

CATARACTS

- And how to get a satisfied patient

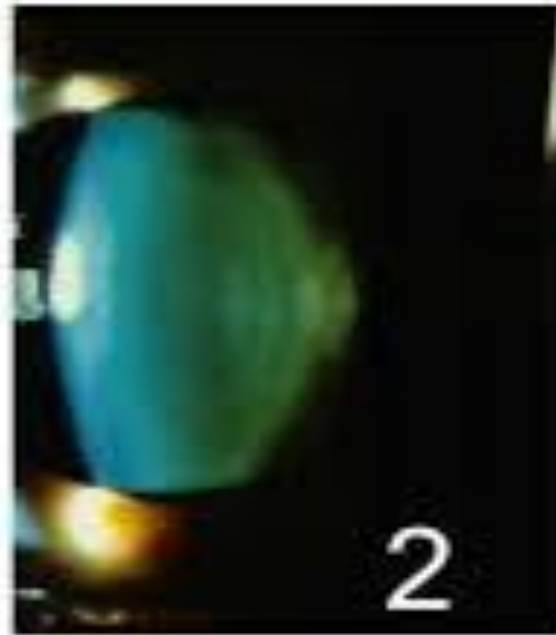
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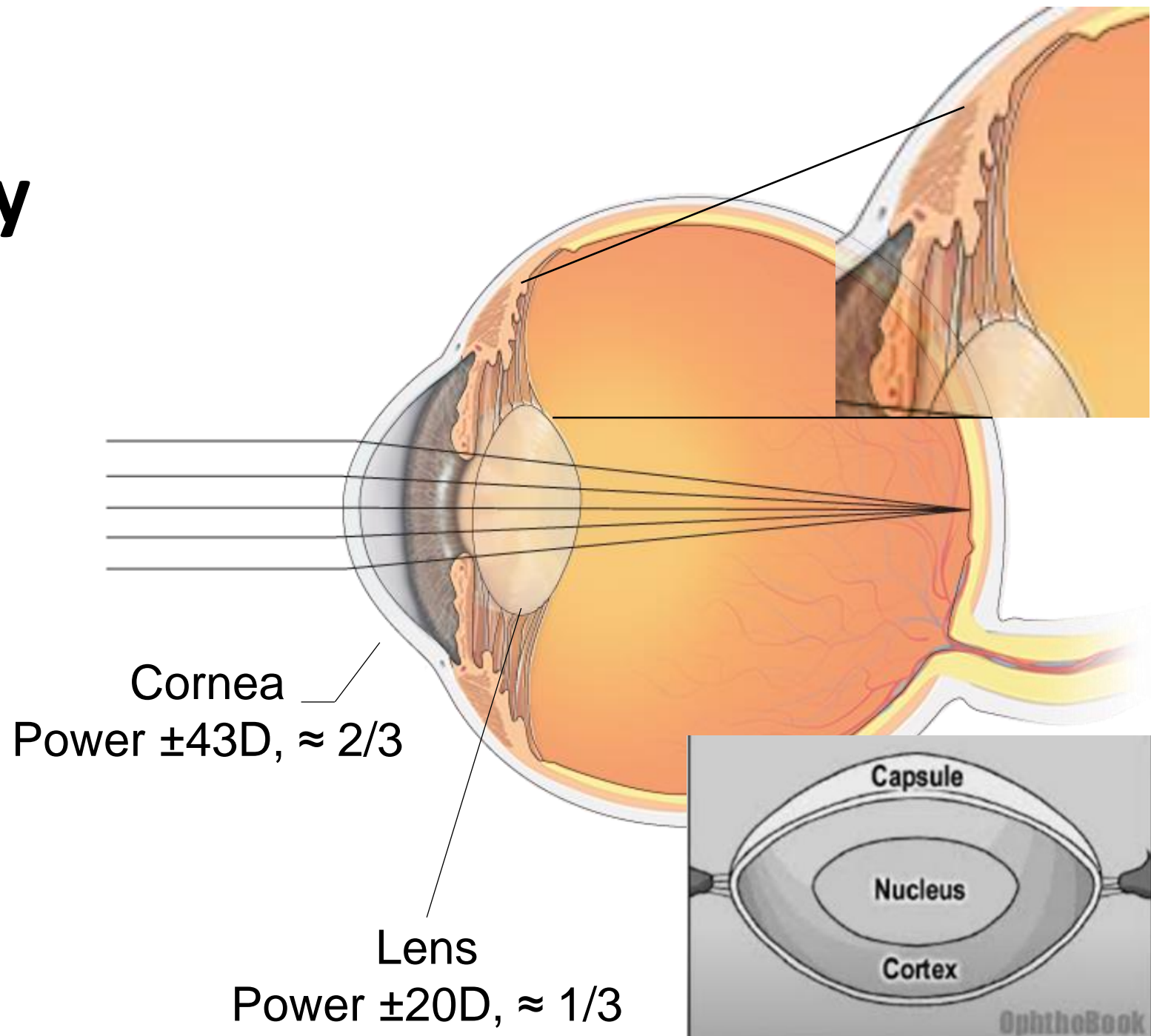
Introduction

