

We propose to make the following changes to current 2.00A7:

- Introduce “value” as a term to express visual efficiency, in addition to the term “percentage,” in proposed 2.00A7a, which we explain in the paragraphs below.
- Add current Table 1 (*Percentage of Visual Acuity Efficiency Corresponding to Best-Corrected Visual Acuity*), which is located at the end of the current special senses and speech listings, to proposed 2.00A7b because it is more useful to our adjudicators to place this table in the introductory text immediately after the explanation of visual acuity efficiency. Our current rules describe overall visual efficiency as a percentage and we provide the equivalent visual acuity efficiency percentages corresponding to Snellen best-corrected central visual acuities for distance in Table 1. In the proposed table, we would include a column for visual acuity efficiency values that correspond to Snellen best-corrected central visual acuities for distance.
- Expand current 2.00A7b and redesignate as proposed 2.00A7c. A person’s visual field efficiency can be expressed as a percentage (using the visual field determined by kinetic perimetry) or as a value (using the MD determined by automated static threshold perimetry). We would explain that a visual field efficiency percentage of 20 is comparable to an MD of 22, which we currently explain in training.
- Add guidance in proposed 2.00A7c(i) on how to calculate visual field efficiency value using the MD determined by automated static threshold perimetry, which we currently provide in our internal operating instructions.
- Redesignate current 2.00A7b as proposed 2.00A7c(ii).
- Add current Table 2 (*Chart of Visual Fields*), which is located at the end of the current special senses and speech listings, to proposed 2.00A7c(ii), and redesignate it as Figure 1, because it is more useful to our adjudicators to place this figure in the introductory text immediately after the explanation of visual field efficiency. We would also add, and make minor changes to, the example for calculating visual field efficiency percentage under the current table to proposed 2.00A7c(ii)A and B.
- Expand current 2.00A7c and redesignate as proposed 2.00A7d. We would add an example for calculating visual efficiency value in proposed 2.00A7d(i). In proposed 2.00A7d(ii), we would revise the example for calculating visual efficiency percentage, which is in current 2.00A7c, to simply state more clearly how we convert a decimal value to a percentage.

Section 2.00A8, What are our requirements for an acceptable perimeter?

We propose to move the guidance on acceptable perimeters in current 2.00A6a(ii)A–F to proposed section 2.00A8 because perimeter manufacturers must provide us with the evidence that their automated static threshold perimeter(s) meet these requirements before we can use any results of visual field testing performed on their perimeters to evaluate visual field loss. Although we are not proposing to change these requirements, we believe placing them at the end of the introductory text will allow adjudicators to more quickly access the guidance on visual field testing requirements that are applicable to testing performed on all acceptable perimeters. We would also remove the reference to the HFA because acceptable perimeters may change over time and we do not want to appear to be giving disorders that may result in vision loss or a loss in visual functioning (for example, lepharospasm) in our internal

operating instructions and training.

Section 2.00A5, How do we measure your best-corrected central visual acuity?

We propose to make the following changes to current 2.00A5:

- Provide guidance in proposed 2.00A5a(ii) that explains how we use visual acuity measurements not recorded in Snellen notation, such as counts fingers (CF) or no light perception (NLP), to evaluate your vision loss. This guidance is in response to questions from our adjudicators.
- Add the guidance in current 2.00A8a, which explains how we use test charts that measure visual acuity between 20/100 and 20/200, to proposed 2.00A5b.
- Provide guidance in proposed 2.00A5d, which we currently provide in our internal operating instructions, that explains how we use the results of cycloplegic refraction.

Section 2.00A6, How do we measure your visual fields?

We propose to make the following changes to current 2.00A6:

- Combine the guidance in current 2.00A6a(i) and 2.00A6a(ii) in proposed 2.00A6a, with one exception. As we explain below, we would move the guidance that explains our requirements for acceptable perimeters in current 2.00A6a(ii) to proposed section 2.00A8.
- Move the guidance on visual field testing requirements in current 2.00A6a(iii), (vi), and (vii), to proposed 2.00A6b(i), (ii), and (iii), respectively.
- Revise our guidance on automated static threshold perimeters to remove specific references to perimeter manufacturers. In the preamble to our final rules published in the **Federal Register** on November 20, 2006, we explained that while the National Research Council (NRC) 2002 report, *Visual Impairments: Determining Eligibility for Social Security Benefits*, cited both the Humphrey Field Analyzer and the Octopus perimeter as acceptable perimeters, we were not including the Octopus perimeter as an example of an acceptable perimeter. We decided not to include the Octopus perimeter at that time because we did not intend to list every acceptable perimeter in our rules.

