



Eye Surgery & Procedures

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Purpose:

To provide guidelines for Population Health and Provider Alliances associates to reference when making benefit determinations specific to eye procedures.

Procedure (includes Coverage Guidelines & Exclusion Criteria):

I. Cataract Surgery

- 1.0 For the evaluation for cataract surgery:
 - 1.1 A comprehensive eye examination or a brief or intermediate examination and an A-scan is medically necessary as a diagnostic test prior to cataract surgery:
 - 1.1.1 Other pre-operative ophthalmologic tests may be considered medically necessary if there is another diagnosis in addition to cataracts;
 - 1.2 The following specialized ophthalmologic services are considered to be medically necessary for the routine pre-operative work-up for cataract surgery:
 - 1.2.1 Optical coherence biometry;
 - 1.2.2 Ultrasound, A-scan, diagnostic:
 - B-scan ultrasound is considered medically necessary in place of A-scan ultrasound when the Member has a dense cataract;
 - 1.2.3 Ultrasound, A-scan, ophthalmic biometry:
 - B-scan ultrasound is considered medically necessary in place of A-scan ultrasound when the Member has a dense cataract;
 - 1.2.4 Ultrasound, with intra-ocular lens (IOL) power calculation.

- 20 Criteria for cataract removal surgery to be considered medically necessary, all of the following must be met:
 - 21 **Subjective** - The Member perceives that his or her ability to carry out needed or desired activities is impaired. The Member's decision is based on:
 - 21.1 The Member's own assessment of visual disability (e.g., impact on driving, viewing television, and special occupational or avocational needs) and, in particular, disability at near sight (e.g., reading, occupational activities requiring near vision); and
 - 21.2 The Member's perception of the impact of the visual disability on lifestyle (e.g., loss of independence, loss of income);
 - 22 **Objective** - The best-corrected visual Snellen acuity (BCVA) in the affected eye is 20/40 or worse, or the Member's BCVA is 20/30 or better in the affected eye but there is a significant loss of visual acuity in bright ambient light:
 - 22.1 The eye examination confirms that the cataract is the limiting factor for improving visual function when other factors do not preclude improvement following surgery, and the Member's medical and mental health permits surgery to be performed safely;



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- 2.3 Educational - The Member has been educated about the risks and benefits of cataract surgery, including alternatives to treatment, and the Member determines if the expected reduction in the disability outweighs the potential risk, cost, and inconvenience of surgery.

- 3.0 Cataract removal surgery is considered medically necessary for one-eyed Members with visual disability of 20/80 or worse due to a cataract; that is, a Member with irreversible, untreatable legal blindness (20/200 or worse) in the other eye.

- 4.0 Cataract removal surgery involving removal of the lens is considered medically necessary without regard to visual disability when any of the following criteria is met:
 - 4.1 Member has lens-induced disease (e.g., phakomorphic glaucoma, phakolytic glaucoma, phakoanaphylactic endophthalmitis, dislocated or subluxated lens);
-or-
 - 4.1 There is a need to visualize the fundus (retina) in an eye that has the potential for sight in any of the following conditions:
 - 4.1.1 Diabetes with significant risk of reduced visual acuity (diabetic retinopathy) requiring photocoagulation management through clear media to monitor glaucoma;
 - 4.1.2 To prepare for vitrectomy;
 - 4.1.3 To prepare for surgical repair of retinal detachment; *or*
 - 4.1.4 When other special investigations demonstrate intra-ocular pathology where further attention is important and requires clear media.

- 5.0 Documentation supporting medical necessity should consist of:
 - 5.1 Member history (including patient's assessment of functional status);
 - 5.2 Manifest refraction with BCVA (Note: Auto-refraction is not sufficient);
 - 5.3 Measurement of intraocular pressure;
 - 5.4 Assessment of pupillary function;
 - 5.5 Examination of ocular motility;
 - 5.6 External examination;
 - 5.7 Slit-lamp examination;
 - 5.8 Dilated examination of the fundus *unless* contraindicated by the anatomy of the eye;
 - 5.9 Notation that there is a reasonable expectation that removal of the cataract will improve the Member's visual acuity;
 - 5.10 Documentation that there was an adequate trial with updated corrective lenses;
 - 5.11 Degree of functional impairment (e.g. VF-14 assessment tool).

