FIVE THINGS TO KNOW ABOUT ...

Cataract surgery

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Cataract surgery is one of the most common surgical procedures performed in Canada and worldwide

More than 9.5 million cataract surgeries are performed worldwide each year.¹ The number of procedures has more than doubled between 1992 and 2004 in the province of Ontario.² Through a small incision (< 3.0 mm), a phacoemulsification probe that oscillates at ultrasonic speeds breaks up and removes the opaque cataract lens, and a permanent artificial lens is inserted into the original capsule that held the cataract.

1 Patients require glasses for near vision after standard cataract surgery

Traditional artificial intraocular lenses, now usually made of acrylic polymers, cannot change shape to allow for clear vision at different distances like a young human lens can.

2 One way to eliminate the need for glasses is to use multifocal intraocular lenses

Multifocal intraocular lenses simultaneously focus images of targets located at different distances from the eye, allowing the brain to choose the best focused image from each eye. Although patients are generally satisfied with these lenses, some may be intolerant of the haloes, glare and reduced contrast sensitivity associated with them.⁵

3 Serious postoperative complications are uncommon

Serious complications from cataract surgery include retinal detachment (0.8%) and endophthalmitis (0.1%) (Figure 1).^{3,4} Posterior capsular opacification, a more common postoperative condition (4.2% within 90 days), results from the proliferation and migration of retained lens epithelial cells across the posterior capsule and can be easily treated with a laser to create a clear aperture in the visual axis.³

Figure 1: Injection of prophylactic antibiotic to reduce the risk of postoperative infection and to inflate the eye to a normal intraocular pressure. The artificial intraocular lens is seen beneath the surgical instrument.

4 Another way to eliminate the need for glasses is monovision, whereby the power of the intraocular lens is chosen to enable midrange or near vision in one eye and distance vision in the other eye

After a period of adaptation, which can take several weeks, the brain learns to select the clearest central image from one eye at a particular distance and suppress the image from the other eye. Because there may be some loss of three-dimensional stereo vision with this approach, it may not be suitable for all patients.⁶

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