

Study Guide

Chapter 13 / Spinal Cord, Spinal Nerves and Somatic Reflexes

1. What is the gross anatomy of the spinal cord (Fig 13.2)?
2. In the spinal cord, how is the white and grey matter organized and what do these areas represent?
3. What are spinal tracts? How are they arranged in the spinal cord?
4. How are these terms related to the spinal cord? (decussation, ipsilateral, contralateral)
5. In ascending tracts, how many neurons form the path between the stimuli and the destination of the signal in the cerebral cortex? What names are given to these neurons?
6. In descending tracts, how many neurons form the path between the origin of the motor signal and the target organ?
7. What is the anatomy of a nerve (Fig 13.8)?
8. What is a mixed nerve?
9. What is the function of the rami of the spinal nerves (Fig 13.13)?
10. What is the nature of reflexes (4)?
11. What is the path traveled by a somatic reflex arc (5)?
12. What is the “fundamental” role of a muscle spindle (page 504 / first column, first paragraph)?
13. What is the function of a stretch reflex?
14. What is a monosynaptic reflex arc?
15. What is a flexor reflex?
16. What is a polysynaptic reflex arc?
17. How do flexor and crossed extension reflexes work (Fig 13.22)?
18. What is the Golgi tendon reflex?