- 6.0 It is not recommended that surgery be performed on both eyes at the same time:
 - 6.1 The time interval between the two (2) eyes must be evaluated on a case-by-case basis with special attention to recovery of the vision in the operated-on eye so that the Member is not at risk of injury due to functional impairment during surgery of the second eye;



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- 6.2 Adequate time has passed (expected two weeks) to detect and treat the most immediate vision-threatening complications of cataract surgery;
- 6.3 The surgeon should discuss the post-operative corrective needs after cataract surgery in the first eye if the fellow eye does not meet criterion for cataract surgery. Second eye surgery to address refractive imbalance secondary to cataract surgery of the first eye is the responsibility of the Member;
- 6.4 Also, the measurement of glare disability by clinical methods is not standardized and that glare disability symptoms are not specific to cataract:
 - 6.4.1 Glare testing to substantiate Member's complaints of functional disability is considered more reliable in the presence of posterior subcapsular cataracts and readings are generally performed on the medium setting;
 - 6.4.2 Glare disability testing is not able to differentiate between visual loss due to cataract and visual loss due to other causes.

Associated codes: 66982 66983 66984

Covered Intraocular lens implants (IOLs):

- **Standard fixed monofocal posterior chamber IOLs**, Aspheric monofocal posterior chamber IOLs, and Standard fixed monofocal posterior chamber ultraviolet absorbing IOLs are all considered medically necessary for aphakia.
- **Standard posterior chamber IOL** is considered medically necessary for hyperopia.

Non-Covered Intraocular lens implants:

- **Piggyback posterior chamber IOLs** (i.e., placement of 2 IOLs in the same eye) are considered experimental and investigational.

Non-Covered Deluxe IOLs include, but are not limited to:

- **Accommodating posterior chamber IOLs** (e.g., Crystalens (Eyeonics Inc., Aliso Viejo, CA).
- **Multi-focal posterior chamber IOLs** (e.g., Array Model SA40 (Abbott Medical Optics, Santa Ana, CA), ReZoom (Abbott Medical Optics, Santa Ana, CA), Tecnis ZM900 and ZMAOO (Abbott Medical Optics, Santa Ana, CA), AcrySof ReSTOR, (Alcon Surgical, Fort Worth, TX), Acrysof Restor SA60D3 multifocal, Acrysof Natural ReSTOR SN60D3, AcrySof ReSTOR Aspheric IOL model SN6AD1, AcrySof ReSTOR Aspheric IOL model SN6AD3).
- **Astigmatism-correcting (toric) posterior chamber IOLs** (e.g., Staar Toric IOL (Star Surgical, Monrovia, CA), Staar Elastic Toric Lens Model AA4203TL, AcrySof Toric IOL (Alcon Surgical, Fort Worth, TX)) AcrySof Aspheric Toric IOL SN6AT3, SN6AT4 and SN6AT5, AcrySof Toric Models SA60T3, SA60T4 and SA60T5, AcrySof Toric Model SA60T, and Acrysof IQ Toric Model SN6ATT).
- Multi-focal IOL, Accommodating IOL and the Toric IOL are considered not medically necessary, and thus non-covered given that the intent of these IOLs is to obviate the need for reading glasses post-surgery.
- For Members who elect non-covered new technology IOLs, cataract removal and lens implantation would be considered medically necessary if the criteria for cataract surgery outlined above are met. The new technology lens itself would be non-covered and include codes V2787 & V2788.