However, since the publication of those rules, we have received numerous questions from adjudicators on the acceptability of the tests performed on Octopus and other perimeters. We have determined that other tests (including the Octopus 32) and perimeters (including the Octopus 300 Series), meet our requirements for acceptable testing and acceptable perimeters.

- Move the guidance in current 2.00A6a(iv), which explains how we evaluate vision loss under 2.03A, to proposed 2.00A6c, and add the Octopus 32 test as an acceptable test.
- Move the guidance in current 2.00A6a(v), which explains how we evaluate vision loss under 2.03B, to proposed 2.00A6d. We would add the definition of the term mean deviation (or defect), abbreviated as MD, which we use in current and proposed 2.03B but do not define. We would explain that Humphrey Field Analyzer (HFA) tests report the MD as a negative number and, therefore, we use the absolute value of the MD when determining whether the person's visual field loss meets the listing.
- Move the guidance in current 2.00A6a(viii), which explains when we can use visual field measurements obtained using kinetic perimetry to evaluate vision loss, to proposed 2.00A6e.
- Move the guidance on visual field screening tests in current 2.00A6a(ix) to proposed 2.00A6f.

□ Move the guidance on the use of corrective lenses in visual field testing in current 2.00A6b to proposed 2.00A6g.

□ Move the guidance on scotomas in current 2.00A8c to proposed 2.00A6h.

2.00A7, How do we determine your visual acuity efficiency, visual field efficiency, and visual efficiency?

We propose to make the following changes to current 2.00A7:

□ Introduce “value” as a term to express visual efficiency, in addition to the term “percentage,” in proposed

2.00A7a, which we explain in the paragraphs below.

□ Add current Table 1 (*Percentage of Visual Acuity Efficiency Corresponding to Best-Corrected Visual Acuity*), which is located at the end of the current special senses and speech listings, to proposed 2.00A7b because it is more useful to our adjudicators to place this table in the introductory text immediately after the explanation of visual acuity efficiency. Our current rules describe overall visual efficiency as a percentage and we provide the equivalent visual acuity efficiency percentages corresponding to Snellen best-corrected central visual acuities for distance in Table 1. In the proposed table, we would include a column for visual acuity efficiency values that correspond to Snellen best-corrected central visual acuities for distance.

□ Expand current 2.00A7b and redesignate as proposed 2.00A7c. A person’s visual field efficiency can be expressed as a percentage (using the visual field determined by kinetic perimetry) or as a value (using the MD determined by automated static threshold perimetry). We would explain that a visual field efficiency percentage of 20 is comparable to an MD of 22, which we currently explain in training.

□ Add guidance in proposed 2.00A7c(i) on how to calculate visual field efficiency value using the MD determined by automated static threshold perimetry, which we currently provide in our internal operating instructions.

□ Redesignate current 2.00A7b as proposed 2.00A7c(ii).

□ Add current Table 2 (*Chart of Visual Fields*), which is located at the end of the current special senses and speech listings, to proposed 2.00A7c(ii), and redesignate it as Figure 1, because it is more useful to our adjudicators to place this figure in the introductory text immediately after the explanation of visual field efficiency. We would also add, and make minor changes to, the example for calculating visual field efficiency percentage under the current table to proposed 2.00A7c(ii)A and B. □ Expand current 2.00A7c and redesignate as proposed 2.00A7d. We would add an example for calculating visual efficiency value in proposed 2.00A7d(i). In proposed 2.00A7d(ii), we would revise the example for calculating visual efficiency percentage, which is in current 2.00A7c, to simply state more clearly how we convert a decimal value to a percentage.

Section 2.00A8, What are our requirements for an acceptable perimeter?

We propose to move the guidance on acceptable perimeters in current 2.00A6a(ii)A–F to proposed section 2.00A8 because perimeter manufacturers must provide us with the evidence that their automated static threshold perimeter(s) meet these requirements before we can use any results of visual field testing performed on their perimeters to evaluate visual field loss. Although we are not proposing to change

these requirements, we believe placing them at the end of the introductory text will allow adjudicators to more quickly access the guidance on visual field testing requirements that are applicable to testing performed on all acceptable perimeters. We would also remove the reference to the HFA because acceptable perimeters may change over time and we do not want to appear to be giving preference in our rules to one manufacturer over another.

