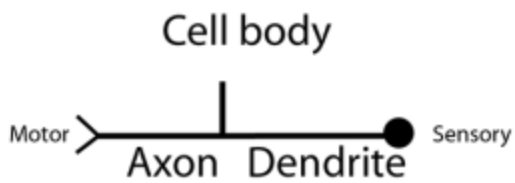
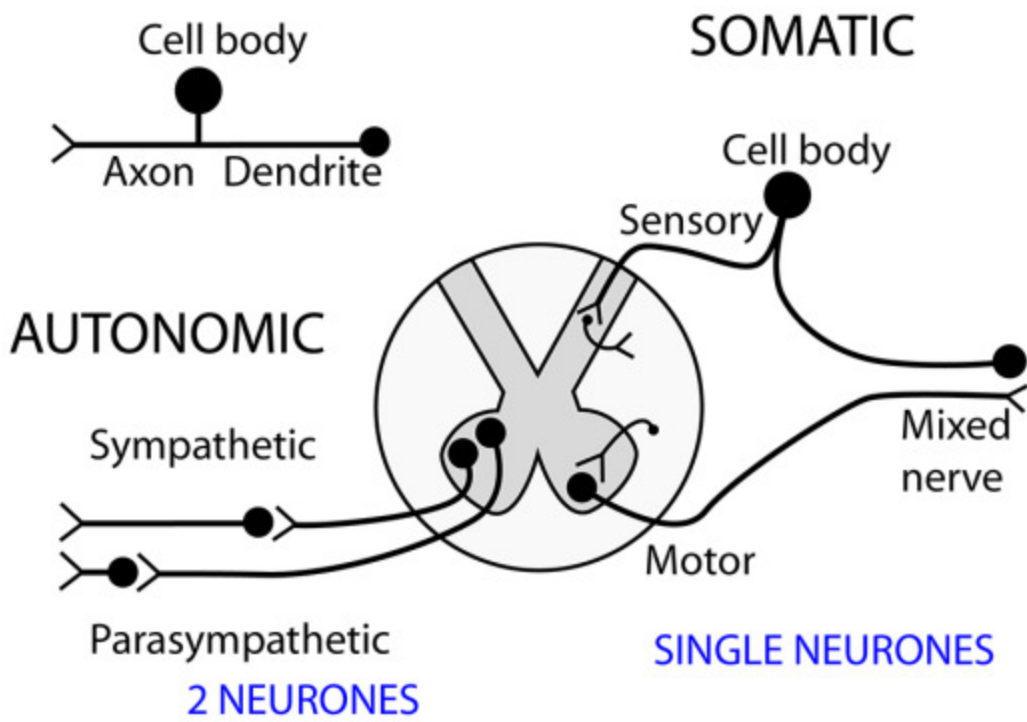
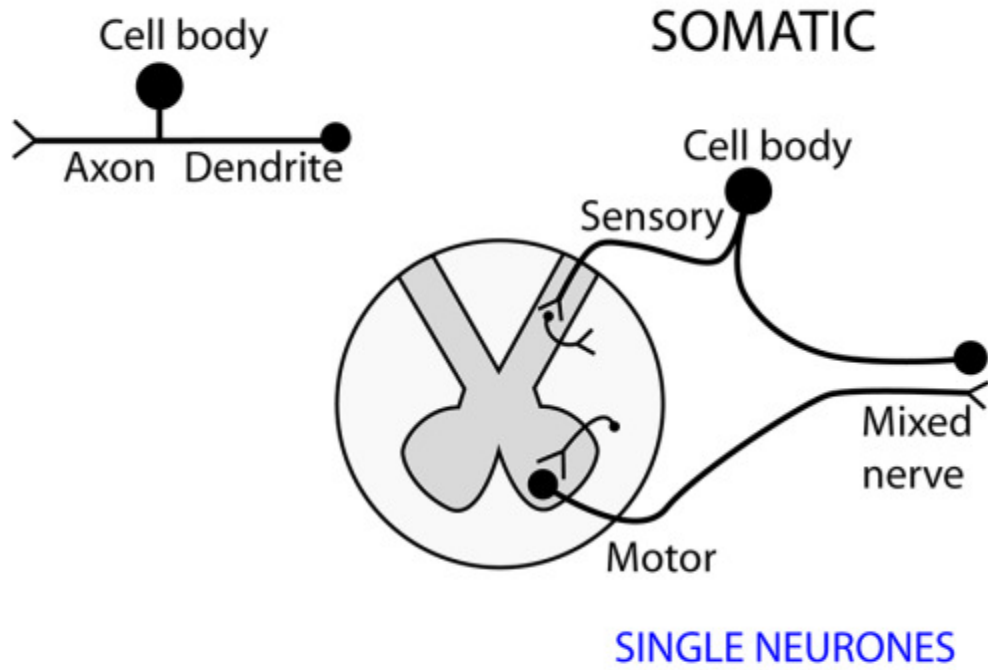
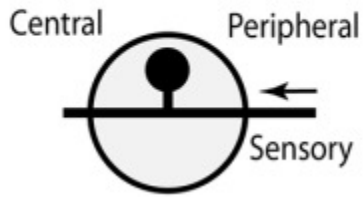