- The lens undergoes physiologic changes throughout life
- Cataract: unclear lens that gives rise to visual impairment
- Most common cause of blindness in the world
- Most cost-effective surgery in the world



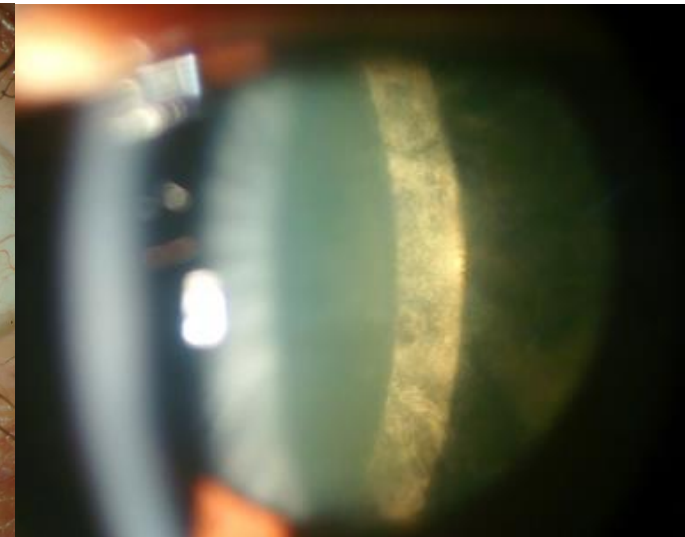
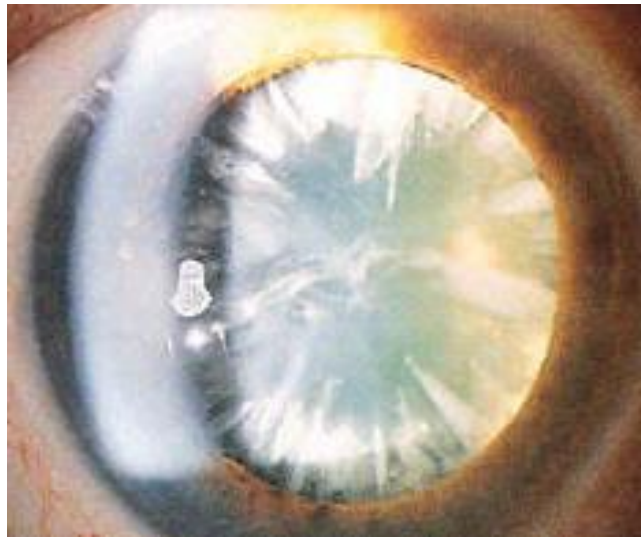
Lens physiology

- Zonules
- Lens capsule
- Lens nucleus
- Lens cortex
- Aims light on the macula



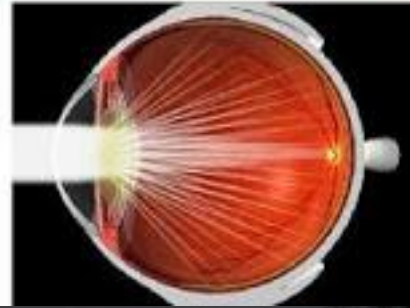
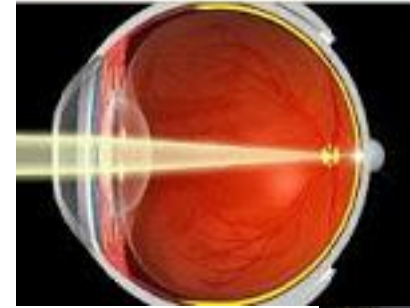
Different types of cataracts