Other Changes

We propose to remove 2.00A8b, which describes blepharospasm, because it does not provide useful guidance to adjudicators on how to evaluate vision loss due to blepharospasm and has led to repeated questions from our adjudicators. As we explained earlier with cortical visual disorders, we intend to provide guidance for evaluating a person's vision loss due to blepharospasm and any other visual disorders that may result in vision loss or a loss in visual functioning in our internal operating instructions and training.

What changes are we proposing to the listings for evaluating visual disorders in adults?

In the following paragraphs, we describe the substantive changes to the adult listings for evaluating visual disorders in part A of appendix 1 to subpart P of part 404. We propose to:

- Add 2.04A to evaluate visual efficiency determined using the MD from acceptable automated static threshold perimetry.
- Redesignate current 2.04, which we use to evaluate visual efficiency determined by kinetic perimetry, as proposed 2.04B.

What changes are we proposing to the introductory text and listings for evaluating visual disorders in children?

We propose to clarify, simplify, and reorganize the introductory text in the childhood rules as in the adult rules. Since these are conforming changes, we do not summarize them here. We also propose to move the examples in current 102.00A5b(iii) to proposed 102.02B. We believe it is more helpful to adjudicators to include these examples directly in the listing to which they apply.

What is our authority to make rules and set procedures for determining whether a person is disabled under the statutory definition?

The Act authorizes us to make rules and regulations and to establish necessary and appropriate procedures to implement them. Sections 205(a), 702(a)(5), and 1631(d)(1).

How long would these proposed rules be effective?

If we publish these proposed rules as final rules, they will remain in effect for 5 years after the date they become effective, unless we extend them, or revise and issue them again.

Clarity of These Proposed Rules

Executive Order 12866, as supplemented by Executive Order 13563, requires each agency to write all rules in plain language. In addition to your substantive comments on these proposed rules, we invite your comments on how to make them easier to understand. For example:

- Would more, but shorter sections be better?
- Are the requirements in the rules clearly stated?

- Have we organized the material to suit your needs?
- Could we improve clarity by adding more tables, lists, or diagrams?
- What else could we do to make the rules easier to understand?
- Do the rules contain technical language or jargon that is not clear?
- Would a different format make the rules easier to understand, e.g., grouping and order of sections, use of headings, paragraphing?

When will we start to use these rules?

We will not use these rules until we evaluate public comments and publish final rules in the **Federal Register**. All final rules we issue include an effective date. We will continue to use our current rules until that date. If we publish final rules, we will include a summary of those relevant comments we received along with responses and an explanation of how we will apply the new rules.

Regulatory Procedures

Executive Order 12866, as Supplemented by Executive Order 13563

We have consulted with the Office of Management and Budget (OMB) and determined that this NPRM meets the criteria for a significant regulatory action under Executive Order 12866, as supplemented by Executive Order 13563. Therefore, OMB reviewed it.

Regulatory Flexibility Act

We certify that these proposed rules will not have a significant economic impact on a substantial number of small entities because they affect individuals only. Therefore, a regulatory flexibility analysis is not required under the Regulatory Flexibility Act, as amended.

Paperwork Reduction Act

These proposed rules do not create any new or affect any existing collections and, therefore, do not require OMB approval under the Paperwork Reduction Act. (Catalog of Federal Domestic Assistance Program Nos. 96.001, Social Security—Disability Insurance; 96.002, Social Security—Retirement Insurance; 96.004, Social Security—Survivors Insurance; and 96.006, Supplemental Security Income)

List of Subjects in 20 CFR Part 404

Administrative practice and procedure; Blind, Disability benefits; Old-age, survivors, and disability insurance; Reporting and recordkeeping requirements; Social Security.

Michael J. Astrue,

Commissioner of Social Security. For the reasons set out in the preamble, we propose to amend 20 CFR chapter III, part 404, subpart P as set forth below:

**PART 404—FEDERAL OLD-AGE, SURVIVORS AND DISABILITY INSURANCE (1950—)
Subpart P—[Amended]**

1. The authority citation for subpart P of part 404 continues to read as follows:

Authority: Secs. 202, 205(a)–(b) and (d)–(h), 216(i), 221(a), (i), and (j), 222(c), 223, 225, and 702(a)(5) of the Social Security Act (42 U.S.C. 402, 405(a)–(b) and (d)–(h), 416(i), 421(a), (i), and (j), 422(c), 423, 425, and 902(a)(5)); sec. 211(b), Pub. L. 104–193, 110 Stat. 2105, 2189; sec. 202, Pub. L. 108–203, 118

Stat. 509 (42 U.S.C. 902 note).