# COMPARISON OF SOMATIC & AUTONOMIC NEURONES





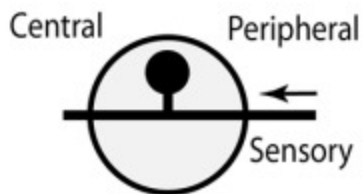
### 3 TYPES OF GANGLIA



**SENSORY GANGLION** has cell bodies only and NO synapses Examples:

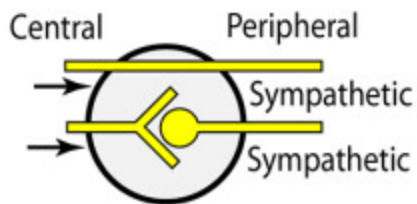
- Posterior (dorsal) root
- Trigeminal
- Glosso-pharyngeal
- Geniculate
- Vagal

### 3 TYPES OF GANGLIA



**SENSORY GANGLION** has cell bodies only and NO synapses Examples:

- Posterior (dorsal) root
- Trigeminal
- Glosso-pharyngeal
- Geniculate
- Vagal

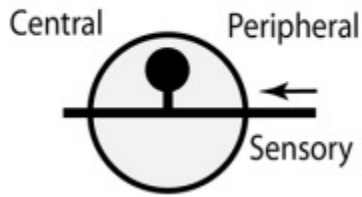


**SYMPATHETIC GANGLION** has either a synapse or a fibre passing through it to synapse later.

Examples:

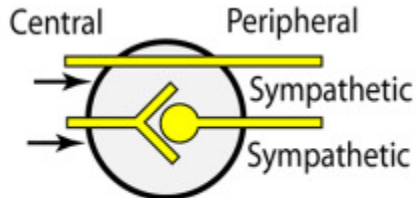
- Sympathetic chain
- Sympathetic peripheral ganglia (coeliac, renal, superior mesenteric)

### 3 TYPES OF GANGLIA



**SENSORY GANGLION** has cell bodies only and NO synapses Examples:

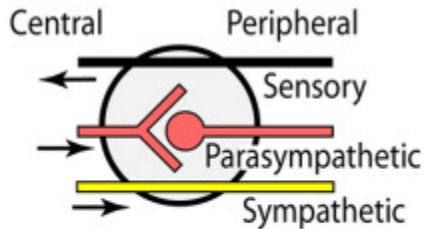
- Posterior (dorsal) root
- Trigeminal
- Glossopharyngeal
- Geniculate
- Vagal



**SYMPATHETIC GANGLION** has either a synapse or a fibre passing through it to synapse later.

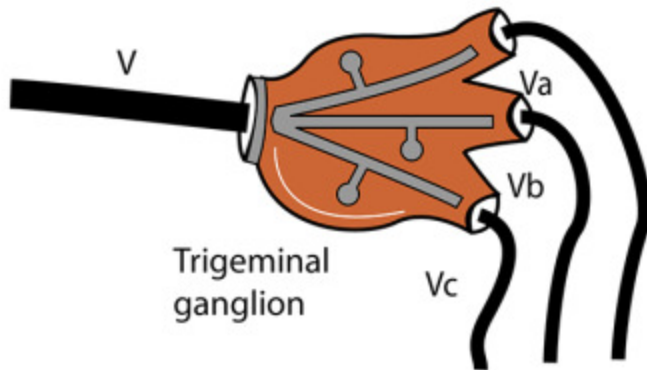
Examples:

- Sympathetic chain
- Sympathetic peripheral ganglia (coeliac, renal, superior mesenteric)

