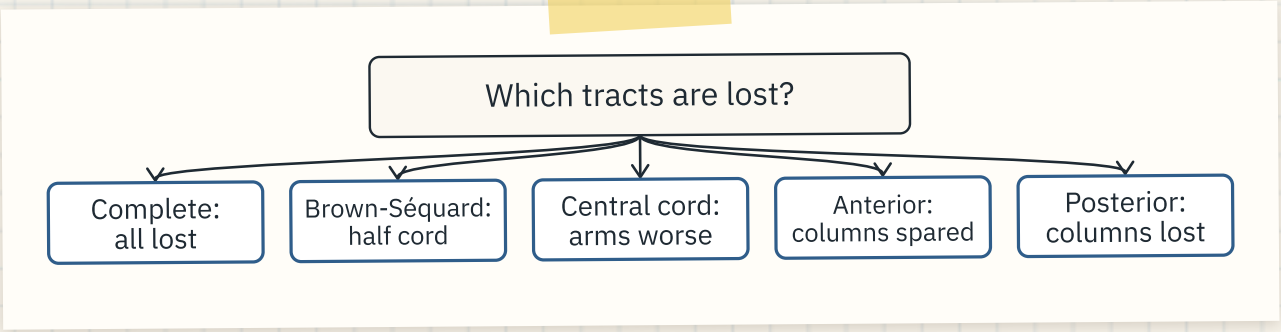
Spinal cord syndromes

Rebuild each pattern from three tracts



Step by step

1. Complete: all lost below; flaccid, then spastic
2. Brown-Séquard: same-side motor, vibration, position; opposite pain, temperature
3. Central cord: arms and hands worse than legs
4. Anterior cord: motor, pain, temperature lost; vibration, position kept
5. Posterior column: vibration lost; Romberg positive

Tract	Carries	Side
Lateral corticospinal	Movement	Same
Dorsal column	Vibration, position	Same
Spinothalamic	Pain, temperature	Opposite

Three tracts and their sides

Rule of thumb

One anterior spinal artery: front two thirds

Two posterior spinal arteries: back of the cord

Corticospinal and dorsal column: same side; spinothalamic: opposite side

Exam traps

- Spinal shock is flaccid and areflexic; spasticity can follow as reflexes return.
- Brown-Séquard pain loss begins about two levels below, on the opposite side.
- The central cord arm map is classic teaching and is debated.
- In vitamin B12 deficiency, the lateral corticospinal tracts are also hit.

Spinal cord syndromes compared: rebuild each from three tracts

Video, written lesson, practice question and sources: medservatory.com/usmle-step-1/neuroanatomy-localisation/spinal-cord-syndromes-compared

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