Anthem

Clinical UM Guideline

Subject: Cataract Removal Surgery for Adults
Guideline #: CG-SURG-40
Status: Revised

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Description

This document addresses cataract extraction in adults as a treatment for visually-significant cataracts, when lens removal is needed to allow better visualization of the retina or as a component of another surgical procedure. This document does not address congenital cataracts.

Note: Please see the following related topics for additional information:

- CG-SURG-77 Refractive Surgery
- SURG.00061 Presbyopia and Astigmatism-Correcting Intraocular Lenses
- CG-SURG-114 Ophthalmic use of Nd:YAG Laser for Posterior Capsulotomy

Clinical Indications

Medically Necessary:

Cataract removal surgery in adults is considered **medically necessary** for **any** of the following:

A. The lens displays signs of cataract formation and the following criteria are met:
   1. The cataract is causing symptomatic impairment of visual function not correctable with a tolerable change in glasses or contact lenses;
      and
   2. Vision loss interferes with one or more of the following:
      a. Reading; **or**
      b. Viewing television; **or**
      c. Driving, **or**
      d. Meeting vocational or recreational needs; **or**
      e. Other daily activities;
         and
   3. Other eye disease(s) have been ruled out as the primary cause of decreased visual function including, but not limited to:
      a. Macular degeneration; **or**
      b. Diabetic retinopathy;
         and
   4. Surgery is reasonably expected to result in improved visual function.
      or

B. The individual has an underlying lens-related or other ophthalmologic disease for which cataract removal is indicated, including but not limited to the following:
   1. Phacomorphic glaucoma; **or**
   2. Phacolytic glaucoma; **or**
   3. Phacoanaphylactic endophthalmitis; **or**
   4. Dislocated or subluxated lens; **or**
   5. Angle closure glaucoma; **or**
   6. Elevated IOP associated with diagnosis of plateau iris configuration; **or**
   7. Uncontrolled pseudoexfoliation glaucoma;
      or

C. Lens removal is needed for either of the following:
   1. To allow better visualization of the retina; **or**
   2. As a component of another surgical procedure, including, but not limited to the following:
      a. Diabetes with diabetic retinopathy requiring photocoagulation management through clear media; **or**
      b. To monitor progression of glaucoma where opaque media limits visualization of the optic nerve or visual field assessment; **or**
      c. Preparation for vitrectomy; **or**
      d. Preparation for surgical repair of retinal detachment.

Not Medically Necessary:

Cataract removal surgery in adults is considered **not medically necessary** when the criteria specified above are not met, or when **either** of the following apply:

A. Glasses or visual aids provide satisfactory functional vision; **or**
B. When the visual function is not compromised by the cataract.

Coding

The following codes for treatments and procedures applicable to this guideline are included below for informational purposes. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement policy. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.

When services may be Medically Necessary when criteria are met:

CPT	
66830	Removal of secondary membranous cataract (opacified posterior lens capsule and/or anterior hyaloid) with corneo-scleral section, with or without iridectomy (iridocapsulotomy, iridocapsulectomy)
66840	Removal of lens material; aspiration technique, 1 or more stages
66850	Removal of lens material; phacofragmentation technique (mechanical or ultrasonic) (eg, phacoemulsification), with aspiration
66852	Removal of lens material; pars plana approach, with or without vitrectomy
66920	Removal of lens material; intracapsular
66940	Removal of lens material; extracapsular (other than 66840, 66850, 66852)
66982	Extracapsular cataract removal with insertion of intraocular lens prosthesis (1-stage procedure), manual or mechanical technique (eg, irrigation and aspiration or phacoemulsification), complex, requiring devices or techniques not generally used in routine cataract surgery (eg, iris expansion device, suture support for intraocular lens, or primary posterior capsulorrhexis) or performed on patients in the amblyogenic developmental stage; without endoscopic cyclophotocoagulation
66983	Intracapsular cataract extraction with insertion of intraocular lens prosthesis (1 stage procedure)
66984	Extracapsular cataract removal with insertion of intraocular lens prosthesis (1 stage procedure), manual or mechanical technique (eg, irrigation and aspiration or phacoemulsification); without endoscopic cyclophotocoagulation
66985	Insertion of intraocular lens prosthesis (secondary implant), not associated with concurrent cataract removal
66987	Extracapsular cataract removal with insertion of intraocular lens prosthesis (1-stage procedure), manual or mechanical technique (eg, irrigation and aspiration or phacoemulsification), complex, requiring devices or techniques not generally used in routine cataract surgery (eg, iris expansion device, suture support for intraocular lens, or primary posterior capsulorrhexis) or performed on patients in the amblyogenic developmental stage; with endoscopic cyclophotocoagulation
66988	Extracapsular cataract removal with insertion of intraocular lens prosthesis (1 stage procedure), manual or mechanical technique (eg, irrigation and aspiration or phacoemulsification); with endoscopic cyclophotocoagulation