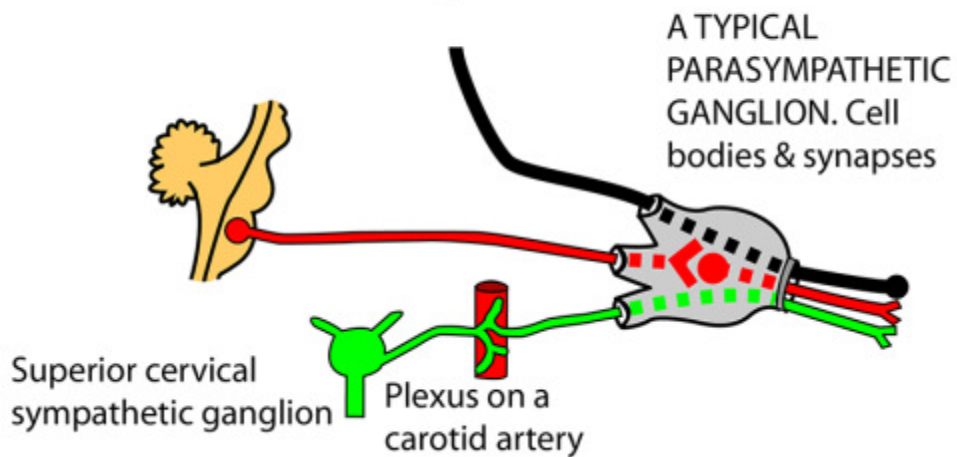
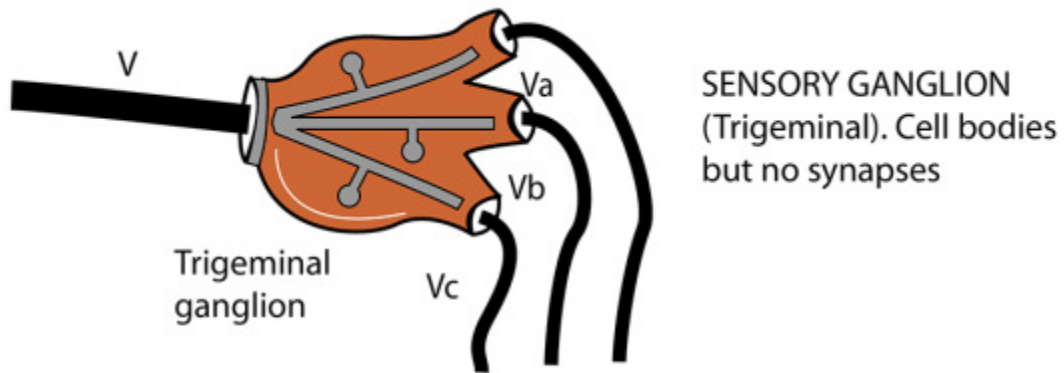


**PARASYMPATHETIC GANGLION** has parasympathetic nerves synapsing and both a somatic sensory and a sympathetic nerve passing through it. Examples:

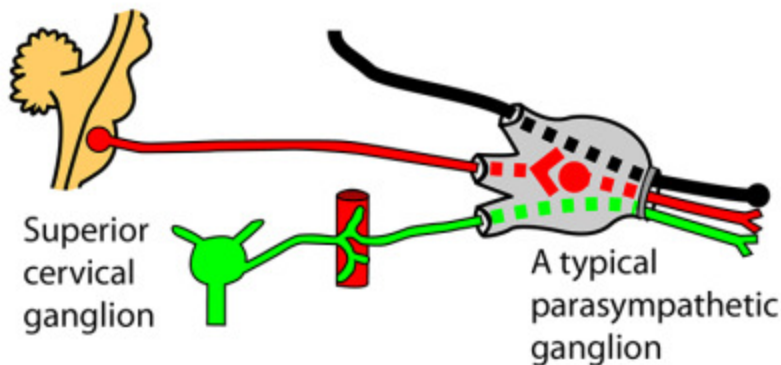
- Ciliary
- Ptergopalatine
- Submandibular
- Otic



