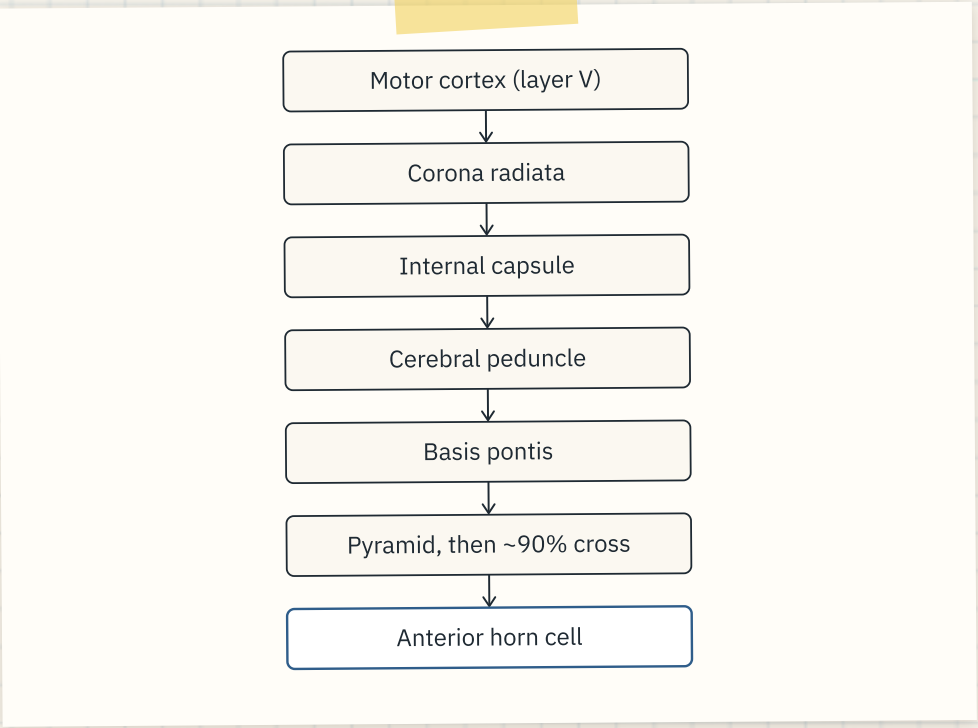
Corticospinal tract

Cortex to anterior horn, and lesion localisation



Step by step

1. Cortex: layer V pyramidal neurons
2. Corona radiata, then internal capsule
3. Peduncle, basis pontis, pyramid
4. Decussation: about 90% cross
5. Anterior horn cell, then muscle

Lesion	Deficit
Cortex	Focal weakness + cortical signs (aphasia, neglect)
Internal capsule	Opposite lower face, arm, leg; forehead spared; no cortical signs
Medullary pyramid	Opposite limbs; face spared
Cord (below decussation)	Same-side limbs; face spared

Deficit by lesion level

Rule of thumb

Above the decussation: opposite side
Below it, in the cord: same side
Face, arm, leg, no cortical signs: capsule

Exam traps

- A spared face favours the lower brainstem or cord, but a small capsule lesion can spare it too.
- The forehead is spared in a capsule lesion because it has input from both hemispheres.
- A cord lesion causes same-side weakness below the lesion, with the face spared.
- The capsule lesion is the classic lacunar stroke.

Corticospinal tract: from cortex to anterior horn

Video, written lesson, practice question and sources: medservatory.com/usmle-step-1/neuroanatomy-localisation/internal-capsule-corticospinal-tract

For exam study only, not medical advice. Follow local guidelines and your lab's ranges.
© 2026 Medservatory, a project of ADMR Solutions Ltd. Free to print and share for personal study.