2. Amend appendix 1 to subpart P of part 404 by:

- a. Revising item 3 of the introductory text before part A;
- b. Revising section 2.00A and sections 2.01 through 2.04 in part A; and
- c. Revising section 102.00A and sections 102.01 through 102.04 in part B.

The revisions read as follows:

APPENDIX 1 TO SUBPART P OF PART 404—LISTING OF IMPAIRMENTS

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3. Special Senses and Speech (2.00 and 102.00): [Insert date 5 years from the effective date of the final rules].

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Part A

* * * * *

2.00 Special Senses and Speech

A. How do we evaluate visual disorders?

1. *What are visual disorders?* Visual disorders are abnormalities of the eye, the optic nerve, the optic tracts, or the brain that may cause a loss of visual acuity or visual fields. A loss of visual acuity limits your ability to distinguish detail, read, or do fine work. A loss of visual fields limits your ability to perceive visual stimuli in the peripheral extent of vision.

2. *How do we define statutory blindness?* Statutory blindness is blindness as defined in sections 216(i)(1) and 1614(a)(2) of the Social Security Act (Act).

a. The Act defines blindness as central visual acuity of 20/200 or less in the better eye with the use of a correcting lens. We use your best-corrected central visual acuity for distance in the better eye when we determine if this definition is met. (For visual acuity testing requirements, see 2.00A5.)

b. The Act also provides that an eye that has a visual field limitation such that the widest diameter of the visual field subtends an angle no greater than 20 degrees is considered as having a central visual acuity of 20/200 or less. (For visual field testing requirements, see 2.00A6.)

c. You have statutory blindness only if your visual disorder meets the criteria of 2.02 or 2.03A. In order to find that you have statutory blindness under the law for a period of disability and for payment of disability insurance benefits, your blindness under 2.02 or 2.03A must also meet the duration requirement (see §§ 404.1509 and 404.1581). You do not have statutory blindness if your visual disorder medically equals the criteria of 2.02 or 2.03A or meets or medically equals the criteria of 2.03B, 2.03C, 2.04A, or 2.04B because your disability is based on criteria other than those in the statutory definition of blindness. If your visual disorder medically equals the criteria of 2.02 or 2.03A or meets or medically equals the criteria of 2.03B, 2.03C, 2.04A, or 2.04B, we will find that you are under a disability if your visual disorder also meets the duration requirement (see §§ 404.1509 and 416.909 of this chapter).

3. *What evidence do we need to establish statutory blindness under title XVI?* To establish that you have statutory blindness under title XVI, we need evidence showing only that your central visual acuity

in your better eye or your visual field in your better eye meets the criteria in 2.00A2, provided that those measurements are consistent with the other evidence in your case record. We do not need documentation of the cause of your blindness. Also, there is no duration requirement for statutory blindness under title XVI (see §§ 416.981 and 416.983 of this chapter).

4. *What evidence do we need to evaluate visual disorders, including those that result in statutory blindness under title II?* To evaluate your visual disorder, we usually need a report of an eye examination that includes measurements of your bestcorrected central visual acuity (see 2.00A5) or the extent of your visual fields (see 2.00A6), as appropriate. If you have visual acuity or visual field loss, we need documentation of the cause of the loss. A standard eye examination will usually indicate the cause of any visual acuity loss.

An eye examination can also indicate the cause of some types of visual field deficits.

Some disorders, such as cortical visual disorders, may result in abnormalities that do not appear on a standard eye examination. If the eye examination does not indicate the cause of your vision loss, we will request the information the physician or optometrist used to establish the presence of your visual disorder. If your visual disorder does not satisfy the criteria in 2.02, 2.03, or 2.04, we will request a description of how your visual disorder affects your ability to function.

5. *How do we measure your best-corrected central visual acuity?*

a. *Visual acuity testing.* When we need to measure your best-corrected central visual acuity, which is your optimal visual acuity attainable with the use of a corrective lens, we use visual acuity testing for distance that was carried out using Snellen methodology or any other testing methodology that is comparable to Snellen methodology.

(i) Your best-corrected central visual acuity for distance is usually measured by determining what you can see from 20 feet.

