

CHARTS FOR VISUAL PATHWAYS

Visual Pathway	Cell Body/Nucleus	Tract
1° (retina)	Rod/cone	
2° (retina)	Bipolar cell	
3° (retina)	Ganglion cell	Optic nerve – optic chiasm – optic tract
4°	LGN	Optic radiations
termination	Visual cortex	

Pupillary Constriction	Cell Body/Nucleus	Tract
1° (retina)	Rod/cone	
2° (retina)	Bipolar cell	
3° (retina)	Ganglion cell	Optic nerve – optic chiasm – optic tract – brachium of superior colliculus
4°	Pretectal area	Note: crossing axons in posterior commissure
5°	Edinger Westfall nucleus	CN III
6°	Ciliary Ganglion	short ciliary nerves
Termination – pupillary sphincter		

Accommodation	Cell Body/Nucleus	Tract
1° (retina)	Rod/cone	
2° (retina)	Bipolar cell	
3° (retina)	Ganglion cell	Optic nerve – optic chiasm – optic tract
4°	LGN	Optic radiations
5°...	Visual cortex	Optic radiations to brachium of superior colliculus
6° (or more)	Supraoculomotor Nucleus (adjacent to pretecal area)	Note: crossing axons in posterior commissure
7°	Edinger Westfall nucleus	CN III
8°	Ciliary Ganglion	short ciliary nerves
Termination – pupillary sphincter and ciliary muscle		

Pupillary Dilation	Cell Body/Nucleus	Tract
1°	Hypothalamus	Hypothalamospinal tract
2°	Preganglionic sympathetic neurons in lateral horn of spinal cord	Sympathetic chain
3°	Superior cervical ganglion	Common carotid - internal carotid – long ciliary nerves
Termination – pupillary dilator		