



## Homonymous Hemianopia - Both Eyes Same Side

### Both Eyes showing Vision Loss on Same Side

Any type of intracranial lesion in the appropriate location can cause a homonymous hemianopia. However, vascular causes (cerebral infarction and intracranial hemorrhage) are the most frequent in adults, followed by brain tumors, trauma, surgery, infections and other CNS diseases.

## Dorsal Optic Radiation

### Radioactive Dorsal-fin

The dorsal optic radiations carry visual information about the inferior visual fields from the lateral geniculate nucleus to the primary visual cortex, located along the calcarine fissure. Because these nerve fibers run through the internal capsule, any damage to the internal capsule, such as a lacunar infarct, may lesion the dorsal optic radiations resulting in lower quadrantic visual loss. These patients are unable to see the contralateral inferior quadrant in both eyes. In other words, patients with a lesion in the region of the the right dorsal optic radiation will lose vision in the lower left quadrant in both eyes.

## Lower Quadrantic Vision Loss

### Eye showing Vision Loss in Lower Quadrant

Vision loss that involves only one-fourth of the visual field in both eyes. It is also commonly referred to as "pie on the floor" visual defect. It involves damage to the dorsal optic radiations, parietal lobe through trauma or a middle cerebral artery infarction.

## Meyer's Loop

### Mayor's Loop

Meyer's loop is the ventral part of the pathway that carries information to the visual cortex. It wraps around the inferior horn of the lateral ventricle. Lesion of the loop on one side leads to vision loss in the contralateral upper quarters of both eyes.

## Upper Quadrantic Vision Loss

### Eye showing Vision Loss in Upper Quadrant

Also commonly referred to "pie in the sky" visual defect involving one-fourth of the superior visual field. The temporal lobe houses Meyer's loop and lesions of the right loop leads to left upper quadrantic anopia. Traumatic injuries to the right temporal lobe are a common cause or a middle cerebral artery infarct.