If your visual acuity is measured for a distance other than 20 feet, we will convert it to a 20-foot measurement. For example, if your visual acuity is measured at 10 feet and is reported as 10/40, we will convert this measurement to 20/80.

(ii) A visual acuity recorded as CF (counts fingers), HM (hand motion only), LP or LPO (light perception or light perception only), or NLP (no light perception) indicates that no optical correction will improve your visual acuity. If your central visual acuity in an eye is recorded as CF, HM, LP or LPO, or NLP, we will determine that your best-corrected central visual acuity is 20/200 or less in that eye.

(iii) We will not use the results of pinhole testing or automated refraction acuity to determine your best-corrected central visual acuity. These tests provide an estimate of potential visual acuity but not an actual measurement of your best-corrected central visual acuity.

b. *Other test charts.* Most test charts that use Snellen methodology do not have lines that measure visual acuity between 20/100 and 20/200. Some test charts, such as the Bailey-Lovie or the Early Treatment Diabetic Retinopathy Study (ETDRS) used mostly in research settings, have such lines. If your visual acuity is measured with one of these charts, and you cannot read any of the letters on the 20/100 line, we will determine that you have statutory blindness based on a visual acuity of 20/200 or less. For example,

if your best-corrected central visual acuity for distance in the better eye is 20/160 using an ETDRS chart, we will find that you have statutory blindness. Regardless of the type of test chart used, you do not have statutory blindness if you can read at least one letter on the 20/100 line. For example, if your best-corrected central visual acuity for distance in the better eye is 20/125+1 using an ETDRS chart, we will find that you do not have statutory blindness because you are able to read one letter on the 20/100 line.

c. *Testing using a specialized lens.* In some instances, you may perform visual acuity testing using a specialized lens; for example, a contact lens. We will use the visual acuity measurements obtained with a specialized lens only if you have demonstrated the ability to use the specialized lens on a sustained basis. We will not use visual acuity measurements obtained with telescopic lenses because they significantly reduce the visual field.

d. *Cycloplegic refraction.* Cycloplegic refraction, which measures your visual acuity in the absence of accommodation (focusing ability) after the eye has been dilated, is not part of a routine eye examination because it is not needed to determine your best-corrected central visual acuity. If your case record contains the results of cycloplegic refraction, we may use the results to determine your best-corrected central visual acuity. We will not purchase cycloplegic refraction.

e. *Visual evoked response (VER) testing.* VER testing measures your response to visual events and can often detect dysfunction that is undetectable through other types of examinations. If you have an absent response to VER testing in your better eye, we will determine that your best-corrected central visual acuity is 20/200 or less in that eye and that your visual acuity loss satisfies the criterion in 2.02, when these test results are consistent with the other evidence in your case record. If you have a positive response to VER testing in an eye, we will not use that result to determine your best-corrected central visual acuity in that eye.

6. *How do we measure your visual fields?*

a. *General.* We generally need visual field testing when you have a visual disorder that could result in visual field loss, such as glaucoma, retinitis pigmentosa, or optic neuropathy, or when you display behaviors that suggest a visual field loss. When we need to measure the extent of your visual field loss, we use visual field testing (also referred to as perimetry) carried out using automated static threshold perimetry performed on an acceptable perimeter (for perimeter requirements, see 2.00A8).

b. *Automated static threshold perimetry requirements.*

(i) The test must use a white size III Goldmann stimulus and a 31.5 apostilb (asb) white background (or a 10 candela per square meter (cd/m²) white background). The stimuli test locations must be no more than 6 degrees apart horizontally or vertically. Measurements must be reported on standard charts and include a description of the size and intensity of the test stimulus.

(ii) We measure the extent of your visual field loss by determining the portion of the visual field in which you can see a white III4e stimulus. The “III” refers to the standard Goldmann test stimulus size III (4 mm²), and the “4e” refers to the standard Goldmann intensity filter (0 dB attenuation, which allows presentation of the maximum luminance) used to determine the intensity of the stimulus.

(iii) In automated static threshold perimetry, the intensity of the stimulus varies. The intensity of the stimulus is expressed in decibels (dB). A perimeter's maximum stimulus luminance is usually assigned the value 0 dB. We need to determine the dB level that corresponds to a 4e intensity for the particular perimeter being used. We will then use the dB printout to determine which points you see at a 4e intensity level (a "seeing point"). For example:

A. When the maximum stimulus luminance (0 dB stimulus) on an acceptable perimeter is 10,000 asb, a 10 dB stimulus is equivalent to a 4e stimulus. Any point you see at 10 dB or greater is a seeing point.