- Cortical cataract 50%
- Nuclear cataract 30%
- Subcapsular cataract 20%



Symptoms

- Slow, gradual, clouded vision at a distance
- Glare, sensitivity to light
- Halos, starbursts around lights
- Developing myopia (nearsightedness)- change glasses often
- Monocular diplopia (double vision in one eye)
- Fading or yellowing of colors
- Painless



What causes a cataract

- Age
- UV-light
- Systemic and metabolic disease: Diabetes, atopic dermatitis
- Other eye diseases: uveitis, retinitis pigmentosa
- Side effects of medicines: cortisone
- Congenital: chromosomal aberrations, intrauterine infections, idiopathic
- Hereditary
- Smoking
- Trauma/ eye surgery
- Radiation

How to get a satisfied patient



Expectations, expectations, expectations!

How to get a satisfied patient

- Things to consider:
- Does the patient want to undergo surgery?
- What is the goal of surgery: increase vision, reduce pressure, improve insight
- Exceptions when the patient is "talked into" undergoing surgery: swelling cataract, pressure reducing surgery, improve insight
- Are there any other reasons for visual decrease

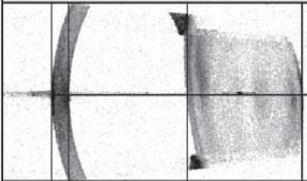
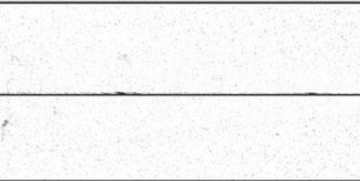

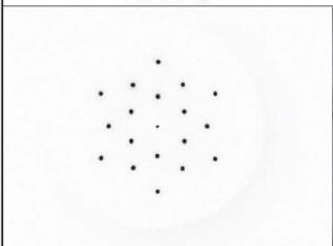
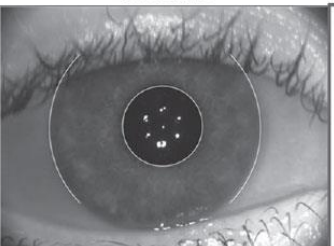
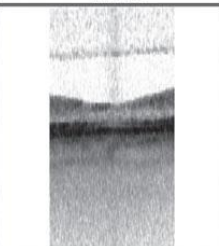
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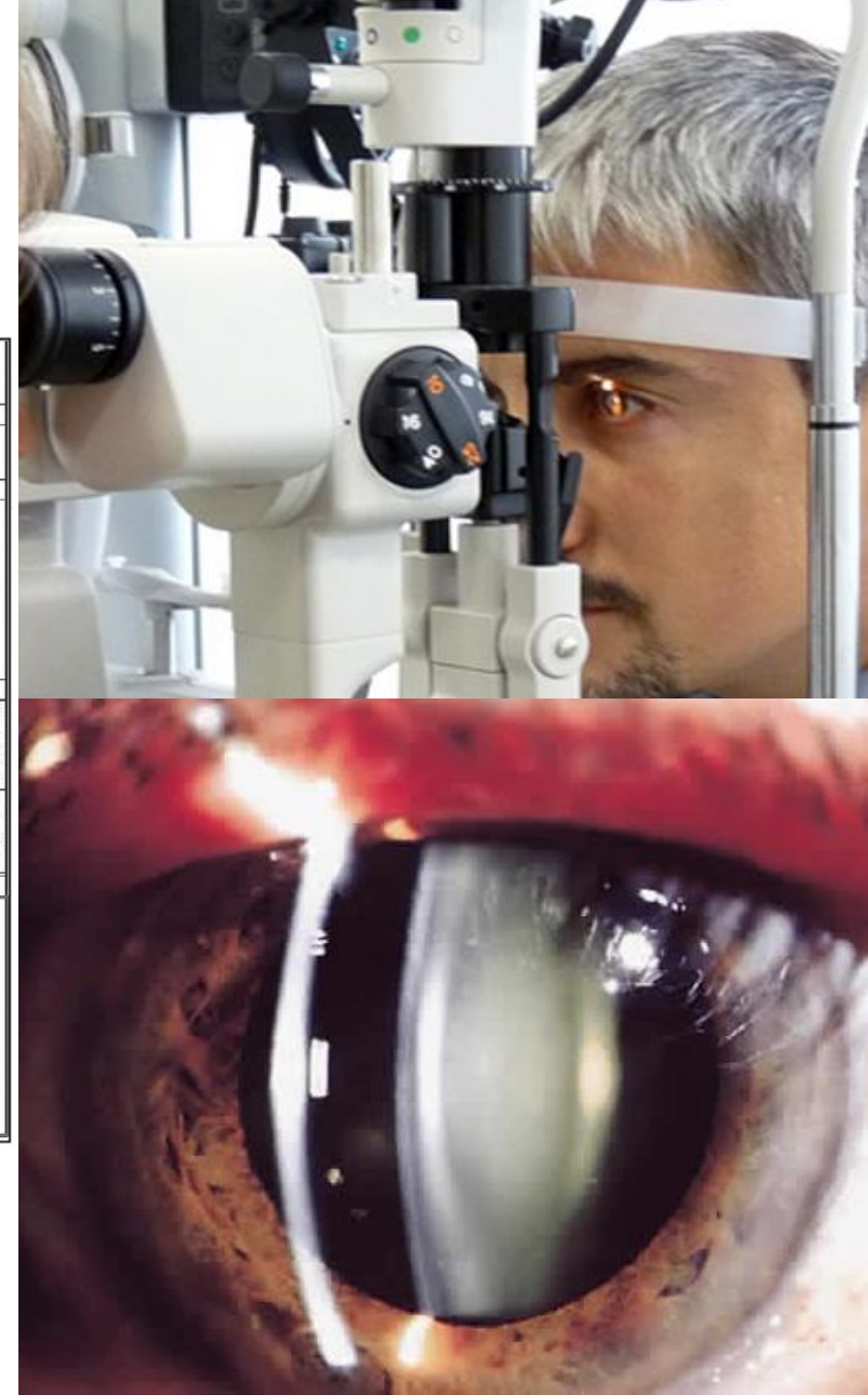
Patient history

