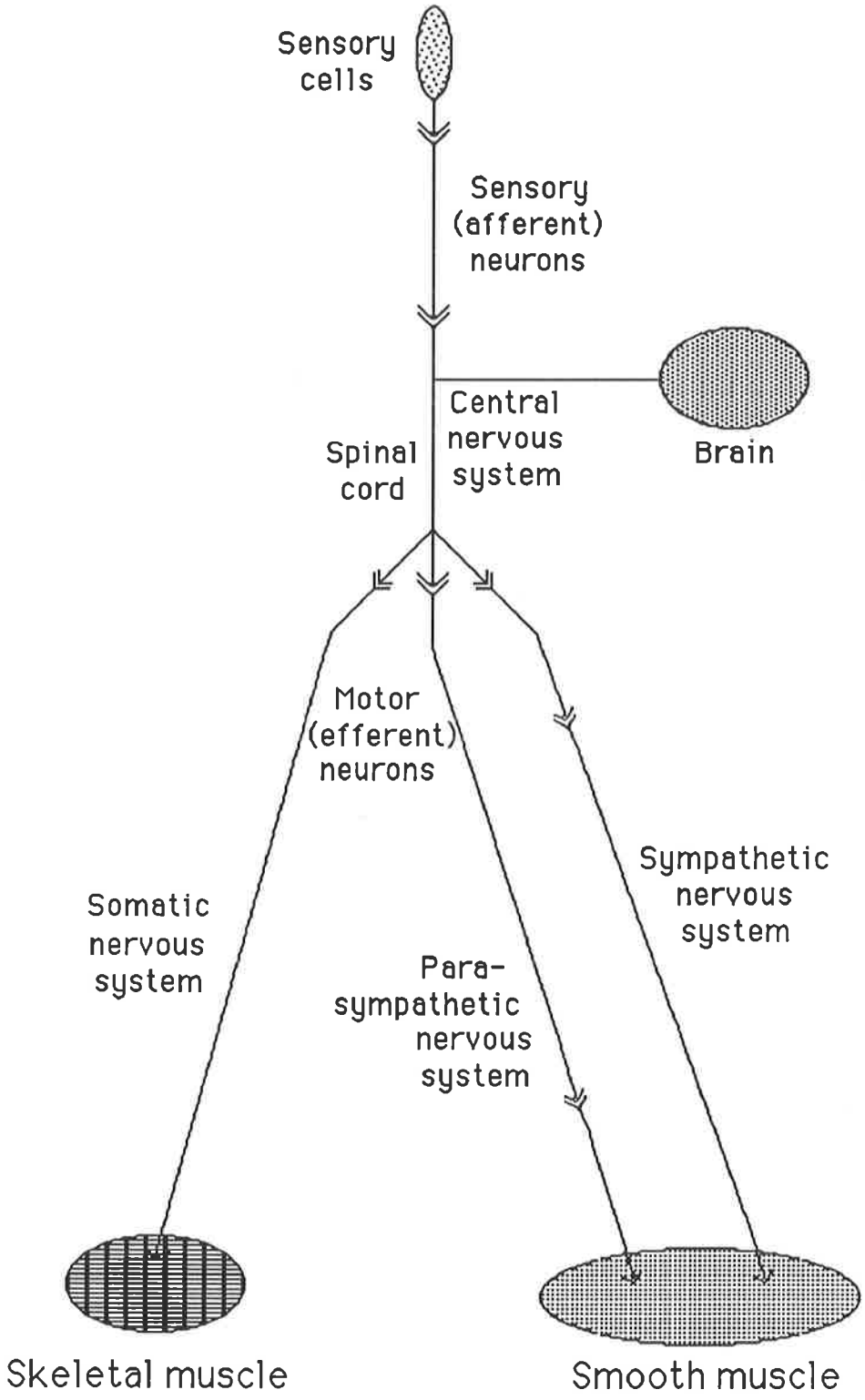
MAMMALIAN NERVOUS SYSTEM



PERIPHERAL NERVOUS SYSTEM

I. **Sensory Neurons** - Carry information to CNS

II. **Motor Neurons** - Carry information away from CNS

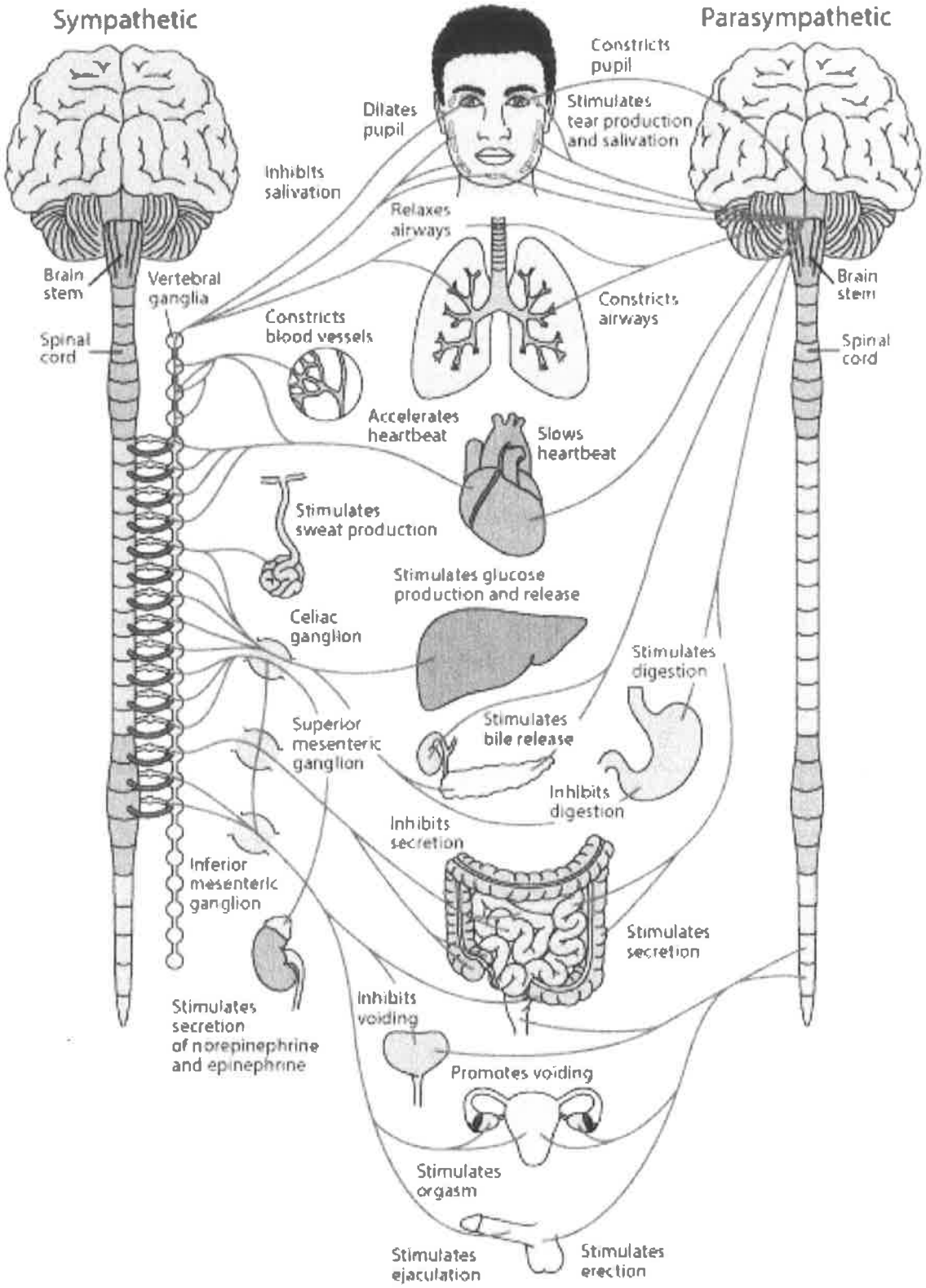
A. **Somatic Nervous System** - Controls skeletal muscles;
No synapse before target

B. **Autonomic Nervous System** - Controls smooth muscles;
Have synapse before target

1. **Sympathetic N.S.** - Prepares the body to take action;
Postsynaptic neurons release noradrenaline
Emanate from thoracic or lumbar regions
Presynaptic neurons short, postsynaptic long
Have a chain of ganglia adjacent to spinal cord

