

GUIDELINES & PROTOCOLS

ADVISORY COMMITTEE

Cataract – Treatment of Adults

Effective Date: September 1, 2005

Scope

This guideline provides recommendations for the management of cataracts in adults (age 19 and older). The goal is to:

- a) improve visual function
- b) improve independence and quality of life
- c) resolve medical disease induced by cataracts

RECOMMENDATION 1:

Non-Surgical Management

During early cataract development, visual improvement may be achieved through a number of means including:

- changes in spectacle lens prescription
- use of strong bifocals
- magnification or other visual aids
- appropriate illumination

Pupillary dilatation has a limited role in the management of posterior subcapsular cataracts.

RECOMMENDATION 2:

Surgical Management

The presence of a cataract does not itself indicate a need for surgery. Cataract surgery may be indicated when the cataract reduces visual function to a level that interferes with everyday activities of the patient and the patient desires surgical intervention to improve vision.

Glare testing and potential acuity testing can be useful in certain cases in the decision to recommend or not recommend cataract surgery.

The following specific indications for cataract surgery are suggested:

- a) *Visual disability and Snellen Acuity of 20/50 or worse*

The visual impairment produced by the cataract is responsible for the patient's disability in carrying out needed or desired activities (driving, reading, occupational needs) and the best correctable visual acuity in the affected eye is 20/50 or worse.

b) Visual disability and Snellen Acuity of 20/40 or better

The visual impairment produced by the cataract is responsible for the patient's disability in carrying out needed or desired activities (driving, reading, occupational needs), as documented by any of the following reasons:

- visual disability increases due to glare or dim illumination
- patient complains of monocular diplopia or polyopia
- visual disparity exists between the two eyes

and the best correctable visual acuity in the affected eye is 20/40 or better.

c) Other indications for cataract removal

- Lens-induced disease: phacomorphic glaucoma, phacolytic glaucoma, and other lens-induced disease may require cataract surgery and the need for extraction may be urgent.
- Concomitant ocular disease that requires clear media: cataract extraction may be required to adequately diagnose other ocular conditions such as diabetic retinopathy.

d) Visual ability in patients legally blind in one eye

The indications for surgery in patients with cataract in one eye who are legally blind in the other eye are the same as for other patients, except that the risk of total blindness must be considered and emphasized.

RECOMMENDATION 3: Contraindications for Surgery

Surgery should not be performed solely to improve vision if:

- a) the patient does not desire surgery
- b) glasses or other visual aids provide functional vision satisfactory to the patient
- c) the patient's quality of life is not compromised
- d) the patient is medically unfit
- e) the patient has concomitant disease where functional improvement is unlikely

RECOMMENDATION 4: Second Eye Surgery

Although the risks of loss of an eye or blindness in cataract surgery are very small, only in very exceptional circumstances where there are documented medical reasons should surgery be done on both eyes at the same time.

In individuals who are pseudophakic in one eye and require cataract surgery at a later date, an interval of at least one week should occur to assess the benefit of the first surgery before the second eye is done (endophthalmitis may not be evident until 7 days after surgery).

Evidence

The Cataract Guideline Working Group of the Guidelines and Protocols Advisory Committee (GPAC) reviewed the guideline Treatment of Cataract in Adults, developed in 1996 by the British Columbia Council on Clinical Practice Guidelines. The Working Group was made up of practising physicians including cataract experts, an endocrinologist/internist, general practitioners, and a Ministry of Health medical consultant.

The Council's 1996 guideline was adapted from the work of the College of Physicians and Surgeons of B.C., which was based on the Agency for Health Care Policy and Research (AHCPR) guideline of 1993. The AHCPR stated that there was a lack of literature demonstrating precise indications for surgery and recommended adoption of the American Academy of Ophthalmology's (AAO) 1989 and 1991 Preferred Practice Patterns (PPP), which, the AHCPR stated, lacked scientific evidence to support their validity, but were developed by an exhaustive consensus method. The 1989 and 1991 PPPs are superseded by the AAO's 1996 PPP Cataract in the Adult Eye. This GPAC Working Group revised guideline remains consistent with AAO recommendations.

The Cataract Guideline Working Group reviewed material published since the release of the 1996 B.C. guideline, as well as the original literature. The Working Group found that while some new material has added to the general knowledge base and to the body of evidence regarding indications for and outcomes of cataract surgery, there are still relatively few published papers concerning evidence for the procedure and its outcomes. There are studies underway that could, in future, contribute to a stronger evidence base.

Benefits, Risks and Costs

Cataracts are one of the more common problems associated with ageing and occur as well, for specific medical reasons, in younger individuals.

Benefits:

The primary benefit of both surgical and non-surgical treatment of cataracts is the functional rehabilitation of affected individuals leading to an improvement in vision and greater autonomy and independence.

A review of the literature shows that if no co-morbid ocular conditions exist, cataract surgery results in an improvement in visual acuity in >95 per cent of patients and, if there is co-morbidity, an improvement in visual acuity in >80 per cent of patients. If the patient has other vision problems, such as macular degeneration, the improvement in visual acuity can be less than 80 per cent.

Risks:

Risks include anaesthetic and surgical complications (serious complications include endophthalmitis, retinal detachment and hemorrhage), decreased vision and blindness (less than 1:1000), and general complications associated with surgery in the elderly, especially those with other or multisystem illness. Complications are rare, the most common post-operative complication being posterior capsular opacity which may occur in up to 40 per cent of patients using polymethylmethacrylate lenses. These can be treated by Nd:YAG laser surgery.