B. When the maximum stimulus luminance (0 dB stimulus) on an acceptable perimeter is 4,000 asb, a 6 dB stimulus is equivalent to a 4e stimulus. Any point you see at 6 dB or greater is a seeing point.

c. *Evaluation under 2.03A.* To determine statutory blindness based on visual field loss in your better eye (2.03A), we need the results of a visual field test that measures the central 24 to 30 degrees of your visual field; that is, the area measuring 24 to 30 degrees from the point of fixation. Acceptable tests include the Humphrey Field Analyzer (HFA) 30-2, HFA 24-2, and Octopus 32.

d. *Evaluation under 2.03B.* To determine whether your visual field loss meets listing 2.03B, we use the mean deviation or defect (MD) from acceptable automated static threshold perimetry that measures the central 30 degrees of the visual field. MD is the average sensitivity deviation from normal values for all measured visual field locations within the central 30 degrees of the field. When using results from HFA tests, which report the MD as a negative number, we use the absolute value of the MD to determine whether your visual field loss meets listing 2.03B. We cannot use tests that do not measure the central 30 degrees of the visual field, such as the HFA 24-2, to determine if your impairment meets or medically equals 2.03B.

e. *Other types of perimetry.* If your case record contains visual field measurements obtained using manual or automated kinetic perimetry, such as Goldmann perimetry or the HFA "SSA Test Kinetic," we can generally use these results if the kinetic test was performed using a white III4e stimulus projected on a white 31.5 asb (10 cd/m²) background. Automated kinetic perimetry, such as the HFA "SSA Test Kinetic," does not detect limitations in the central visual field because testing along a meridian stops when you see the stimulus. If your visual disorder has progressed to the point at which it is likely to result in a significant limitation in the central visual field, such as a scotoma (see 2.00A6h), we will not use automated kinetic perimetry to determine the extent of your visual field loss. Instead, we will determine the extent of your visual field loss using automated static threshold perimetry or manual kinetic perimetry.

f. *Screening tests.* We will not use the results of visual field screening tests, such as confrontation tests, tangent screen tests, or automated static screening tests, to determine that your impairment meets or medically equals a listing or to evaluate your residual functional capacity. We can consider normal results from visual field screening tests to determine whether your visual disorder is severe when these test results are consistent with the other evidence in your case record. (See §§ 404.1520(c), 404.1521, 416.920(c), and 416.921 of this chapter.) We will not consider normal test results to be consistent with the other evidence if the clinical findings indicate that your visual disorder has progressed to the point

that it is likely to cause visual field loss, or you have a history of an operative procedure for retinal detachment.

g. *Use of corrective lenses.* You must not wear eyeglasses during visual field testing because they limit your field of vision. You may wear contact lenses or perimetric lenses to correct your visual acuity during the visual field test to obtain the most accurate visual field measurements. For this single purpose, you do not need to demonstrate that you have the ability to use the contact or perimetric lenses on a sustained basis.

h. *Scotoma.* A scotoma is a non-seeing area (also referred to as a blind spot) in the visual field surrounded by a seeing area. When we measure your visual field, we subtract the length of any scotoma, other than the normal blind spot, from the overall length of any diameter on which it falls.

7. *How do we determine your visual acuity efficiency, visual field efficiency, and visual efficiency?*

a. *General.* *Visual efficiency* is the combination of your *visual acuity efficiency* and your *visual field efficiency* expressed as a value or as a percentage.

b. *Visual acuity efficiency.* Visual acuity efficiency is a value or a percentage that corresponds to the best-corrected central visual acuity for distance in your better eye. See Table 1.

TABLE 1

Snellen best-corrected central visual acuity for distance		Visual acuity efficiency value (2.04A)	Visual acuity efficiency percentage (2.04B)
English	Metric		
20/16	6/5	0.00	100
20/20	6/6	0.00	100
20/25	6/7.5	0.10	95
20/30	6/9	0.18	90
20/40	6/12	0.30	85
20/50	6/15	0.40	75
20/60	6/18	0.48	70
20/70	6/21	0.54	65
20/80	6/24	0.60	60
20/100	6/30	0.70	50

c. *Visual field efficiency.* Visual field efficiency is a value or a percentage that corresponds to the visual field in your better eye. Under 2.03C, we require kinetic perimetry to determine your visual field efficiency percentage. (A visual field efficiency percentage of 20, determined using kinetic perimetry, is comparable to an MD of 22, determined using automated static threshold perimetry.)

