

CNIII Oculomotor Nerve

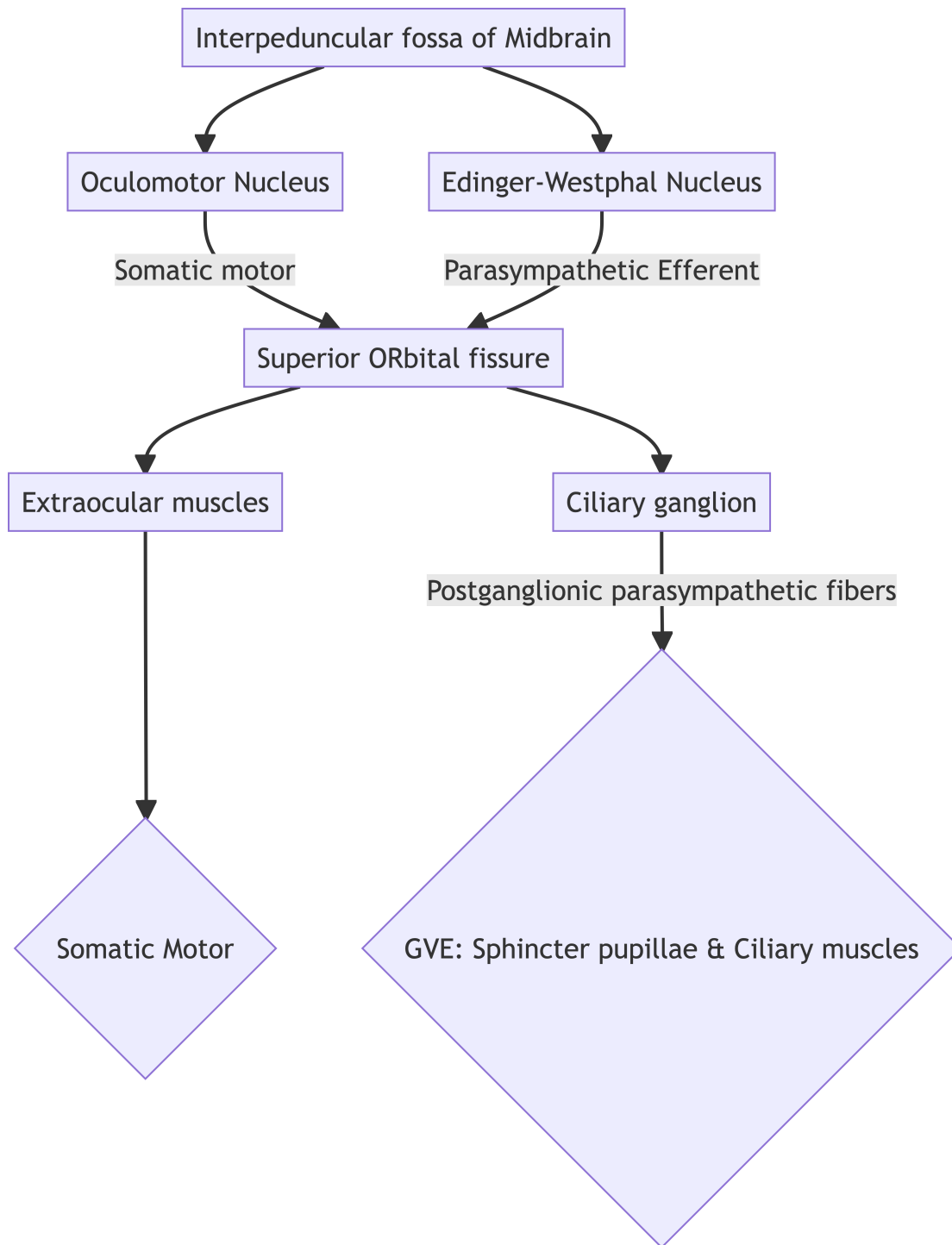
Nathaniel Yomogida, SPT

Chloë Kerstein, SPT

Table of contents

1 Overview	3
2 Pathway	3
3 Function	3
3.1 Somatic motor control of Extraocular muscles	3

3.2 Parasympathetic efferent to lens 3



1 Overview

- CNIII refers to nerve fibers containing somatic motor fibers running to extraocular muscles of the eye as well as parasympathetic efferent fibers running to the muscles in the lens.
- CNIII is myelinated by Schwann cells and is therefore considered part of the PNS.