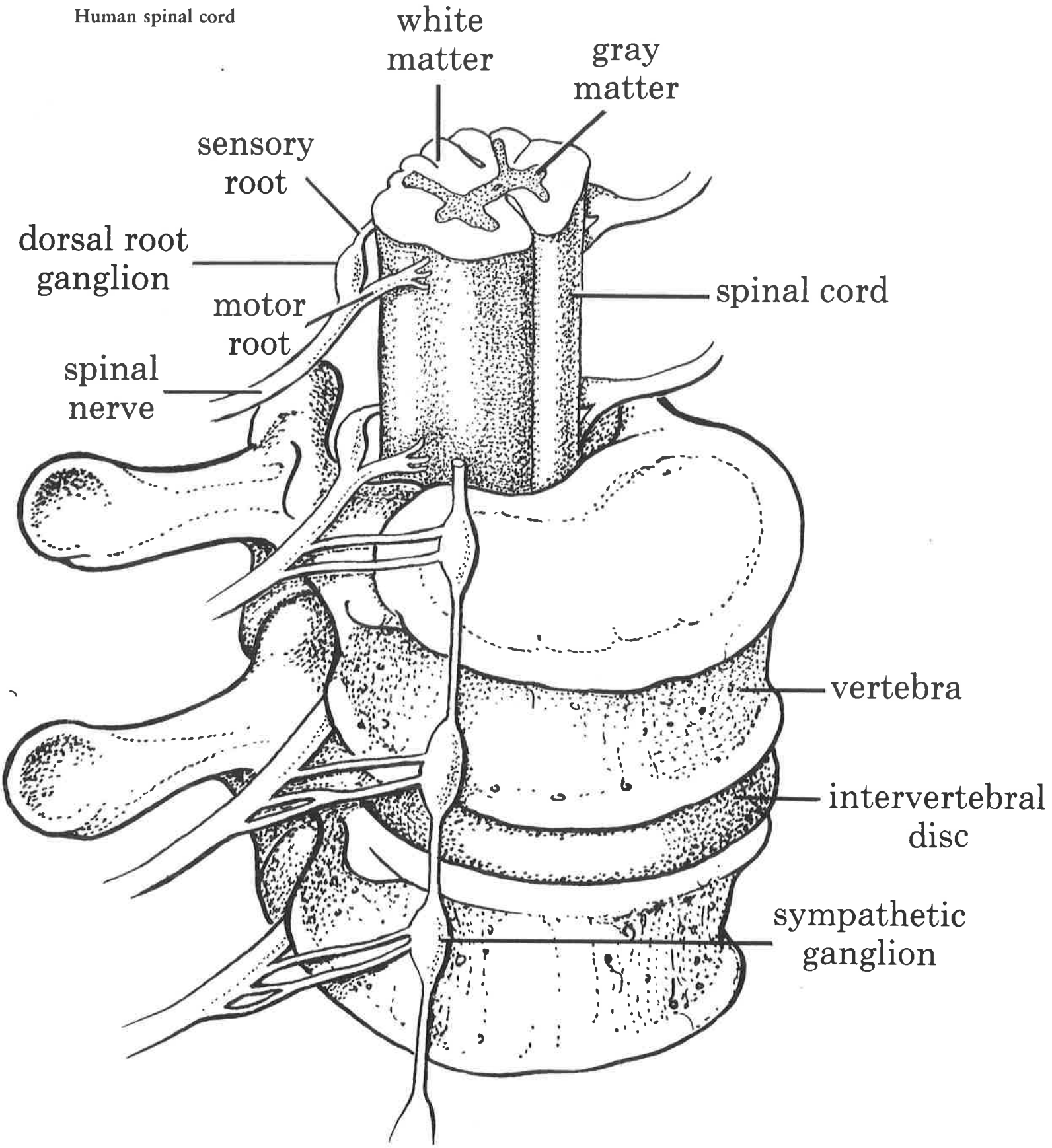
2. **Parasympathetic N.S.** - Calms the body;
Postsynaptic neurons release acetylcholine
Emanate from cranial or pelvic regions
Presynaptic neurons long, postsynaptic short
No chain of ganglia adjacent to spinal cord