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II. YAG Capsulotomy

- 1.0 Nd:YAG laser capsulotomy is medically necessary when performed following cataract extraction in Members with visually significant clouding (opacification) of the posterior portion of the membrane that surrounds the lens (the posterior capsule).
- 2.0 Criteria for coverage after three (3) months post-operatively:
 - 2.1 Member complains of decreased visual acuity related to distortion or glare, which affects functional visual ability;
 - 2.2 Decrease in best corrected visual acuity of two (2) lines and eye exam confirms diagnosis of posterior capsule opacification excluding other ocular causes of functional impairment;
 - 2.3 Yag laser capsulotomy is expected to be performed only once per eye per lifetime;
 - 2.4 Capsulotomy is needed to visualize fundus;
 - 2.5 When used for Members with posterior capsular opacification regardless of functional impairment for any of the following reasons:
 - 2.5.1 To provide better visualization of the posterior pole for Members with:
 - 2.5.1.1 Diabetic retinopathy; *or*
 - 2.5.1.1 Macular disease; *or*
 - 2.5.1.1 Retinal detachment; *or*
 - 2.5.1 To diagnose posterior pole tumors; *or*
 - 2.5.1 To evaluate the optic nerve head;
 - 2.6 If none of the above criteria are met, Nd:YAG laser capsulotomy performed within four (4) months of cataract surgery is considered experimental and investigational because of a lack of evidence of the value of routine prophylactic capsulotomy following cataract surgery.

Non-Covered Experimental & Investigational:

• Nd:YAG laser vitreolysis	• Nd:YAG laser peripheral iridotomy, and
• Nd:YAG laser anterior hyaloidotomy	• Nd:YAG laser posterior hyaloidotomy

Note: YAG capsulotomies scheduled within six (6) weeks after implantation of an IOL will be considered part of the reimbursement of the cataract surgery.

Corneal Procedures

III- Corneal Procedures

Post-Cataract Post-Transplant Corneal Surgery

- 1.0 Correction of surgically induced astigmatism with a corneal relaxing incision (including limbal relaxing incisions) or corneal wedge resection is considered medically necessary if the Member had previous penetrating keratoplasty (corneal transplant) within the past 60 months or cataract surgery within the last 36 months and both of the following criteria are met:
 - 1.1 The degree of astigmatism must be 3.00 diopters or greater; *and*
 - 1.2 The Member must be intolerant of glasses or contact lenses.

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Phototherapeutic keratectomy (PTK) may be considered medically necessary for the following corneal conditions:

- 1.1 Corneal scars and opacities (including post-traumatic, post-infectious, post-surgical, and secondary to pathology);
- 1.2 Epithelial membrane dystrophy;
- 1.3 Irregular corneal surfaces due to Salzmann's nodular degeneration or keratoconus nodules;
- 1.4 Recurrent corneal erosions when more conservative measures (e.g., lubricants, hypertonic saline, patching, bandage contact lenses, gentle debridement of severely aberrant epithelium) have failed to halt the erosions;
- 1.5 Superficial corneal dystrophy (including granular, lattice, and Reis-Bückler's dystrophy).

Epikeratoplasty (or epikeratophakia) may be considered medically necessary for the following indications:

- 1.1 Childhood aphakia since contact lenses are difficult for children to use and intraocular lens implants may result in long-term complications in children;
- 1.2 Scarred corneas and corneas affected with endothelial dystrophy;
- 1.3 Adult aphakia only in circumstances where secondary implantation of an intraocular lens is not feasible because re-entering the eye could affect outcome (e.g., vitreous in the anterior chamber, history of uveitis, disorganized anterior chamber that cannot support an intraocular lens, significant corneal endothelial disease, or gross corneal irregularity after trauma).

Lamellar keratoplasty (non-penetrating keratoplasty)

- 1.0 Lamellar keratoplasty (non-penetrating keratoplasty) may be considered medically necessary for treatment of corneal diseases, including scarring, edema, thinning, distortion, dystrophies, degenerations, and keratoconus.
- 2.0 It is considered investigational for pterygium and when performed solely to correct astigmatism and other refractive errors.