Costs:

The cost of cataract treatment to the health system is significant. In 2003/04, 40,000 cataract surgeries were performed at a cost of \$17 million in surgical fees alone. Other significant costs include fees for anaesthesia, consultations and office visits, and office expenses for equipment and staff.

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Sponsors

This guideline was developed by the Guidelines and Protocols Advisory Committee, approved by the British Columbia Medical Association and adopted by the Medical Services Commission.

Funding for this guideline was provided in full or part through the Primary Health Care Transition Fund.

Revised Date: April 1, 2007

This guideline is based on scientific evidence current as of the effective date.

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The principles of the Guidelines and Protocols Advisory Committee are:

- to encourage appropriate responses to common medical situations
- to recommend actions that are sufficient and efficient, neither excessive nor deficient
- to permit exceptions when justified by clinical circumstances.

Cataracts – Treatment of Adults

A GUIDE FOR PATIENTS

Effective Date: September 1, 2005

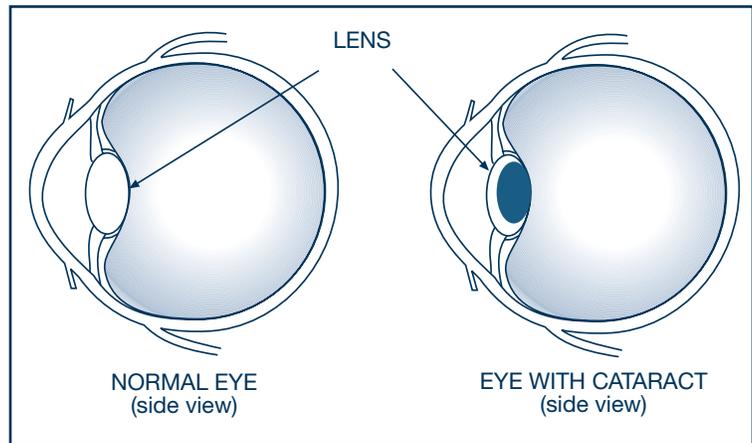
Your doctor has given you this patient guide because you have a cataract and may need surgery. You will probably have plenty of time to decide about cataract surgery. The British Columbia guideline, Treatment of Cataract in Adults, has been developed to assist you and your doctor in deciding how to best treat your cataract.

The recommendation is:

You should consider surgery only if your vision is so poor that you have difficulty with your usual daily activities

What is a Cataract?

A normal lens of an eye is clear. A cataract is a clouding in the lens that blocks some of the light and causes loss of vision. As a cataract develops, it becomes harder to see. Most people with cataracts have them in both eyes. One eye may be worse than the other. Some people with cataract don't even know it. The cataract may be small, or the changes in their eyesight may not bother them. Other people with cataract cannot see well enough to perform normal activities.



How do I Know if I Have a Cataract?

Usually a regular eye exam by your doctor is all that is needed to find a cataract. Sometimes other eye tests may be used to provide your doctor with more details about your eyesight.

Some common signs and symptoms of cataract are:

- Cloudy, fuzzy, foggy, or filmy vision
- Changes in the way you see colours
- Problems driving at night because headlights seem too bright
- Problems with glare from lights or from the sun
- Frequent changes in your eyeglass prescription
- Double vision
- Better near vision for awhile (in farsighted people)

These symptoms can also be signs of other eye problems.

How is a Cataract Treated?

Non-Surgical management: Just because you have a cataract does not mean that you need it removed right away. A change in your glasses, stronger bifocals, or the use of magnifying lenses and better lighting may help you see better and may be treatment enough. In fact, you may never need cataract surgery. Many people put off having surgery until their vision becomes difficult or unacceptable.

Surgery: Cataract surgery involves two steps. The surgeon removes the lens, leaving behind the lens capsule (the outer covering). Sometimes the surgeon will use sound waves to soften the lens and remove it through a needle. In most cases, your lens is replaced with a clear plastic lens at the same time. This artificial disc, called an intraocular lens, is placed in the lens capsule inside your eye. If an intraocular lens is not inserted, you will require either contact lenses or cataract glasses.

What Should I Know About Cataract Surgery?

You probably won't need to stay overnight in a hospital to have cataract surgery. However, you will need a friend or family member to take you home and someone to stay with you for at least a day to help you. It takes a few months for an eye to heal after cataract surgery. Most people who have a cataract recover from surgery with no problems and improved vision. In fact, serious complications are not common with modern cataract surgery.

Can a Cataract Return?

A cataract cannot return because all or part of the lens has been removed. In less than one-quarter of the people who have surgery, the lens capsule will become cloudy within two years after surgery. It causes the same vision problems as a cataract. Your doctor can recommend a further procedure to correct the problem.

How Do I Decide Whether Surgery is Right for Me?

Be sure to tell your doctor how your cataract has changed your vision and your life. Discuss the ways your cataract affects your ability to do the things you need and like to do, at work and at home.

The benefits of having cataract surgery are improved ability to carry out everyday activities at home and work, such as driving, reading, travelling and socializing, and increased safety, self-confidence, and independence.

No surgery is risk free. Although serious complications are rare with modern cataract surgery, if they occur they could result in loss of vision. If you have a cataract in both eyes, experts say it is best to wait until your first eye heals before having surgery on the second eye. If the eye that has a cataract is your only working eye, you and your doctor should weigh very carefully the benefits and risks of cataract surgery.

Some risks of cataract surgery include glaucoma (high pressure in the eye; about 1%), blood collection or bleeding inside the eye (about 1%), drooping eyelid (about 1%), swelling or clouding of the cornea (about 1%), infection (<1%), artificial lens damage or dislocation (<1%), retinal detachment (<1%), blindness (<0.1%), and loss of the eye (<0.01%).