- Describe visual problems
- Amblyopia
- Other eye diseases? (glaucoma, retinal disease, cystic macular oedema)
- Trauma?
- Other eye surgery? (refractive surgery, retinal surgery)
- When did the patient receive their first glasses
 - small child <5 years hyperopia
 - 5-16 years myopia
 - 16-20 years astigmatism
 - 50 years and above emmetropia
- Other systemic disease (diabetes, treatment with high levels of cortisone)
- Medication to consider: prostate medication, cordarone
- Can the patient cooperate? (need for anasthesia, help with post op care)

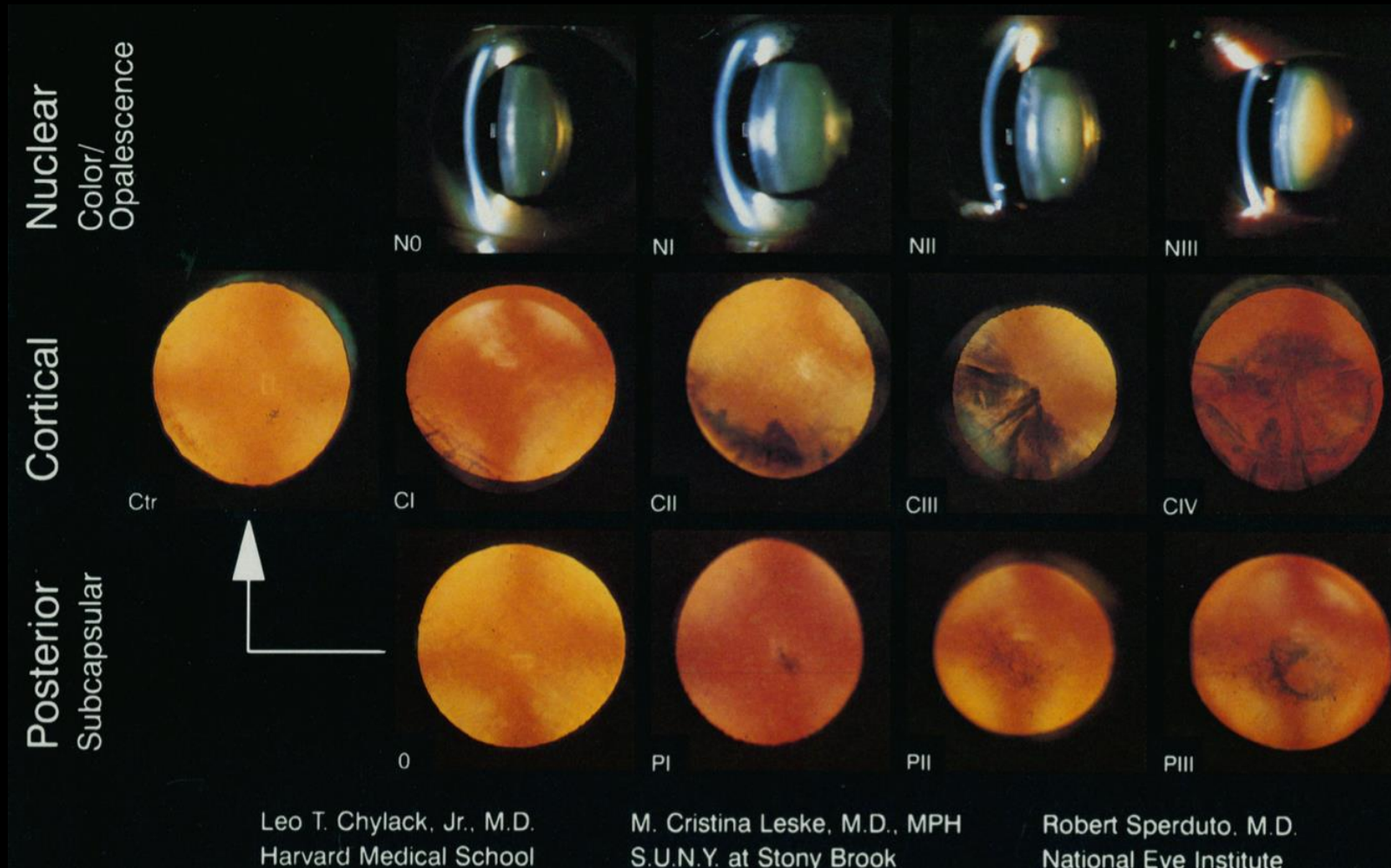
Diagnosis

- Visual acuity with and without glasses
- Glass prescription
- Refraction
- Slit-lamp biomicroscopy
- Biometry
- A-scan ultrasound
- Corneal imaging

OD		Analyze	
right			
Eye status			
LS: Phakic	VS: Vitreous body	LVC: Untreated	
Ref: ---	VA: ---		
Biometric values			
AL: 24.87 mm	SD: 8 μ m	WTW: 12.5 mm	lx: +0.5 mm ly: +0.1 mm
CCT: 534 μ m	SD: 4 μ m	P: 4.7 mm	CW-Chord: 0.1 mm @ 129°
ACD: 4.45 mm	SD: 14 μ m		
LT: 3.80 mm	SD: 15 μ m		
SE: 43.27 D	SD: 0.02 D	TSE: 43.43 D	SD: 0.01 D
K1: 42.83 D @ 179°	SD: 0.03 D	TK1: 43.09 D @ 173°	SD: 0.02 D
K2: 43.73 D @ 89°	SD: 0.02 D	TK2: 43.78 D @ 83°	SD: 0.03 D
Δ K: +0.90 D @ 89°		Δ TK: +0.69 D @ 83°	
B scan			
			
Keratometry	White-to-white	Fixation	
			



Grading of cataracts



Choosing the right IOL (intraocular lens)

- Monofocal
- Monofocal with monovision
- Toric
- Extended depth-of-focus (EDOF)
- Multifocal/trifocal
- Phacic

Is the patient good for surgery

1. Is there a visually significant lens opacity, or other reasons to do surgery
2. Does the lens opacity account for the patients level of vision
3. Is the potential improvement enough to warrant the risks of surgery
4. Can the patient tolerate the surgery and be able to follow postoperative instructions and follow up care

