

# Corticospinal tract

The cortico-spinal tract is important for conveying sensory information to the brain and relaying output signals from the brain to the motor units

## Origin

- It originates at the pre-central gyrus and at the posterior part of the frontal gyrus (areas 4 to 6)
- All fibres originate from the 5th layer of the cortex

## Course

1. Axons descend from the centrum semiovale to the posterior limb of the internal capsule
  2. From the internal capsule, fibres continue to the middle portion of the cerebral crura
  3. Fibres continue to the basal part of the pons, where they form connections with pontine nuclei
  4. Exiting the pons, two columns form on the external surface of the medulla oblongata
- 80% fibres decussate (cross-over) at the junction between the spinal cord and medulla oblongata and continue to descend on the lateral aspect of the spinal white matter as the lateral cortico-spinal tract
  - Those that don't decussate, continue in the anterior spinal white matter as the anterior cortico-spinal tract

## Termination

- The tracts terminate in the lateral and dorsal horns of the spinal cord and can synapse with motor neurons

## Function

- Voluntary and discrete movements as well as control of sensory inputs

## Links

## Bibliography

SNELL, Richard S. *Clinical Anatomy by Regions*. 8th Edition edition. 2004. ISBN 978-0-7817-6404-9.