Corneal Transplantation, Penetrating keratoplasty (PK) may be considered medically necessary for the following conditions:

- 1.1 Poor visual acuity caused by an opaque cornea;
- 1.2 Remove active corneal disease, such as persistent severe bacterial, fungal, or amebic inflammation of the cornea (keratitis) after appropriate antibiotic therapy;
- 1.3 Restore altered corneal structure or to prevent loss of the globe that has been punctured;
- 1.4 Treat corneal diseases, including bullous keratopathy, keratoconus, corneal scar with opacity, keratitis, corneal transplant rejection, Fuch's dystrophy, corneal degeneration, other corneal dystrophies, corneal edema, and herpes simplex keratitis.



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Intrastromal Corneal Ring Segments (INTACS) may be considered medically necessary for:

- 1.1 Reduction or elimination of myopia or astigmatism in Members with keratoconus; **or**
- 1.2 Pellucid marginal degeneration who are no longer able to achieve adequate vision using contact lenses; **or**
- 1.3 Spectacles and for whom corneal transplant is the only remaining option.

Keratoprosthesis (Artificial Cornea)

- 1.0 The Boston Keratoprosthesis (Boston KPro) may be considered medically necessary for corneal blindness in Members who meet the following criteria:
 - 1.1 The cornea is severely opaque and vascularized, with vision less than 20/400 in the affected eye and lower than optimal vision in the opposite eye; **and**
 - 1.2 The Member has had two (2) or more prior failed penetrating keratoplasties (corneal transplants), with poor prognosis for further grafting; **and**
 - 1.3 The Member does not have end-stage glaucoma or retinal detachment.

Endothelial keratoplasty (Descemet's stripping endothelial keratoplasty (DSEK), Descemet's stripping automated endothelial keratoplasty (DSAEK), and Descemet's membrane endothelial keratoplasty (DLEK)

- 1.0 Endothelial keratoplasty (Descemet's stripping endothelial keratoplasty (DSEK), Descemet's stripping automated endothelial keratoplasty (DSAEK), and Descemet's membrane endothelial keratoplasty (DLEK)) may be considered medically necessary for the following indications in persons with endothelial failure and otherwise healthy corneas:
 - 1.1 Bullous keratopathy;
 - 1.2 Corneal edema;
 - 1.3 Endothelial corneal dystrophy and other posterior corneal dystrophies;
 - 1.4 Mechanical complications due to corneal graft or ocular lens prostheses;
 - 1.5 Rupture of Descemet's membrane.
- 2.0 Otherwise, Endothelial keratoplasty procedures are considered experimental and investigational for:
 - 2.1 Conditions with concurrent endothelial disease and anterior corneal disease, including anterior corneal dystrophies, anterior corneal scars from trauma or prior infection;
 - 2.2 Ectatic conditions of the cornea such as keratoconus, pellucid marginal degeneration, and ectasia after previous laser vision correction surgery; and
 - 2.3 All other indications (e.g., iris atrophy).



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Corneal Graft with Amniotic Membrane

- 1.0 Preserved human amniotic membrane transplantation for ocular surface reconstruction may be considered medically necessary in Members who are refractory to conventional treatment (e.g. lubricants, artificial tears, topical medications) and have any of the following conditions:
 - 1.1 Total loss of stem cells (one eye involvement only):
 - 1.1.1 Chemical/thermal injuries of the ocular surface;
 - 1.1.2 Contact lens-induced keratopathy or toxic effects from lens-cleaning solutions;
 - 1.1.3 Multiple surgeries or cryotherapies to the limbal region;
 - 1.1.4 Stevens-Johnson syndrome;
 - 1.1.5 Large Pterygium excision;
 - 1.2 Hypofunction of stem cells (one or both eyes can be involved):
 - 1.2.1 Aniridia (hereditary);
 - 1.2.2 Bullous keratopathy;
 - 1.2.3 Chronic limbitis;
 - 1.2.4 Keratitis associated with multiple endocrine deficiency (hereditary);
 - 1.2.5 Neurotrophic keratopathy (neuronal or ischemic);
 - 1.2.6 Peripheral corneal ulcerative keratitis.