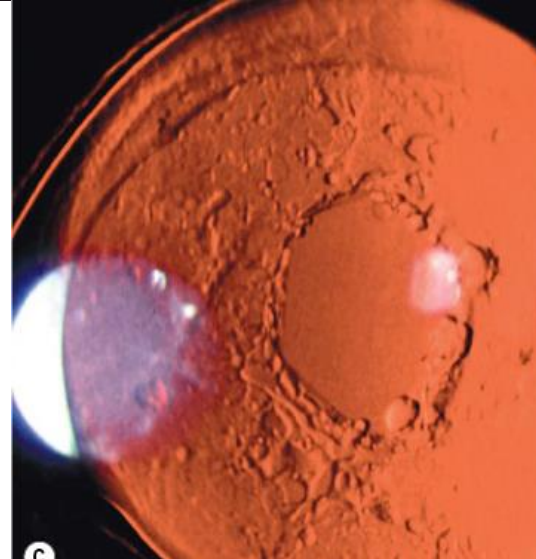
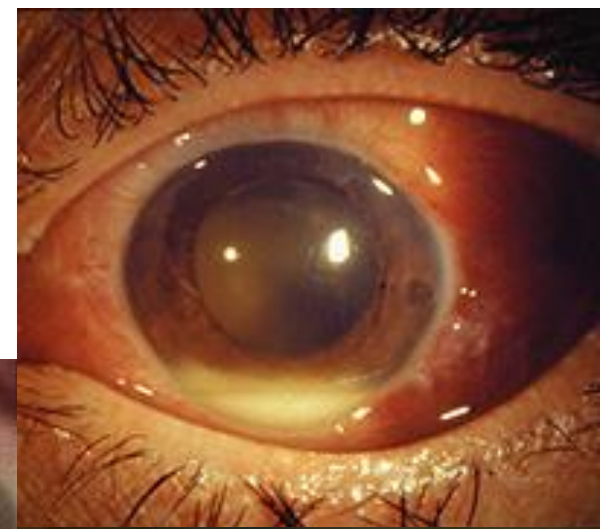
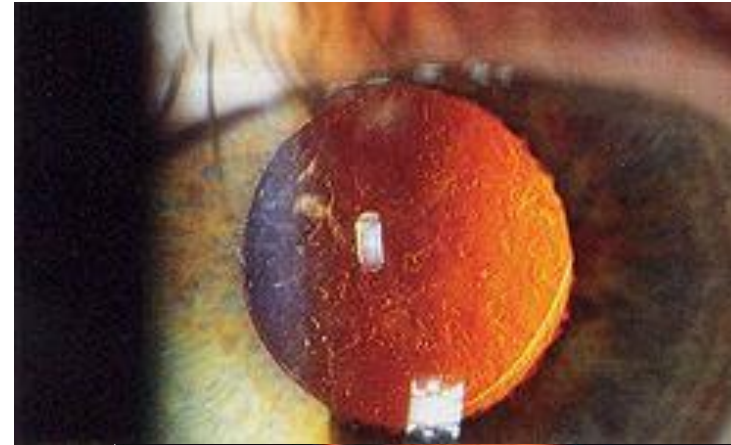
Cataract surgery