Schematic of the Autonomic Nervous System

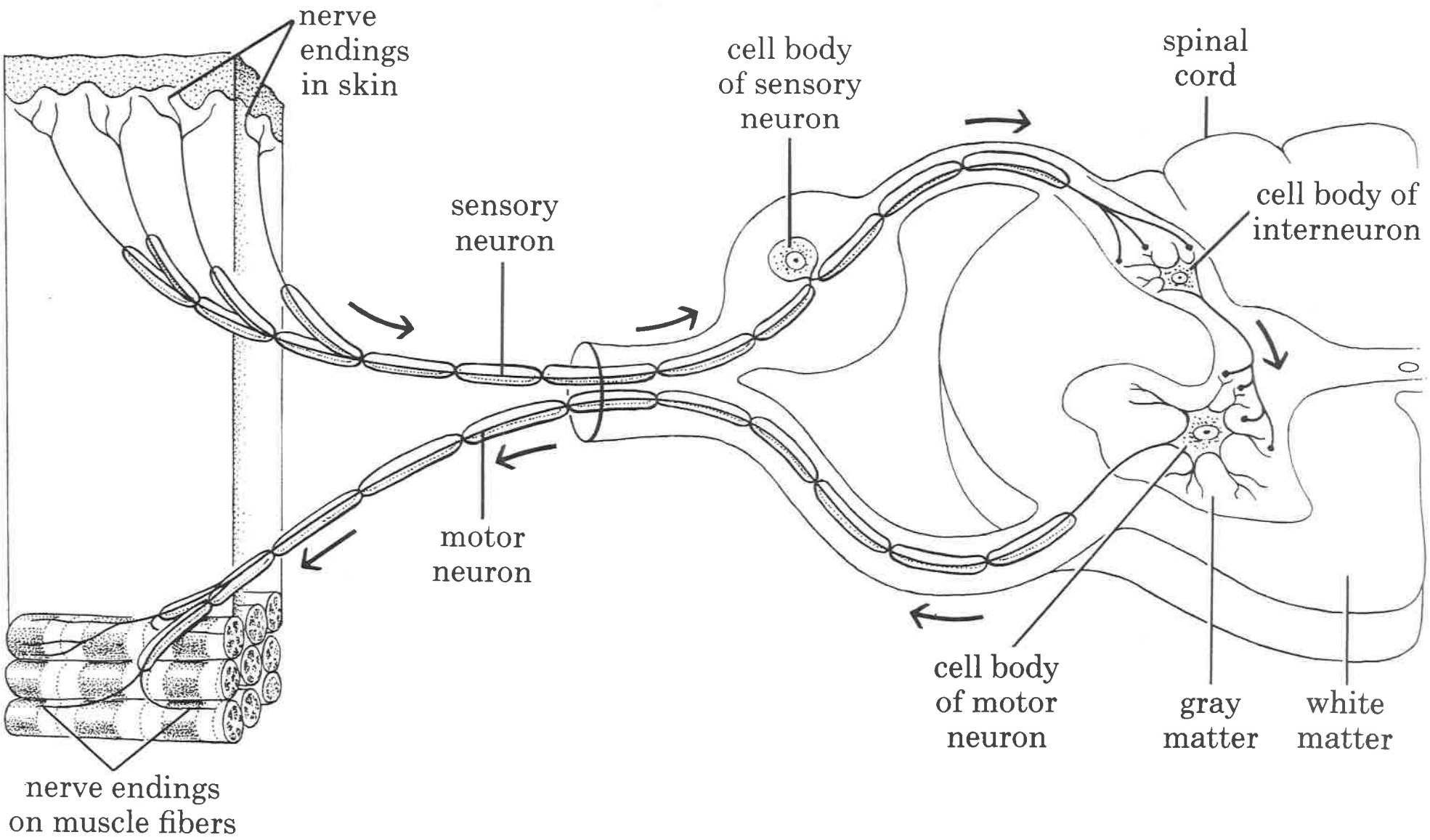


https://www.merckmanuals.com/en-pr/home/brain,-spinal-cord,-and-nerve-disorders/autonomic-nervous-system-disorders/overview-of-the-autonomic-nervous-system

