Executive Summary

In general, mild-to-moderate impairment of the visual field is of no clinical significance and requires no intervention. When obstruction of the visual field becomes severe or significant enough to interfere with the patient’s ability to perform activities of daily living, surgical intervention may be warranted.

Eyelid surgery, or blepharoplasty, is a procedure to remove excess skin, muscle, or fat from the upper and lower eyelids. Blepharoplasty can correct drooping upper lids, as well as puffy bags below the eyes—features that make individuals appear older and more tired and that may interfere with vision.

Introduction

Blepharoplasty is probably best known for its cosmetic indication to create a more youthful, wide-eyed appearance, but the procedure is also used for numerous functional indications that require restoration of impaired vision. Although new technologies continue to alter and refine blepharoplasty techniques, the indications for blepharoplasty have remained unchanged for a number of years.

Documenting the medical necessity of blepharoplasty continues to pose a challenge for physicians. Medicare and other health plans generally view the procedure as cosmetic. Therefore, thorough documentation is critical for determining medical necessity for patients who have significant vision problems. Many health insurance plans require visual field testing. Results of these tests alone, however, often do not provide enough evidence for medical necessity, as some patients may manipulate test results by mimicking a defect by lowering their lids during testing. Documentation must, therefore, also include a detailed medical history, including patient complaints of vision problems, as well as physical-examination findings and any preoperative photographs.

Visual Field Testing

There are two basic types of visual field, or perimetry, tests that are commonly used to measure the severity of eyelid and brow defects. Depending on whether or not the stimulus moves, the test can be classified as static or kinetic. Static perimetry tests different locations throughout the field, one at a time, and kinetic perimetry uses a mobile stimulus moved by an operator. Although many techniques are available for measuring the visual field, many health insurance plans require testing on either a Goldmann perimeter or a programmable automated perimeter (e.g., Humphrey Field Analyzer).

Both the Goldmann and the Humphrey perimeters are capable of performing both types of tests, but they are commonly used for kinetic and static perimetry, respectively. Perimeters can also be classified as manual or automated, depending on whether the stimulus location is moved by hand (Goldmann) or changed by a computer (Humphrey).

Goldmann Perimetry

The Goldmann visual field testing equipment provided the first standardized measurement technique. Testing is done in a bowl-shaped instrument called a perimeter, so that all testing distances are equal while the background and stimulus luminances can be tightly controlled. During Goldmann perimetry, dimmer stimuli are used for testing the very center of vision, with the intensity increasing as more peripheral portions of the field are tested. The test results are reported as isopters, which are contour lines that are drawn by the operator to outline the areas where stimuli of various intensity can be perceived. Each isopter is color-coded to the size and intensity of the stimulus used.
The use of an operator introduces the potential for operator bias, but has the advantage of allowing further exploration of certain areas of interest. Some patients might prefer Goldmann perimetry to automated testing because there is human interaction. However, Goldmann visual field testing is very much operator-dependent. Results may not be reproducible by a different operator, and it does not have the advantages of a computerized system for storage and comparison to normative data.

Indications for Goldmann visual field testing:

- The patient cannot reliably perform an automated visual field. Some patients fall asleep or become disinterested if left unmonitored during automated testing. Goldman perimetry cannot be performed without an operator, so constant patient monitoring is present.
- The full extent of the visual field needs to be tested. Goldmann visual field testing can be a reliable, reproducible test for the full field and can usually be performed in a short amount of time.
- A visual field defect found on an automated visual field needs to be confirmed. In routine practice, the automated field is usually just repeated in these cases. However, if the results must be confirmed on the same day the original automated field and the patient is tired, then Goldmann visual field testing may be appropriate. In addition, a new visual field found on automated testing that also manifests on Goldmann field testing is more likely a true visual field defect than an artifact of the test.

Automated Perimetry

In recent decades, there has been a move from manual to automated perimetry. Common brands of equipment include not only Humphrey, but also Octopus and Dicon. Since kinetic perimetry is not easily automated, these machines generally perform threshold static perimetry.

In static perimetry, the stimulus size and intensity are varied, while presentation is limited to various fixed locations. First, a dim light is presented at a particular location. If the patient does not see the light, it is gradually made brighter until it can be seen. The minimum brightness required for the detection of a light stimulus is called the threshold sensitivity level of that location. This procedure is then repeated at several other locations, until the entire visual field is tested. The sensitivity found at each point can be presented in a matrix of numbers, or as a gray-scale pattern with interpolation for the points that were not tested.

Result printouts usually include the patient’s name, identification number, and date of birth at the top, along with the date and time of testing, visual acuity, pupil size, and eye tested. The printout also shows the test pattern and strategy used, the test duration, stimulus size, and the background brightness.

Determining Medical Need for Blepharoplasty

The normal extent of the superior visual field is approximately 55 to 60 degrees at the 90-degree meridian. Impairment of the superior visual field can range from 20%, considered mild ptosis, to 64% in more severe cases where the eyelid crosses the middle of the pupil.

Health Insurance Plans

In order to consider blepharoplasty medically necessary, many plans require specific criteria that must be well documented. It is recommended that visual field testing demonstrates a minimum of at least 12-degree or 30% loss of upper field vision with upper lid skin and/or upper lid margin in repose and elevated (by taping of the lid) to demonstrate potential correction by the proposed procedure or procedures.

