

Primary Angle-Closure Glaucoma (PACG - Acute)

Primary angle-closure glaucoma (PACG) or acute glaucoma is less common than the chronic form - primary open-angle glaucoma (POAG). It is characterized by a sudden, rapid onset with eye pain and is considered a medical emergency. If treatment is not initiated immediately, total blindness can occur within hours of onset of symptoms.



PLAY PICMONIC

Mechanism

Rapid Increase in IOP

[Rapid-rabbit Up-arrow Eye-squeeze](#)

The rapid increase in intraocular pressure is due to a narrowed angle and forward displacement of the iris leading to a reduction in the outflow of aqueous humor. It may also occur in someone with prolonged pupil dilation.

Signs and Symptoms

Rapid Onset

[Rapid-rabbit On-switch](#)

Unlike POAG (open-angle glaucoma), PACG has a sudden and rapid onset.

Pain

[Pain-bolt](#)

Acute angle-closure glaucoma includes a sudden and extremely painful sensation in or around the eye, which radiates over the face causing headache and brow pain.

Blurred Vision

[Blurry Eye](#)

Blurred vision is a common symptom, as well as decreased light perception.

Halos Around Lights

[Halo on Lamp](#)

Patients often complain of seeing colored halos around lights.

Nausea and Vomiting

[Nausea and Vomiting](#)

Patients may experience nausea and vomiting.

IOP over 30 mm Hg

[Eye-squeezed by \(30\) Dirty-bum](#)

IOP readings in acute angle-closure glaucoma are typically over 30 mm Hg and may be as high as 50 mm Hg.

Considerations

Drug Therapy

[Med-bottle](#)

Drug therapy includes the use of miotics, prostaglandin agonists, IV mannitol, or glycerin liquid (Ophthalgan) in order to lower IOP.

Surgery

[Surgeon](#)

For long term treatment and to prevent recurrent episodes, a laser peripheral iridotomy or surgical iridectomy may be indicated. This opens a new channel in the iris to allow for aqueous humor to flow through. The procedure can also be performed in the other eye as a preventative measure.