Transparency 126
Figure 41–4, page 843
Human spinal cord



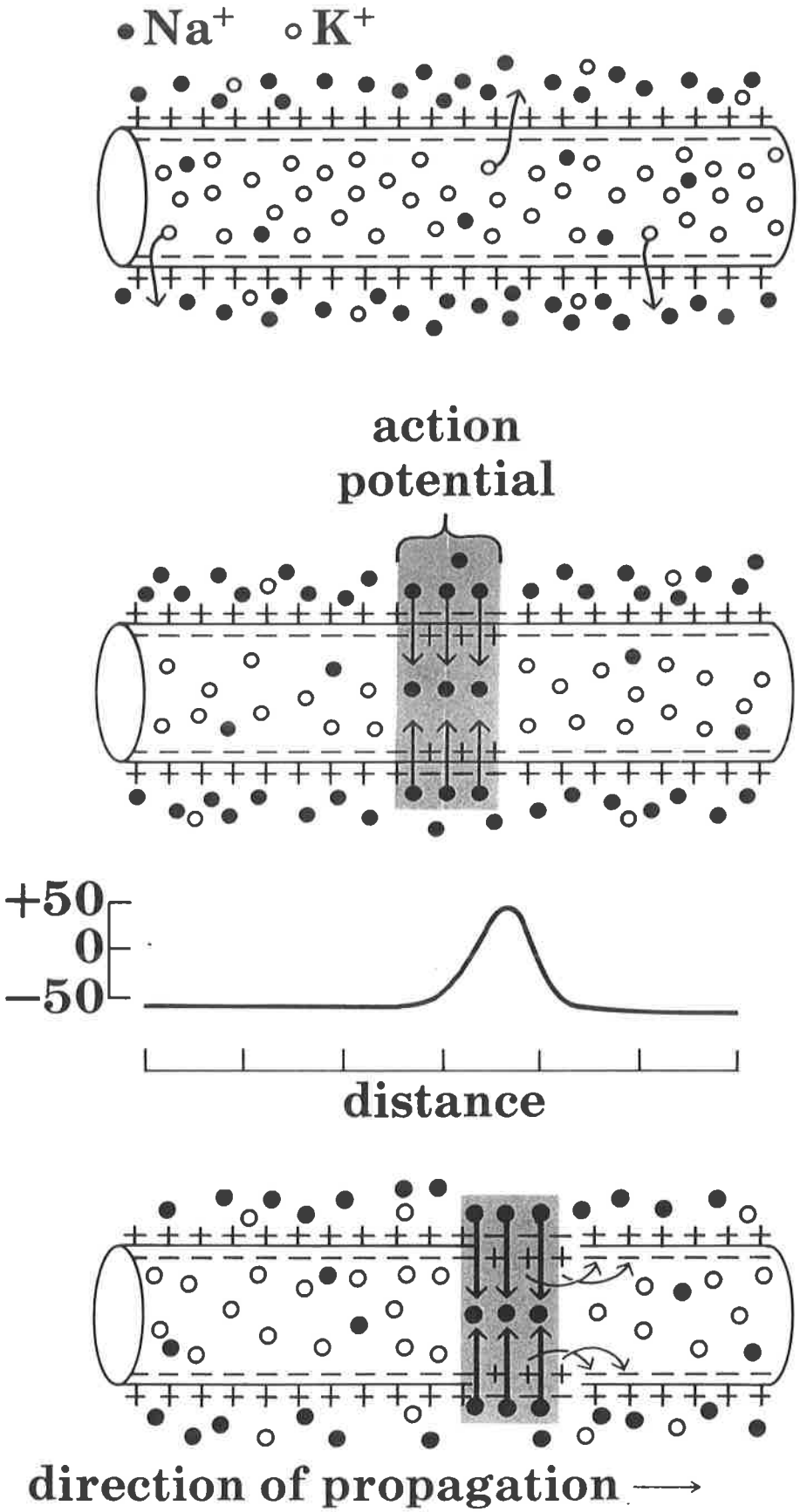
Transparency 127
Figure 41–6, page 844
A spinal reflex arc