Examples of plan requirements for visual field testing include:

- Clinically significant impairment of upper/outer visual fields (<30 degrees from fixation) by excessive upper eyelid skin (dermatochalasis). Visual fields must be extended by at least 15 degrees by raising the redundant upper eyelid tissue, as documented by either a Goldmann perimeter of a programmable automated testing method. Photographs must be submitted and should be consistent with degree of visual field impairment described in the medical
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Superior visual field testing, with the eyelids taped and un-taped (taping eyelids simulates the effect of a brow lift), showing improvement of 12 degrees or greater, or 30% or more improvement of overall superior visual field.

Blepharochalasis, dermatochalasis, or pseudoptosis with upper visual field loss of at least 20 degrees or 30% on visual field testing that is corrected when the upper lid margin is elevated by taping the eyelid AND preoperative frontal photographs demonstrate BOTH of the following:

- Light reflex in the cornea with the head perpendicular to the plane of the camera (i.e., not tilted).
- Findings consistent with visual field loss documented on visual field testing.

Medicare

Medicare covers blepharoplasty procedures and repair of blepharoptosis and anesthesia for these procedures only when they are performed as functional/reconstructive corrective surgery and when:

- Documented ptosis, pseudoptosis, or dermatochalasis is present
- There is interference with vision or visual field
- There is difficulty reading due to upper eyelid drooping
- The patient is looking through the eyelashes or seeing the upper eyelid skin
- There is chronic blepharitis
- There is visual impairment with near or far vision due to dermatochalasis, blepharochalasis, or blepharoptosis
- There is symptomatic redundant skin weighing down on upper lashes
- There is chronic, symptomatic dermatitis of pretarsal skin caused by redundant upper lid skin
- There are prosthesis difficulties in an anophthalmic socket

Medicare expects that the conditions will be appropriately documented. The visual fields should demonstrate a significant loss of superior visual field and potential correction of the visual field by the proposed procedures(s). A minimum 12-degree or 30% loss of upper field of vision with upper lid skin and/or upper lid margin in repose and elevated (by taping of the lid) to demonstrate potential correction by the proposed procedure(s) is required. Photographs may be used to demonstrate the eyelid abnormality(ies) necessitating the procedures(s), but are not required by most Medicare carriers. However, it may be helpful to maintain a set of photographs in the event that Medicare develops the claim for additional information.

Professional Society Guidelines for Blepharoplasty

The American Society of Plastic Surgeons (ASPS)

The ASPS practice parameter for blepharoplasty and the ASPS recommended insurance coverage criteria for third-party payers states that when there is a visual field impairment, blepharoplasty procedures are considered to be reconstructive. The ASPS considers blepharoplasty reconstructive when it is performed to: correct visual impairment caused by ptosis, blepharochalasis; or repair congenital abnormalities or defects caused by trauma or tumor-ablative surgery. If the patient is experiencing visual field impairment, formal visual field testing by an optometrist or ophthalmologist is recommended.

The ASPS states that preoperative photographs may be used in patient assessment and may be taken to meet the requirements of both insurers and surgeons. Additional photographs may include upward and downward gaze, as well as oblique views.

The American Academy of Ophthalmology (AAO)

According to the AAO, blepharoplasty procedures and repairs of blepharoptosis are considered functional or reconstructive surgery to correct any of the following:

- Visual impairment with near or far vision due to dermatochalasis, blepharochalasis, or blepharoptosis
- Symptomatic redundant skin weighing down the upper lashes
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- Chronic, symptomatic dermatitis of pretarsal skin caused by redundant upper lid skin
- Prosthesis difficulties in an anophthalmic socket

Documented patient complaints that justify functional surgery and are commonly found in patients with ptosis, pseudoptosis, or dermatochalasis include:

- Interference with vision or visual field
- Difficulty reading due to upper eyelid drooping
- Looking through the eyelashes or seeing the upper eyelid skin
- Chronic blepharitis

Photographs should demonstrate one or more of the following:

- The upper eyelid margin approaches to within 2.5mm (1/4 of the diameter of the visible iris) of the corneal light reflex
- The upper eyelid skin rests on the eyelashes
- The upper eyelid indicates the presence of dermatitis
- The upper eyelid position contributes to difficulty tolerating a prosthesis in an anophthalmic socket
- Visual field recorded to demonstrate a minimum of 12-degree or 30% loss of upper field of vision with upper lid skin and/or upper margin in repose and elevated (by taping of the lid) to demonstrate potential correction by proposed procedure or procedures

The Role of External Independent Medical Review in Determining Medical Necessity for Blepharoplasty

The versatility of blepharoplasty for both cosmetic and medical conditions complicates the process of determining medical necessity for the procedure. Medical necessity must be supported by thorough clinical documentation, including medical history, physical exam, visual field testing, and photographs. An independent medical review, which is normally used by healthcare payers, looks at whether or not a specific procedure was medically necessary.

The board-certified physician specialists who work with IROs keep up-to-date with the latest medical research literature and with the latest standard of care. These specialists allow healthcare plans to make sure that the requested procedures fall under the medical necessity requirements before approving a course of treatment. Independent medical review also avoids conflicts of interest, which can relate to economics, lack of specialists to review cases, or having the same doctor who denied a case review an appeal.

Conclusions

Blepharoplasty, which involves the surgical removal of excess skin and fatty tissue around the eyes, is commonly performed for cosmetic reasons to improve appearance. However, in some cases, the surgery may be necessary to remove overhanging skin folds to improve the function of the upper eyelid, as well as to improve vision. In addition to specific documentation requirements, many health insurance plans require visual field testing to demonstrate medical necessity for blepharoplasty. External independent medical review is valuable in determining medical necessity since blepharoplasty cases can vary subtly. The board-certified physicians who work with IROs see numerous cases and are able to provide their expertise in evaluating the results of visual field testing and the quality of photographs.
Bibliography


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