2 Pathway

- CNIII travels with CN IV and VI through the cavernous sinus¹.
- Next, these three nerves leave the skull through the superior orbital fissure to synapse and innervate the extraocular muscles¹.
- CN III also carries parasympathetics to the pupillary constrictor and to the ciliary muscle of the lens¹.

3 Function

3.1 Somatic motor control of Extraocular muscles

- Superior Recti
- Medial Recti
- Inferior Recti
- Inferior Oblique

3.2 Parasympathetic efferent to lens

1. Blumenfeld H. *Neuroanatomy Through Clinical Cases*. 3rd ed. Oxford university press; 2022.

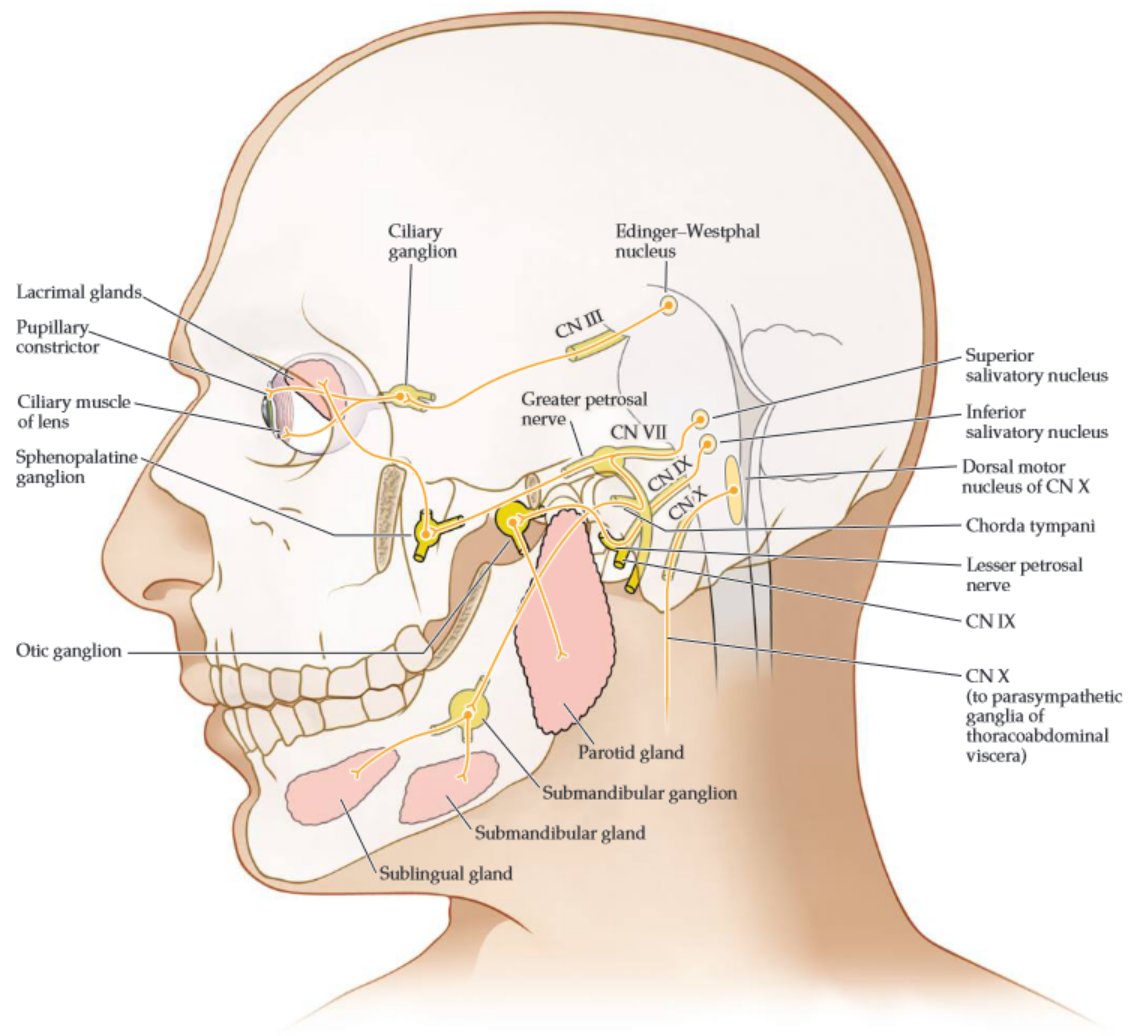


Figure 1: Cranial Nerve Sympathetic Pathways (from Blumenfeld Figure 12.6¹)