(i) *Value determined by automated static threshold perimetry.* Using the MD from acceptable automated static threshold perimetry, we calculate the visual field efficiency value by dividing the absolute value of the MD by 22. For example, if your MD on an HFA 30–2 is –16, your visual field efficiency value is:

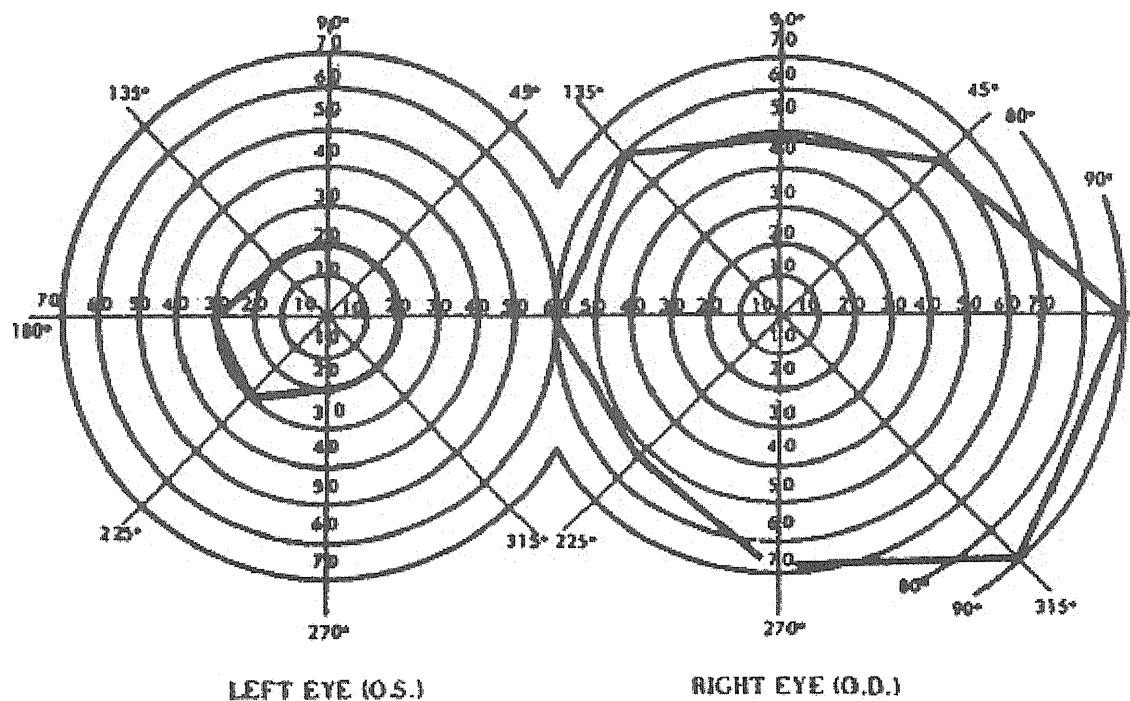
$| -16 | | 22 = 0.73.$

(ii) *Percentage determined by kinetic perimetry.* Using kinetic perimetry, we calculate the visual field efficiency percentage by adding the number of degrees you see along the eight principal meridians found on a visual field chart (0, 45, 90, 135, 180, 225, 270, and 315) in your better eye and dividing by 5. For example, in Figure 1:

A. The diagram of the left eye illustrates a visual field, as measured with a III4e stimulus, contracted to 30 degrees in two meridians (180 and 225) and to 20 degrees in the remaining six meridians. The visual efficiency percentage of this field is: $((2 \cdot 30) + (6 \times 20)) \div 5 = 36$ percent.

B. The diagram of the right eye illustrates the extent of a normal visual field as measured with a III4e stimulus. The sum of the eight principal meridians of this field is 500 degrees. The visual efficiency percentage of this field is $500 \div 5 = 100$ percent.

Figure 1:



d. *Visual efficiency.* (i) *Determined by automated static threshold perimetry (2.04A).* Under 2.04A, we calculate the visual efficiency value by adding your visual acuity efficiency value (see 2.00A7b) and your visual field efficiency value (see 2.00A7c(i)). For example, if your visual acuity efficiency value is 0.48 and your visual field efficiency value is 0.73, your visual efficiency value is: $0.48 + 0.73 = 1.21$.