HCPCS	
C1780	Lens, intraocular (new technology)
Q1004	New technology intraocular lens category 4 as defined in Federal Register notice
Q1005	New technology intraocular lens category 5 as defined in Federal Register notice
V2630	Anterior chamber intraocular lens
V2631	Iris supported intraocular lens
V2632	Posterior chamber intraocular lens

ICD-10 Procedure	
08DJ3ZZ	Extraction of right lens, percutaneous approach
08DK3ZZ	Extraction of left lens, percutaneous approach
08RJ3JZ	Replacement of right lens with synthetic substitute, percutaneous approach
08RK3JZ	Replacement of left lens with synthetic substitute, percutaneous approach

ICD-10 Diagnosis	
	All diagnoses

When services are Not Medically Necessary:
For the procedure codes listed above when criteria are not met or for situations designated in the Clinical Indications section as not medically necessary.

Discussion/General Information

According to the Centers for Disease Control and Prevention (2015), cataracts are the leading cause of blindness and visual impairment, accounting for 50% of blindness representing 20.5 million (17.2%) Americans aged 40 and older. The Eye Diseases Prevalence Research Group estimates the number of individuals with cataracts is estimated to increase by 50% affecting nearly 30.1 million Americans by 2020, based on the U.S. Census population estimates (EDPRG, 2004).

Clouding of the lens of the eye is common in older persons and rarely seen in newborn children. This condition is generally known as "cataracts," but more specifically as age-related cataracts (also known as senile cataracts) or when present in previously unaffected adults, and as "congenital cataracts" when present in newborn infants. Other secondary cataracts include drug-induced cataracts and traumatic cataracts. The only available treatment for cataracts at this time is surgical removal of the cataract and replacement of the affected lens with a prosthetic lens. A variety of risk factors have been associated with cataract development. The most common risk factors include diabetes mellitus (DM), long-term corticosteroid (topical, systemic, intravitreal, inhaled or oral) use and history of prior intraocular surgeries (AAO, 2016).

The American Academy of Ophthalmology (AAO) issued guidelines for the use of cataract surgery in the adult eye in 2016, which states:

> Evaluation of Visual Impairment
>
> There is no single test or measure that adequately describes the effect of a cataract on a patient's visual status or function ability. Similarly, no single test can properly define the threshold for performing cataract surgery. The Snellen visual acuity chart is an excellent tool for testing distance refractive error (e.g., myopia, hyperopia, astigmatism) in healthy eyes, and it is widely used clinically. Poor preoperative visual acuity correlates with significant postoperative functional improvement in many patients with cataract. However, testing only at distance with high-contrast letters viewed in low ambient lighting conditions underestimates the functional problems in common real-life situations. For example, reading (especially in poor-contrast environments), daytime or nighttime glare conditions, halos and starburst at night, and impaired optical quality causing monocular diplopia and ghosting are all important indicators. Because preoperative distance visual acuity alone may be an unreliable predictor of postoperative functional improvement, the decision to recommend cataract surgery should not be made solely on the basis of Snellen visual acuity.
>
> Studies have indicated that measures of functional visual impairment provide valid and reliable information that is not reflected in the measurement of visual acuity alone. For example, visual function status indices such as the Activities of Daily Vision

Scale (ADVS) and the Visual Function Index (VF-14) have been shown to better correlate with functional visual improvement after cataract surgery than measurement of Snellen visual acuity.

Cataract surgery should be recommended when indicated because of proven effectiveness in enhancing quality of life.

Indications for Surgery

The primary indication for surgery is visual function that no longer meets the patient's needs and for which cataract surgery provides a reasonable likelihood of improved vision. Other indications for a cataract removal include the following:

- There is clinically significant anisometropia in the presence of a cataract
- The lens opacity interferes with optimal diagnosis of management of posterior segment conditions
- The lens causes inflammation or secondary glaucoma (phacolytic, lens particle, phacoanaphylactic)
- The lens induces or risks angle closure

Contraindications to Surgery

Surgery for a visually impairing cataract should not be performed under the following circumstances:

- Tolerable refractive correction provides vision that meets the patient's needs and desires
- Surgery is not expected to improve visual function, and no other indication for lens removal exists
- The patient cannot safely undergo surgery because of coexisting medical or ocular conditions
- Appropriate postoperative care cannot be arranged
- The patient or patient's surrogate decision maker is unable to give informed consent for non-emergent surgery

The extracapsular cataract extraction (ECCE) surgical procedure is used primarily for advanced cataracts where the lens is too dense to dissolve into fragments. This procedure involves the removal of the lens nucleus in one piece with an incision of approximately 10-14 mm, leaving the capsule in place. This technique provides added support and improves the healing ability of the eye. The most commonly performed type of ECCE surgery in the United States is phacoemulsification. Phacoemulsification, a form of extracapsular cataract extraction also called small incision surgery, softens and breaks apart the lens using ultrasound energy which is then aspirated from the eye through a smaller incision (2-4 mm). After the cataract surgery is completed a foldable plastic or silicone lens may be passed through the smaller incision. The advantage of phacoemulsification technique includes a more rapid visual recovery due to the small incision size. The small incision may self-seal or require 1-2 sutures, decreasing likelihood of suture-induced astigmatism.

