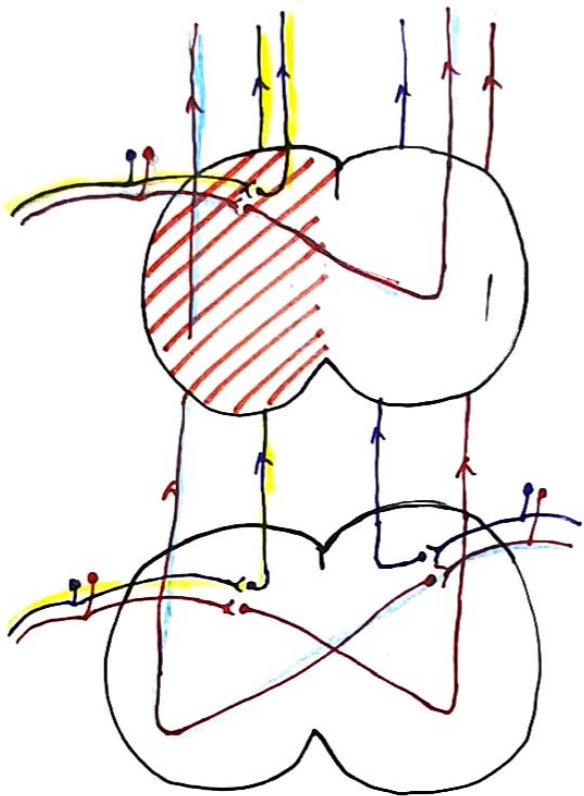
At level of lesion

DCML sensations :- I/L loss
 Spinothalamic :- I/L loss
 signals

Below level of lesion

DCML sensations :- I/L loss
 Spinothalamic :- c/L Loss from
 signals 2-3 segments below
 lesion.

Effect on ③ Spinocerebellar tract.



At level of lesion

Dorsal SCT :- I/L dystaxia

Ventral SCT :- I/L dystaxia

Below level of lesion

Dorsal SCT :- I/L dystaxia

Ventral SCT :- c/L dystaxia