

Cataract - the Essentials

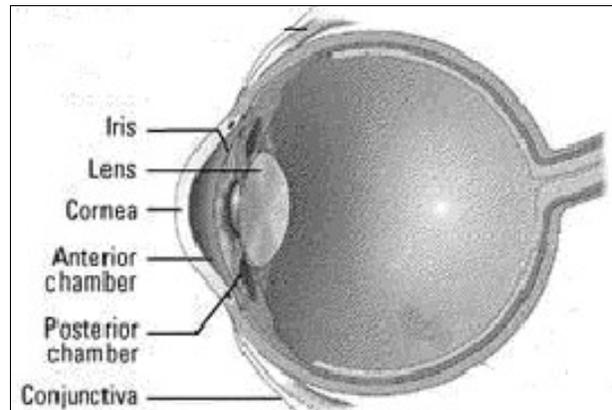
Definitions

Cataract - opacity of the crystalline lens

Visually Significant Cataract - a cataract that causes a noticeable decrease in vision

Functionally Significant Cataract - a visually significant cataract that interferes with a person's ability to perform necessary or desired tasks.

For many people a cataract become visually and functionally significant when vision is decreased to 20/40 or worse.



Epidemiology

Most common cause of decreased vision not correctable with glasses

Incidence - 50% people between 65 and 74, 70% in people 75 and over.

Etiology

Most common - age related changes in lens protein content (*senile cataract*)

Other - trauma, inflammation, metabolic defects (e.g. diabetes, steroid use), radiation, congenital

Cataract formation is accelerated by smoking and sun exposure.

Symptoms

Most common - change in refractive error, image blur, glare

Other - monocular diplopia, image distortion, altered color perception

Signs

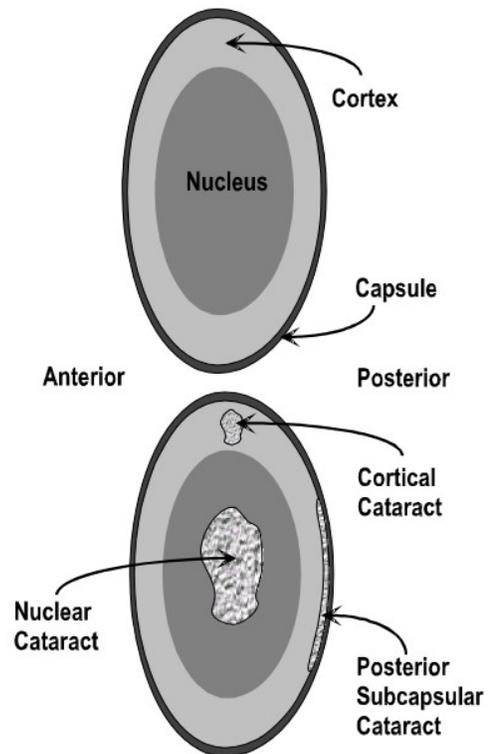
Decreased *red reflex* with direct ophthalmoscope.

When very advanced may appear as a white pupil or *leukocoria*

At slit lamp cataracts can be seen to be of three major types.

- 1) *nuclear* - yellowing/clouding of central lens
- 2) *cortical* - opacification of cortex the intermediate layer of the lens
- 3) *posterior subcapsular* - opacification of the cortex immediately adjacent to the posterior lens capsule

Each person's lens may have one or all of these types of opacities



Treatment

Senile cataract

There is no medical cure for cataract. When the cataract is visually and functionally significant the patient is offered the option of cataract surgery. Cataract surgery is almost always elective surgery as the cataract does not damage the eye. Rarely a cataract may become so advanced that it may cause glaucoma and iritis. No patient need be considered to old for cataract surgery. Cataract surgery is usually outpatient surgery done under local anesthesia with monitoring. Success rates for surgery exceed 95%.

Cataract extraction involves removal of the nucleus and cortex of the lens. The capsule is left behind to support a synthetic lens implant. *Phacoemulsification* surgery involves removal of lens material through a small incision after breaking it into pieces using ultrasound energy.

Extracapsular surgery involves removing the lens nucleus as a single piece through a larger incision. Extracapsular surgery is usually reserved today for advanced cataracts that cannot be safely phacoemulsified.

Postoperative care typically requires several weeks of topical antibiotic and antiinflammatory drops. Several weeks after surgery the patient is fit with new glasses. Most surgeons feel it is safest to wait several weeks between eyes when bilateral cataract surgery is to be performed.

Complications of surgery include *corneal decompensation, glaucoma, retinal swelling, retinal detachment, infection and bleeding.*

Congenital cataract

As with senile cataract, treatment for congenital cataract is surgical. If the cataract is felt to be visually significant removal at the earliest safe time is indicated. Delay in removal of a visually significant congenital cataract will result in *amblyopia* or “lazy eye”.