The intracapsular cataract extraction (ICCE) surgical procedure is rarely performed in the United States. This technique involves the removal of the entire lens and surrounding capsule. It has a higher rate of complications when compared to ECCE.

A Cochrane review (Riaz, 2006) describes results from a meta-analysis of 17 trials involving 9627 individuals randomized for surgical interventions for age-related cataracts. The authors concluded that:

> Phacoemulsification gives a better outcome than ECCE with a larger wound. We also found evidence that ECCE with a posterior chamber lens implant provides better visual outcome than ICCE with aphakic glasses. The long term effect of posterior capsular opacification (PCO) needs to be assessed in larger populations. The data also suggests that ICCE with an anterior chamber lens implant is an effective alternative to ICCE with aphakic glasses, with similar safety. Phacoemulsification provides the best visual outcomes but will only be accessible to the poorer countries if the cost of phacoemulsification and foldable IOLs decrease. Manual small incision cataract surgery provides early visual rehabilitation and comparable visual outcome to PHACO. It has better visual outcomes than ECCE and can be used in any clinic that is currently carrying out ECCE with IOL. Further research from developing regions are needed to compare the cost and longer term outcomes of these procedures e.g. PCO and corneal endothelial cell damage.

A retrospective study by Greenberg and colleagues (2011) reported on the prevalence and predictors of ocular complications associated with cataract removal in 45,082 participants undergoing care in the Veterans Health Administration (VHA) system. Diabetes mellitus (40.6%), chronic pulmonary disease (21.2%), age-related macular degeneration (14.4%), and diabetes with ophthalmic manifestations (14.0%) were the most common preoperative systemic and ocular comorbidities reported. Ocular complications most commonly reported among study participants included posterior capsular tear, anterior vitrectomy (or both) during surgery (3.5%) and posterior capsular opacification after surgery (4.2%). Identified predictors of complications included African-Americans, individuals who were either divorced or never married, DM with ophthalmic manifestations, traumatic cataract, and previous ocular surgery. The authors concluded, "Further large studies are warranted on the prevalence and predictors of ocular complications associated with cataract surgery for United States patient populations outside the VHA, including the role of factors such as resident training and surgeon volume."

Definitions

Cataract: Cloudiness of the natural lens inside the eye which can blur vision.

Cornea: The clear, transparent cover over the iris and pupil on the front part of the eye. The cornea is the first part of the eye that bends (or refracts) the light and provides most of the focusing power of the eye.

Crystalline (natural) lens: The eye's natural lens that bends light (refracts) to provide some of the focusing power of the eye. The eye's natural lens is able to change shape allowing the eye to focus on different distances.

Glaucoma: A disease characterized by destruction of the nerve fiber layer of the optic disc.

Optic nerve: The nerve that carries images of what is seen from the eye to the brain.

Retina: The light-sensitive layer of tissue that lines the inside of the eye and sends visual messages through the optic nerve to the brain.

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Government Agency, Medical Society, and Other Authoritative Publications:

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Websites for Additional Information

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History

Status	Date	Action
Revised	08/10/2023	Medical Policy & Technology Assessment Committee (MPTAC) review. Revised formatting and hierarchy of Clinical Indications section. Updated References section.
Revised	08/11/2022	MPTAC review. In the Medically Necessary criteria, modified criterion related to vision loss (bullet A2). Updated the Description, References, and Websites for Additional Information sections.
Reviewed	08/12/2021	MPTAC review. Updated Definitions, References, and Websites sections.
Reviewed	08/13/2020	MPTAC review. Updated References and Websites sections. Reformatted Coding section.
	12/31/2019	Updated Coding section with 01/01/2020 CPT changes; added 66987, 66988; revised descriptors for 66982, 66984.
Reviewed	08/22/2019	MPTAC review. Updated References and Websites sections.
Revised	09/13/2018	MPTAC review. Changed MN clinical indications for cataract removal surgery in adults with cataract formation, removed Snellen criteria and added criteria addressing functional impairment. Updated Description, References and Websites sections.
Reviewed	05/03/2018	MPTAC review. The document header wording updated from “Current Effective Date” to “Publish Date.” Updated Description, References and websites sections.
Reviewed	05/04/2017	MPTAC review. Updated formatting in Clinical Indications section. Updated Discussion, References and Websites sections.
Reviewed	05/05/2016	MPTAC review. Updated References and Websites sections. Removed ICD-9 codes from Coding section.
Reviewed	05/07/2015	MPTAC review. Description, References and Website sections updated.
New	05/15/2014	MPTAC review. Initial document development.

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