

# Pupils & Cranial Nerves

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## Objectives

1. Identify the anatomical pathways involved in the pupillary light reflex pathway.
2. Describe what an afferent pupillary defect is.
3. Recognize the roles of cranial nerves III, IV, and VI in eye movements.

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## Sympathetic

- Dilate or constrict?

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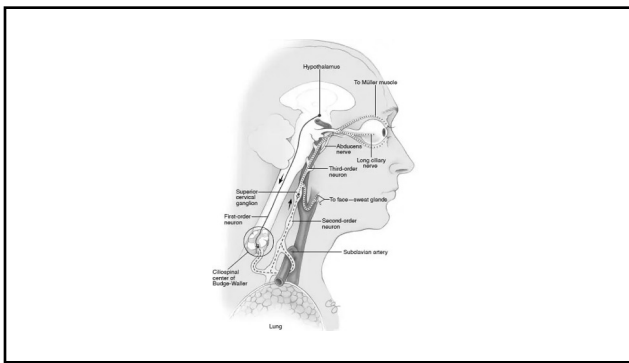
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**Parasympathetic**

- Dilate or constrict?

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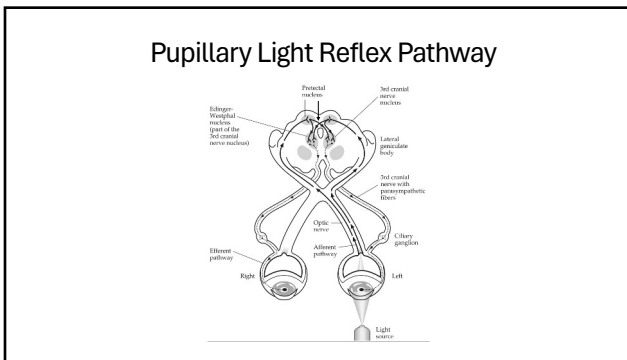
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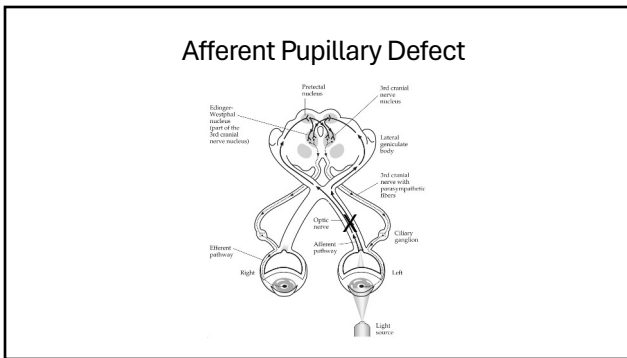
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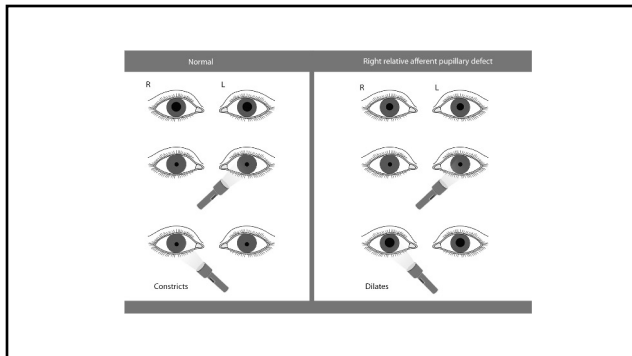
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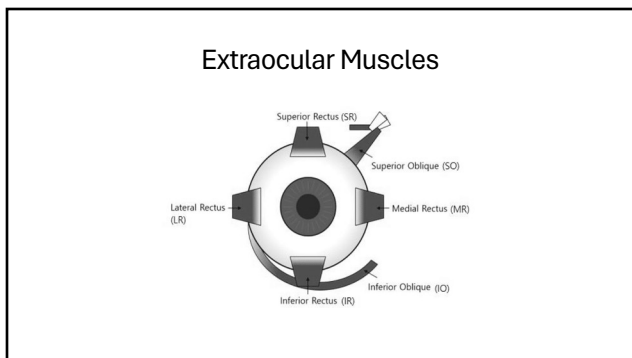
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**TABLE 101**

**Cranial Nerves**

Name	FUNCTIONS	
	Motor	Sensory
<b>I. Olfactory</b>		Smell
<b>II. Optic</b>		Sight
<b>III. Oculomotor</b>	Superior, medial, and inferior oblique muscles; inferior rectus and inferior oblique muscles; ciliary eye muscles	
<b>IV. Trochlear</b>	Superior oblique muscle	
<b>V. Trigeminal</b>	Muscles of mastication; teeth, lips, buccal, lower lip/mouth, face, skin, parotid and sublingual salivary glands, anterior ciliary muscle	
<b>VI. Abducens</b>	Lateral rectus muscle of the eyeball	
<b>VII. Facial</b>	Muscles of face, scalp, anterior 2/3 of ventral tongue; submandibular salivary gland, sublingual, sublingual salivary gland, sublingual, posterior ciliary muscle	Tongue's taste buds
<b>VIII. Vestibulocochlear</b>		Hearing
<b>IX. Glossopharyngeal</b>		Hearing
<b>X. Vagus</b>	Stapedius in semicircular canals	
<b>XI. Accessory</b>	Stylohyoid muscle, pharynx, parotid salivary gland, lower 1/3 of tongue	Taste buds
<b>XII. Hypoglossal</b>	Muscles of the soft palate, pharynx, larynx, trachea, esophagus, stomach, intestines, other abdominal viscera, and the heart	Hairt, lungs, trachea, pharynx, larynx, esophagus, and the gastrointestinal tract
	Trapezius and sternocleidomastoid muscle	
	Tongue muscles	

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Eye Movements and Cranial Nerves

**LR<sub>6</sub> SO<sub>4</sub> AO<sub>3</sub>**

Lateral rectus – VI  
 Superior oblique – IV  
 All others - III

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Thank you!

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