**SENSORY GANGLION (Trigeminal).** Cell bodies but no synapses



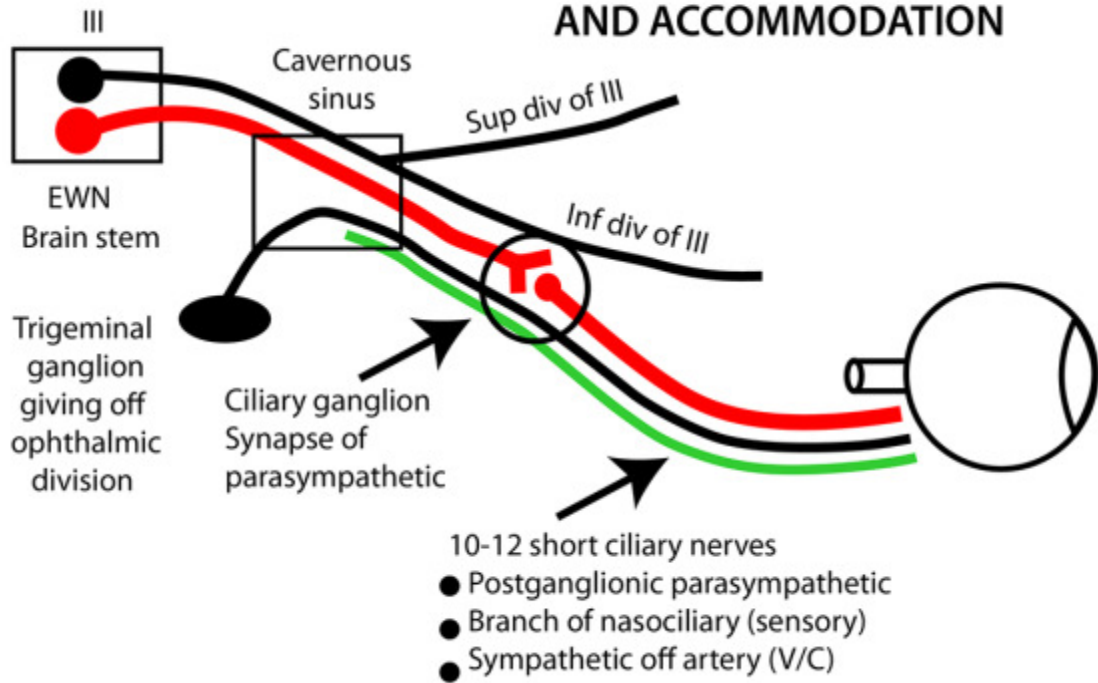
### SYMPATHETICS IN PARASYMPATHETIC GANGLIA



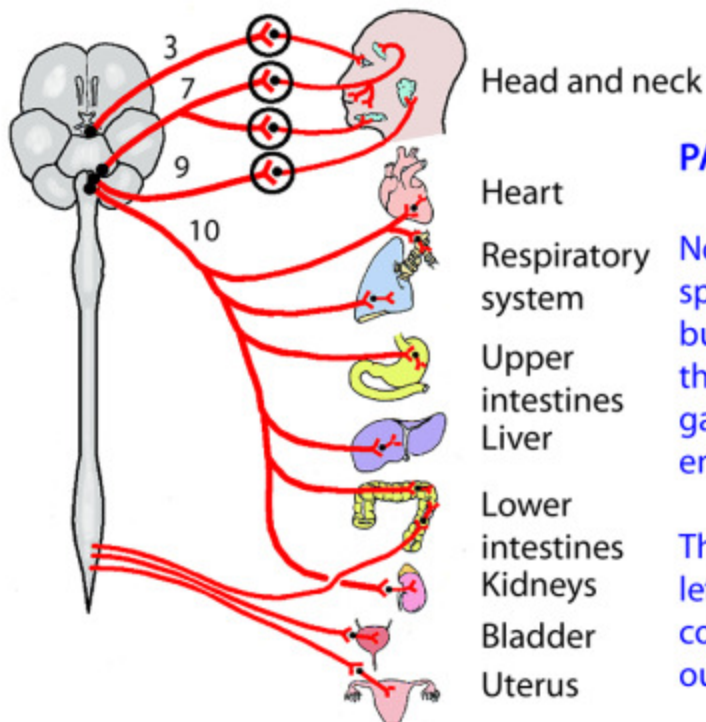
There are always sympathetic fibres passing through each of the parasympathetic ganglia. They arise from plexuses on branches of the external or internal carotid arteries.

They do not synapse in these parasympathetic ganglia as they have already synapsed in the superior cervical ganglion. They supply vasoconstriction to the end organs and NEVER have special functions such as pupillary dilatation

## PARASYMPATHETIC PATHWAY FOR PUPILLARY CONSTRICTION AND ACCOMMODATION



## PARASYMPATHETIC CRANIOSACRAL OUTFLOW



### PARASYMPATHETIC

Note that there are 4 specific ganglia in the head but in the rest of the body there are small peripheral ganglia on or near the end-organs.

The vagus reaches to the left side of the transverse colon and then the sacral outflow takes over