Refractive Surgery

- 1.0 Most benefit plans specifically exclude coverage of surgery to correct refractive errors. These exclusions apply to:
 - 1.1 Radial keratotomy (RK);
 - 1.2 Astigmatic keratotomy;
 - 1.3 Photorefractive keratectomy (PRK);
 - 1.4 Photoastigmatic keratectomy (PARK);
 - 1.5 Laser-in-situ keratomileusis (LASIK);
 - 1.6 Keratomileusis;
 - 1.7 Epikeratophakia;
 - 1.8 Implantation of intrastromal corneal ring segments; and
 - 1.9 Other surgical procedures done for refractive correction.
- 2.0 Otherwise, refractive surgical procedures are considered not medically necessary because spectacles or contact lenses have been shown to provide more accurate corrections of refractive errors than refractive surgery.

Corneal Ultrasound

- 1.0 Ultrasound corneal pachymetry is considered medically necessary for the following indications:
 - 1.1 Bullous keratopathy; *or*
 - 1.2 Corneal edema; *or*
 - 1.3 Corneal refractive surgery (pre- and post-operative evaluation) *; *or*
 - 1.4 Corneal transplant (penetrating keratoplasty) (pre- and post-operative evaluation); *or*

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- 1.5 Evaluation of complications of corneal refractive surgery (once); *or*
 - 1.6 Evaluation of corneal rejection post penetrating keratoplasty; *or*
 - 1.7 Fuchs' endothelial dystrophy; *or*
 - 1.8 Persons with glaucoma or glaucoma suspects (testing is considered medically necessary once per lifetime); *or*
 - 1.9 Posterior polymorphous dystrophy.
- 2.0 Repeat ultrasound corneal pachymetry for corneal diseases and injuries is considered not medically necessary if performed more frequently than once every six (6) months.

Strabismus Surgery in Adults

- 1.0 Strabismus repair may be considered medically necessary for adults (17 years of age or older) with the following indications:
- 1.1 Restoration of binocular fusion and elimination of diplopia;
 - 1.2 Acute cranial nerve palsy (less than two years);
 - 1.3 Thyroid ophthalmopathy;
 - 1.4 Acquired vertical strabismus (i.e., following cataract surgery);
 - 1.5 Breakdown of an intermittent deviation-vertical or horizontal.
- 2.0 Otherwise the repair of strabismus is considered to be cosmetic for the following:
- 2.1 No light perception (or extremely poor vision);
 - 2.2 A strabismic deviation that has been present and not addressed for over five (5) years;
 - 2.3 Clinical findings do not support restoration of binocular vision with prisms without inducing diplopia;
 - 2.4 Member does not complain of diplopia (or a disturbance from the motility disorder);
 - 2.5 Angle of strabismus is less than 12 prism diopters horizontal or less than 5 prism diopters vertical.

Botulinum Toxin Usage

- 1.0 Botulinum toxin may be considered medically necessary for the following conditions:
- 1.1 Strabismus, including gaze palsies accompanying diseases such as Neuromyelitis optica or Schilder's disease.
 - 1.2 Blepharospasm, characterized by intermittent or sustained closure of the eyelids caused by involuntary contractions of the orbicularis oculi muscle.
- 2.0 Non-covered conditions which would be considered cosmetic include, but are not limited to:
- 2.1 Unilateral myokymia which warrants observation;
 - 2.2 Adults with uncorrected congenital strabismus and no binocular fusion.

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Coverage Issues Guidelines and Medical Technology Assessment Recommendations are developed to determine coverage for AvMed's benefits and are published to provide a better understanding of the basis upon which coverage decisions are made. AvMed makes coverage decisions using these guidelines, along with the Member's benefit document. The use of this guideline is neither a guarantee of payment nor a final prediction of how specific claim(s) will be adjudicated.

Coverage Issues Guidelines and Medical Technology Assessment Recommendations are developed for selected therapeutic or diagnostic services found to be safe, but proven effective in a limited, defined population of patients or clinical circumstances. They include concise clinical coverage criteria based on current literature review, consultation with practicing physicians in the AvMed service area who are medical experts in the particular field, FDA and other government agency policies, and standards adopted by national accreditation organizations.

Treating providers are solely responsible for the medical advice and treatment of Members. This guideline may be updated and therefore is subject to change.