- Film <https://www.youtube.com/watch?v=PLSKmeAV43M>

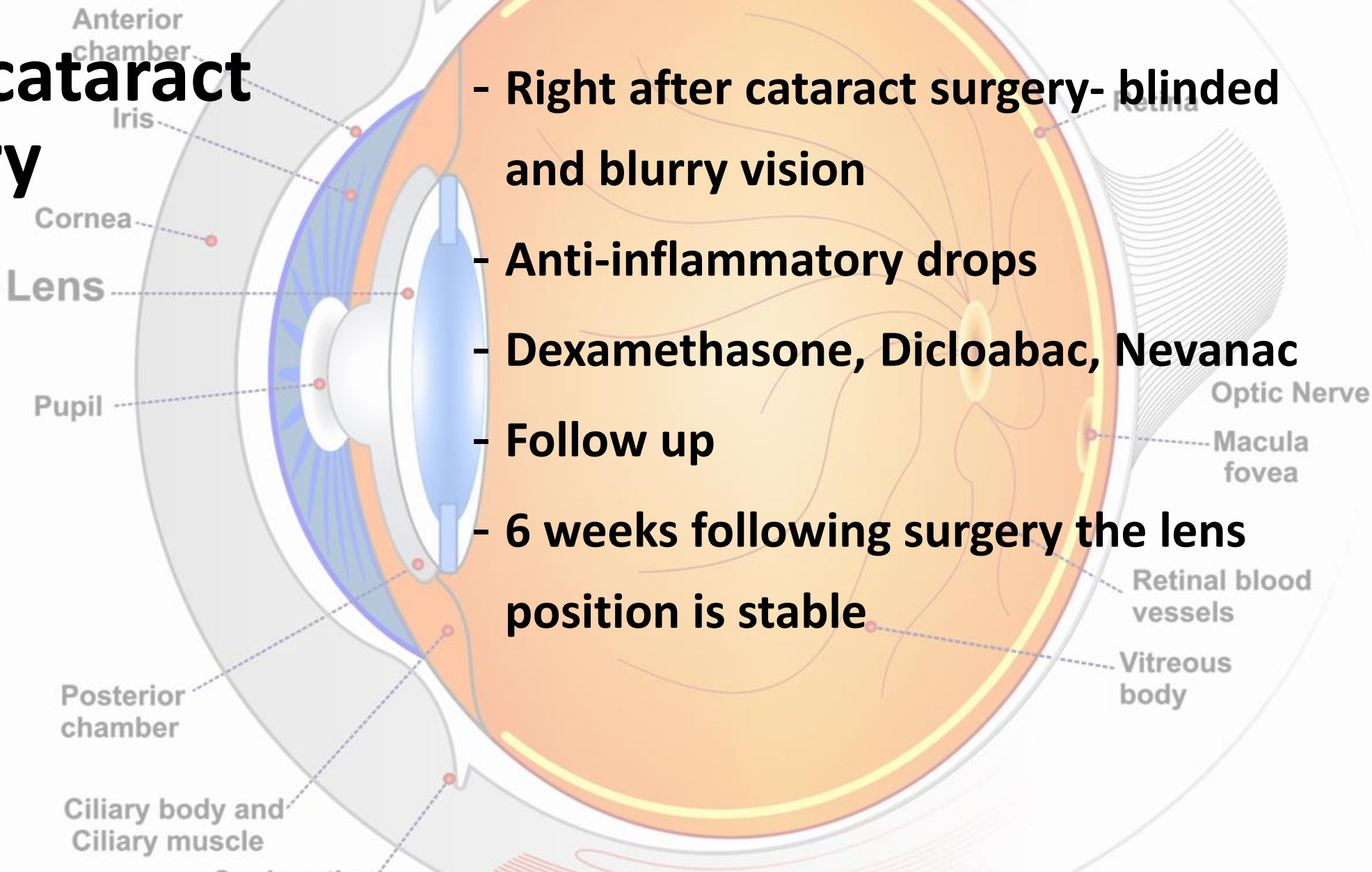
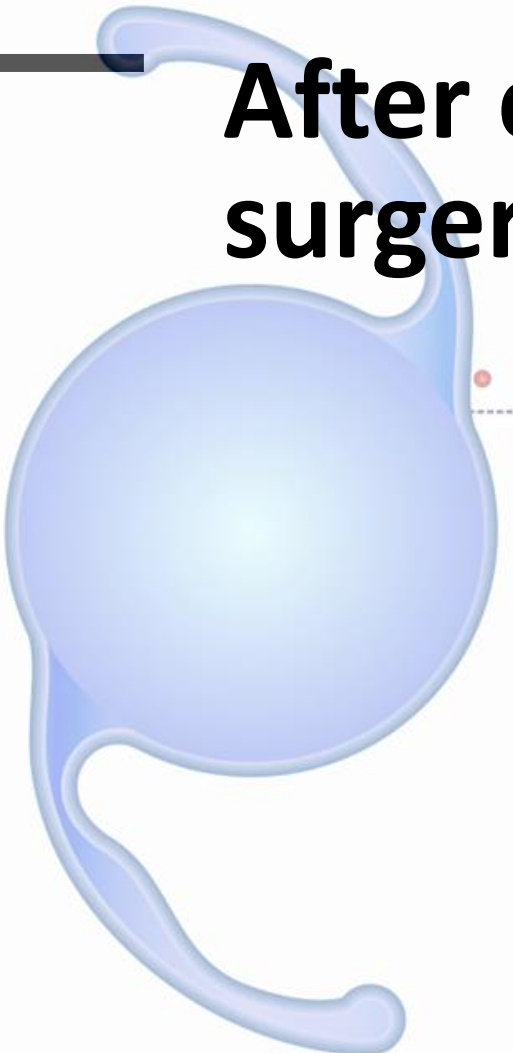


Complications of surgery

- Endophthalmitis
- Corneal oedema
- Postoperative inflammation
- Postoperative intraocular increased pressure
- Cystic macular oedema
- Posterior capsular opacities (PCO)



After cataract surgery



- Right after cataract surgery- blinded and blurry vision
- Anti-inflammatory drops
- Dexamethasone, Dicloabac, Nevanac
- Follow up
- 6 weeks following surgery the lens position is stable

THANK YOU