Transparency 128

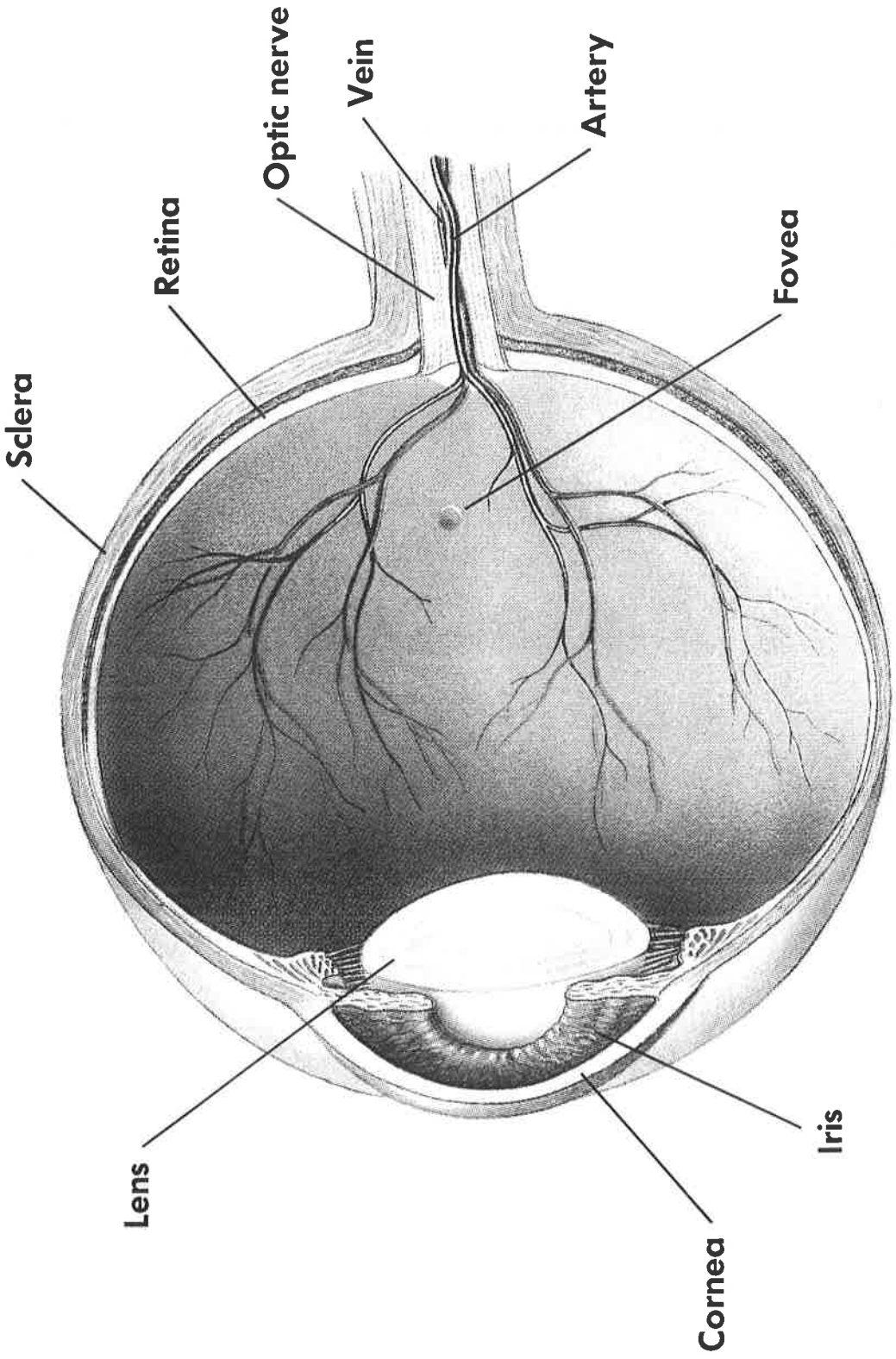
Figures 41–13, 41–14, 41–15, pages 850, 851

Resting axon, action potential, and propagation of action potential



T 88

Structure of the human eye (Figure 46-17)



T 87

Structure of the human ear (Figure 46-14)