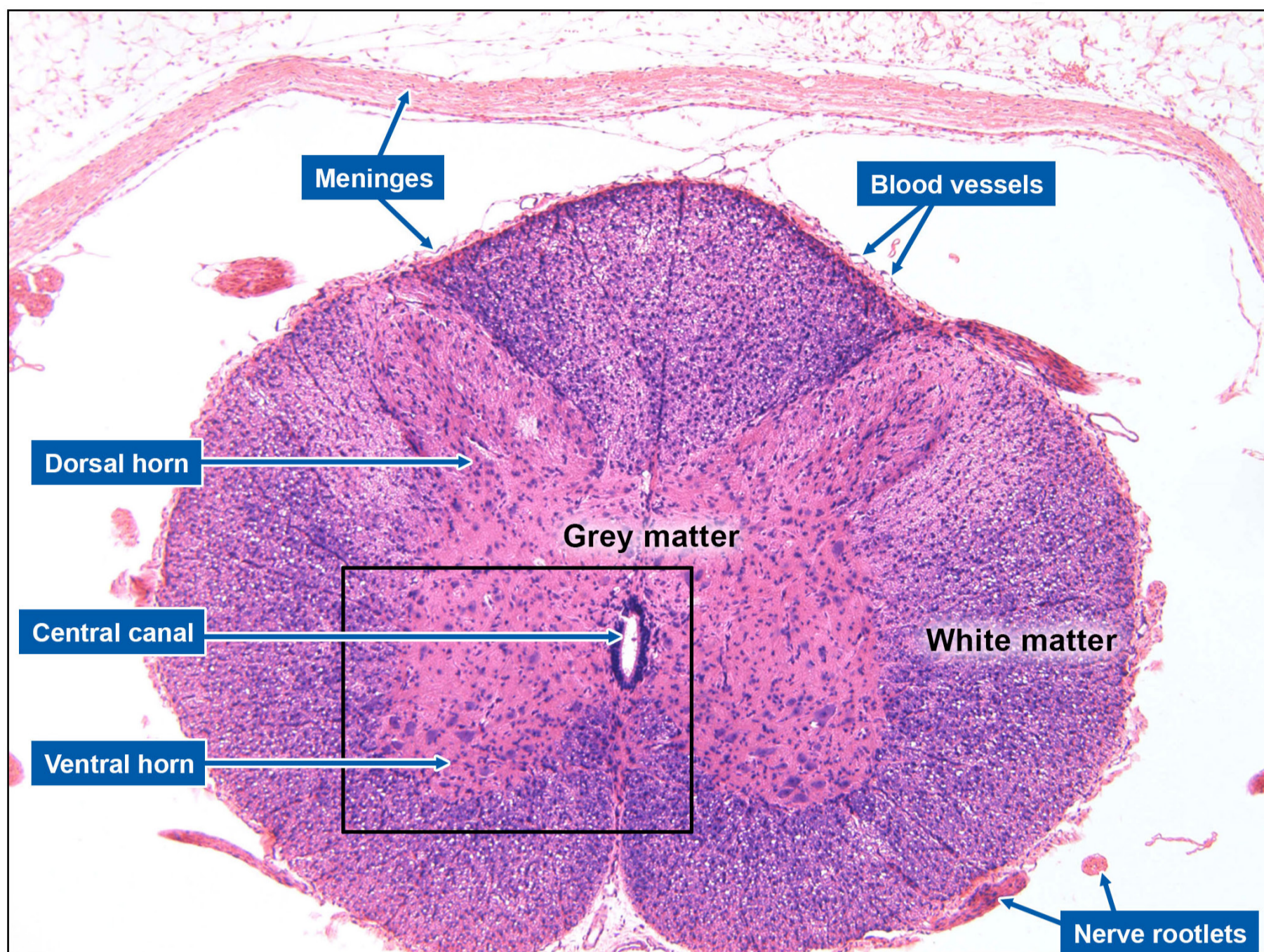


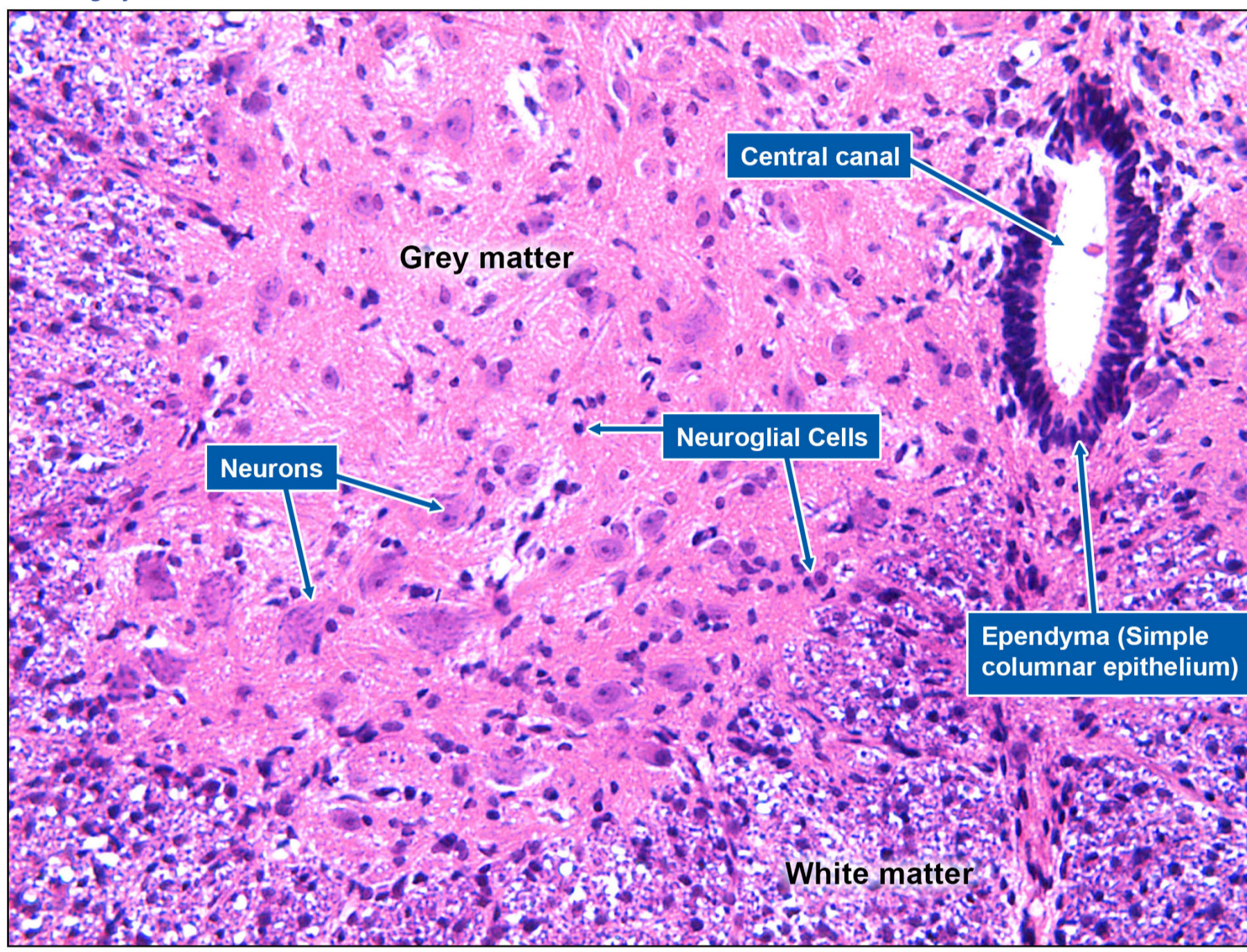
SPINAL CORD

Nervous System

Cross-section of spinal cord carrying motor tracts (descending tracts) from Motor Cortex (Cerebrum) to the periphery and carries Sensory Tracts (ascending tracts) from the periphery (example skin) to the Sensory Cortex (Cerebrum).



Low magnification



High magnification

- The nerve cell, or neuron, is the structural and functional unit of nervous tissue.
- Nonneuronal supporting cells are called neuroglia. They are homeostatic and defensive cells of the nervous system.
- Spinal cord is surrounded by connective tissue layers known as meninges.
- Spinal cord is subdivided into a central H shaped region of grey matter and a surrounding layer of white matter.
- Grey matter consists mainly of perikaryon (cell body) of neurons, their dendrites, and surrounding neuroglial cells and is arranged into two dorsal and two ventral horns.
- The dorsal horn is the location of sensory synapses, the ventral horn is the location of motor neuron cell bodies.
- White matter consists of myelinated axons and lacks cell bodies.
- Central canal lies in the “centre” of H shaped grey matter, lined by ependyma.
- CSF circulates in the lumen of central canal lined by ependymal cells; central canal of spinal cord is continuous with the ventricles of the brain.
- Most cranial nerves are part of the PNS (peripheral nervous system).