

*Ophthalmology*  
*Cataract Surgery Complications*  
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*Fifth grade*

As with any surgical procedure there are risks associated with operation and the post-operative state. Listed below are general factors that increase the risk of complications with cataract surgery.

## **Risk Factors**

### *Risk factors associated with worse visual outcomes*

*Age-related macular degeneration*

*Diabetic retinopathy*

*Corneal opacity/pathology*

*Older age*

*Previous vitrectomy*

*Previous retinal detachment*

*Alpha blockade*

Intraoperative complications

### *immediate complications*

are a result of having the surgical procedure. These include discomfort, bruising and swelling of the eyelid, increased intraocular pressure, and allergic reaction to the steroid or antibiotic drop. These complications are monitored over time following surgery. If there is progression to pain, decrease in vision, or any discharge from the eye, patients are advised to seek medical attention.

### *A long-term consequence of cataract surgery*

is **posterior capsular opacification (PCO)**. PCO is the most common complication of cataract surgery. PCO can begin to form at any point following cataract surgery. Modern cataract surgery creates a capsular bag that contains part of the anterior, the entire posterior capsule, and the implanted, intra ocular lens. In the remaining anterior capsule, epithelial cells remain despite the surgical trauma. These epithelial cells will begin to settle on the anterior capsule and colonize the posterior capsule. The cells will continue to divide and begin to alter the lens matrix and therefore the refraction of the lens. PCO can successfully be treated with YAG laser capsulotomy, which will provide almost immediate improvement in vision.

### **Posterior Capsule Rupture/Vitreous loss**

posterior capsule tears may occur at any point during the operation performed. Loss of the vitreous due to capsular rupture can lead to severe visual disability and other complications previously mentioned such as retinal detachment.

### Cystoid Macular Edema

CME is the most frequent complication after an uncomplicated cataract surgery. Its peak incidence is about 6 to 8 weeks post-operatively.

### Endophthalmitis

Endophthalmitis is a serious complication of cataract surgery involving microorganisms that gain entry into the eye. Risk factors for the development of endophthalmitis include rupture of the posterior capsule or the need for anterior vitrectomy during the procedure, age greater than 85 years, and male sex. Higher rates of endophthalmitis were found in patients undergoing intra capsular cataract extraction compared to extra capsular cataract extraction. Staphylococcus epidermidis is the most common infectious organism since it is native to the eyelid, skin, and conjunctiva and can seed the eye during the procedure.

### Vitreous/Supra choroidal Hemorrhage

Hemorrhage is a sight-threatening complication that is often associated with incisional intra ocular surgery. Risk factors determined for hemorrhage include myopia, glaucoma, diabetes, atherosclerotic vascular disease, and hypertension.

### Retinal Tears/Detachment

Retinal detachment is considered a delayed complication of cataract surgery. Those with highly myopic eyes or a history of retinopathy of premature and develop early cataracts are at an increased risk of retinal detachment following surgery

### Lens Dislocation

. Inadequate capsular support is the main cause of lens dislocation and typically occurs early in the postoperative period. However, late, "in-the-bag" dislocations can occur from progressive zonular dehiscence many months after uncomplicated surgery. Management involves IOL repositioning with or without scleral fixation sutures, or replacement with an anterior chamber IOL.