

# The MERCK Manual

Of Diagnosis and Therapy

**NINETEENTH EDITION**

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block. It is done as soon as the cornea is clear and inflammation has subsided. In some cases the cornea clears within hours of lowering the IOP; in other cases, it can take 1 to 2 days. Because the chance of having an acute attack in the other eye is 80%, LPI is done on both eyes.

The risk of complications with LPI is extremely low compared with its benefits. Glare, which can be bothersome, may occur if the iridotomy is not placed superiorly enough for the upper lid to cover it.

**Chronic angle-closure glaucoma:** Patients with chronic, subacute, or intermittent angle-closure glaucoma should also have LPI. Additionally, patients with a narrow angle, even in the absence of symptoms, should undergo prompt LPI to prevent angle-closure glaucoma.

The drug and surgical treatments are the same as with open-angle glaucoma. Laser trabeculoplasty is relatively contraindicated if the angle is so narrow that additional PAS may form after the laser procedure.

## 66 Cataract

(For developmental or congenital cataracts, see p. 2920.)

**A cataract is a congenital or degenerative opacity of the lens. The main symptom is gradual, painless vision blurring. Diagnosis is by ophthalmoscopy and slit-lamp examination. Treatment is surgical removal and placement of an intraocular lens.**

Lens opacity can develop in several locations:

- Central lens nucleus (nuclear cataract)
- Beneath the posterior lens capsule (posterior subcapsular cataract)

### Etiology

Cataracts occur with aging. Other risk factors may include the following:

- Trauma (sometimes causing cataracts years later)
- Smoking
- Alcohol use
- Exposure to x-rays
- Heat from infrared exposure
- Systemic disease (eg, diabetes)
- Uveitis
- Systemic drugs (eg, corticosteroids)
- Undernutrition
- Dark eyes
- Possibly chronic ultraviolet exposure

Many people have no risk factors other than age. Some cataracts are congenital, associated with numerous syndromes and diseases.

### Symptoms and Signs

Cataracts generally develop slowly over years. Early symptoms may be loss of contrast, glare (halos and starbursts around lights), needing more light to see well, and problems

distinguishing dark blue from black. Painless blurring eventually occurs. The degree of blurring depends on the location and extent of the opacity. Double vision occurs rarely.

With a nuclear cataract (see Plate 4), distance vision worsens. Near vision may improve in the early stages because of changes in the refractive index of the lens; presbyopic patients may be temporarily able to read without glasses (second sight).

A posterior subcapsular cataract disproportionately affects vision because the opacity is located at the crossing point of incoming light rays. Such cataracts reduce visual acuity more when the pupil constricts (eg, in bright light, during reading). They are also the type most likely to cause loss of contrast as well as glare, especially from bright lights or from car headlights while driving at night.

Rarely, the cataract swells, occluding the trabecular drainage meshwork and causing secondary closed-angle glaucoma and pain.

### Diagnosis

- Ophthalmoscopy followed by slit-lamp examination

Diagnosis is best made with the pupil dilated. Well-developed cataracts appear as gray, white, or yellow-brown opacities in the lens. Examination of the red reflex through the dilated pupil with the ophthalmoscope held about 30 cm away usually discloses subtle opacities. Small cataracts stand out as dark defects in the red reflex. A large cataract may obliterate the red reflex. Slit-lamp examination provides more details about the character, location, and extent of the opacity.

### Treatment

- Surgical removal of the cataract
- Placement of an intraocular lens

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