

## Module 14 LO3

# Parasympathetic Nervous System

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# 3. Parasympathetic Nervous System

## Preganglionic Neurons

Located in brain stem and in lateral portion of anterior gray horns of spinal segments  $S_2$ - $S_4$



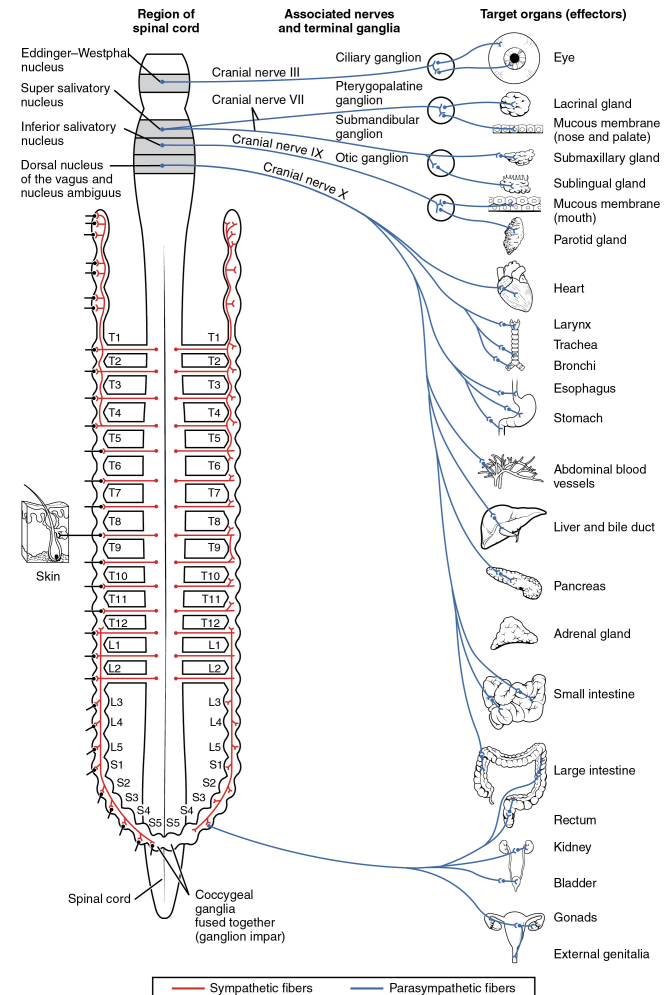
## Ganglionic Neurons

Located in or near target organ. Preganglionic fibers release Ach, which is excitatory and stimulates ganglionic neurons



## Target Organs

All postganglionic fibers release Ach at neuroeffector junctions. The effect is usually inhibitory, but may vary depending on nature of receptor on the target cell membrane.



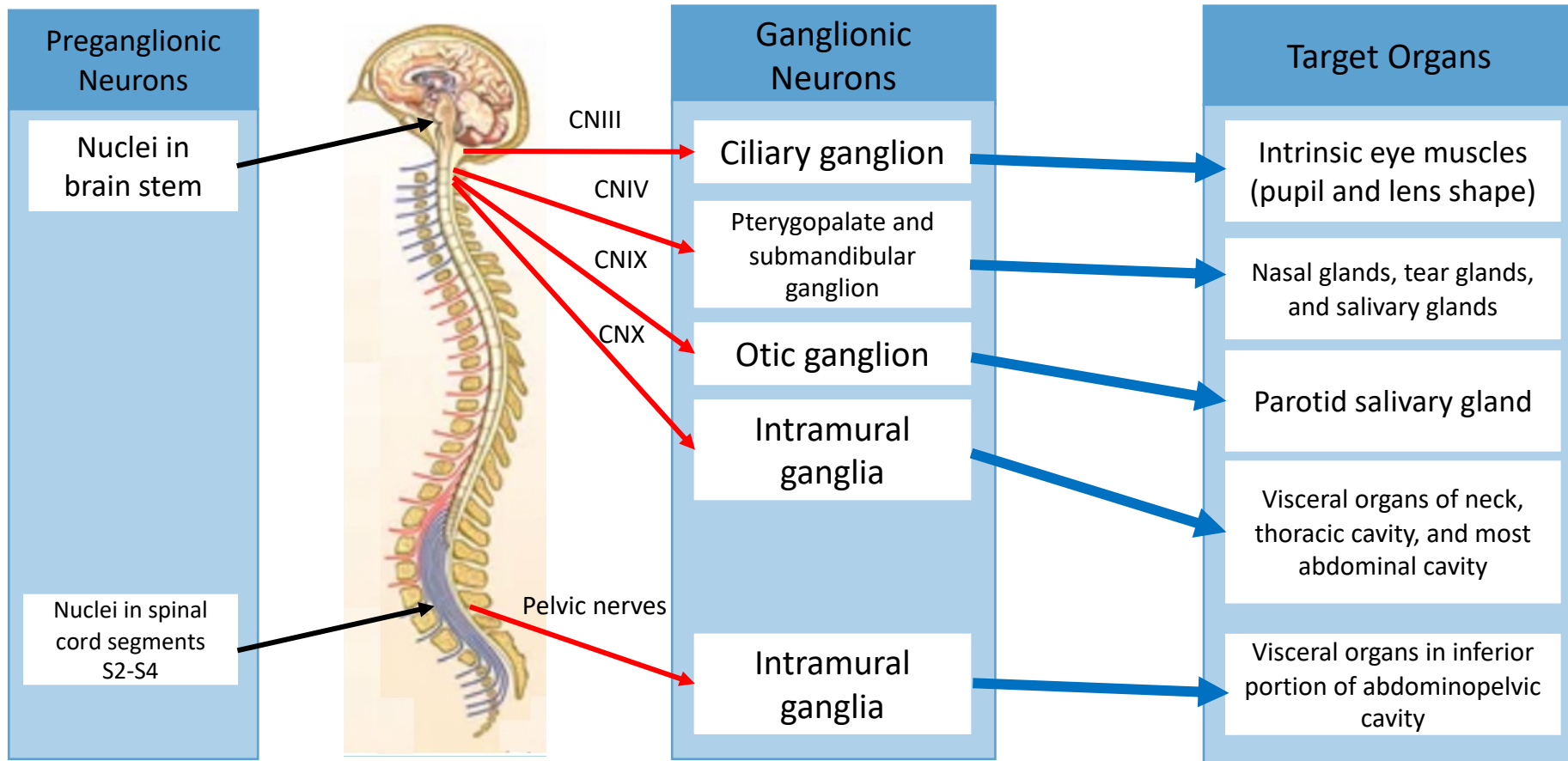
# Parasympathetic Division

- Includes the following:

1. Preganglionic neurons located in brain stem and sacral segments of spinal cord
2. Ganglionic neurons in peripheral ganglia located close to target organs

Key:

→ Preganglionic fibers  
→ Postganglionic fibers



# Parasympathetic Motor Pathway

