

Adult Nursing II

Cataract

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Cataract: Description

- A cataract is a lens opacity or cloudiness
- Cataract is a leading cause of blindness worldwide (WHO)

Cataract: Etiology/ Risk Factors

- Ageing
- An associated eye condition (retinal detachment, uveitis, herpes)
- Toxins: corticosteroids, metals, tobacco
- Malnutrition: obesity, poor nutrition
- Physical: trauma, chronic dehydration
- Systemic disorders: Downs syndrome, DM, renal, musculoskeletal, lipid disorders

Cataract: Pathophysiology

- May develop in one or both eyes
- Classification according to location in lens:
 - Nuclear
 - Cortical
 - Posterior sub-capsular
- Ageing may cause clumping or breakdown of lens protein (yellow pigmentation), ↓ O₂ uptake, ↑ sodium and calcium

Cataract: Classification

- **Nuclear:** associated with ↑ myopia
- **Cortical:** Anterior, posterior or equatorial cortex of lens
- Less effect on vision but vision worse in bright sunlight (also areas of high sunlight exposure ↑ prevalence)
- **Posterior sub-capsular:** younger people, corticosteroids, trauma, inflammation. Near vision ↓; sensitive to glare

Cataract: Clinical Manifestations

- Painless, blurred vision
- Reduced visual acuity
- Reduced light transmission
- Sensitivity to glare
- Colour shift
- Myopia (short-sightedness)
- Astigmatism
- Diplopia

Cataract: Diagnosis

- History and clinical picture
 - Snellen visual acuity test (visual acuity proportional to lens density)
 - Ophthalmoscopy
 - Slit lamp
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- Above tests establish degree of cataract formation

Cataract: Management

- No medical treatment
- Surgery if severe visual problems
- Most common surgery is extra-capsular cataract extraction with intraocular lens implant (IOL) (posterior chamber lens):
- Portion of anterior capsule removed to allow extraction of lens nucleus and cortex
- Posterior capsule and zonal support left intact

Post-Operative Eye Drops/ Ointment

- Antibiotics
- Anti-inflammatory
- Corticosteroids

Cataract Surgery: Complications

- Haemorrhage (suprachoroidal: profuse)
- Rupture of posterior capsule
- Infection: acute and persistent low-grade inflammation/ granuloma
- Suture-related problems
- Malposition of IOL (implant)
- Opacification of posterior capsule
- Risk of retinal detachment

Cataract: Nursing Considerations

- Monitor degree of visual impairment
- Lifestyle aids if necessary
- Emotional/ psychological support
- Patient education pre-surgery:
- Performed under local anaesthetic
- Anticoagulants with-held
- Mydriatic eye-drops dilate pupil to prepare for surgery

Cataract:

Nursing Considerations (cont)

- Post-surgery:
- Verbal and written instructions on eye protection (ensure patient understands)
- Eye covered with sterile pad for 24 hours until 1st dressing by surgeon (avoid sleeping on affected side)
- Dark glasses by day and shield cover at night to prevent self-damage
- Instructions to family about eye-drops. Arrange district nurse if no carer.

Cataract Surgery: Follow-up Instructions

- Always wear dark glasses/ eye shield as instructed
- Wash hands before touching eye/ instilling drops
- Clean eye with clean tissue: wipe closed eye once from inner to outer canthus
- Avoid stooping/ climbing stairs/ lifting until instructed
- Assistance and caution showering