(ii) *Determined by kinetic perimetry (2.04B).* Under 2.04B, we calculate the visual efficiency percentage by multiplying your visual acuity efficiency percentage (see 2.00A7b) by your visual field efficiency percentage (see 2.00A7c(ii)) and dividing by 100. For example, if your visual acuity efficiency percentage is 75 and your visual field efficiency percentage is 36, your visual efficiency percentage is: $(75 \times 36) \div 100 = 27$ percent.

8. *What are our requirements for an acceptable perimeter?* We will use results from automated static

threshold perimetry performed on a perimeter that:

- a. Uses optical projection to generate the test stimuli.
- b. Has an internal normative database for automatically comparing your performance with that of the general population.
- c. Has a statistical analysis package that is able to calculate visual field indices, particularly mean deviation or mean defect.
- d. Demonstrates the ability to correctly detect visual field loss and correctly identify normal visual fields.
- e. Demonstrates good test-retest reliability.
- f. Has undergone clinical validation studies by three or more independent laboratories with results published in peer-reviewed ophthalmic journals.

* * * * *

2.01 Category of Impairments, Special Senses and Speech

2.02 *Loss of central visual acuity.*

Remaining vision in the better eye after best correction is 20/200 or less.

2.03 *Contraction of the visual field in the better eye, with:*

A. The widest diameter subtending an angle around the point of fixation no greater than 20 degrees.

OR

B. An MD of 22 decibels or greater, determined by automated static threshold perimetry that measures the central 30 degrees of the visual field (see 2.00A6d).

OR

C. A visual field efficiency of 20 percent or less, determined by kinetic perimetry (see 2.00A7c).

2.04 *Loss of visual efficiency in the better eye, with:*

A. A visual efficiency value of 1.00 or greater after best correction (see 2.00A7d(i)).

OR

B. A visual efficiency percentage of 20 or less after best correction (see 2.00A7d(ii)).

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Part B

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102.00 Special Senses and Speech

A. *How do we evaluate visual disorders?*

1. *What are visual disorders?* Visual disorders are abnormalities of the eye, the optic nerve, the optic tracts, or the brain that may cause a loss of visual acuity or visual fields. A loss of visual acuity limits your ability to distinguish detail, read, do fine work, or perform other age-appropriate activities. A loss of visual fields limits your ability to perceive visual stimuli in the peripheral extent of vision.

2. *How do we define statutory blindness?* Statutory blindness is blindness as defined in sections 216(i)(1) and 1614(a)(2) of the Social Security Act (Act).

a. The Act defines blindness as central visual acuity of 20/200 or less in the better eye with the use of a correcting lens. We use your best-corrected central visual acuity for distance in the better eye when we

determine if this definition is met. (For visual acuity testing requirements, see 102.00A5.)

b. The Act also provides that an eye that has a visual field limitation such that the widest diameter of the visual field subtends an angle no greater than 20 degrees is considered as having a central visual acuity of 20/200 or less. (For visual field testing requirements, see 102.00A6.)

c. You have statutory blindness only if your visual disorder meets the criteria of 102.02A, 102.02B, or 102.03A. You do not have statutory blindness if your visual disorder medically equals the criteria of 102.02A, 102.02B, or 102.03A or meets or medically equals the criteria of 102.03B, 102.03C, 102.04A, or 102.04B because your disability is based on criteria other than those in the statutory definition of blindness. If your visual disorder medically equals the criteria of 102.02A, 102.02B, or 102.03A or meets or medically equals the criteria of 102.03B, 102.03C, 102.04A, or 102.04B, we will find that you are under a disability if your visual disorder also meets the duration requirement (see § 416.909 of this chapter).

3. *What evidence do we need to establish statutory blindness under title XVI?* To establish that you have statutory blindness under title XVI, we need evidence showing only that your central visual acuity in your better eye or your visual field in your better eye meets the criteria in 102.00A2, provided that those measurements are consistent with the other evidence in your case record. We do not need documentation of the cause of your blindness. Also, there is no duration requirement for statutory blindness under title XVI (see §§ 416.981 and 416.983 of this chapter).

4. *What evidence do we need to evaluate visual disorders, including those that result in statutory blindness under title II?* To evaluate your visual disorder, we usually need a report of an eye examination that includes measurements of your best-corrected central visual acuity (see 102.00A5) or the extent of your visual fields (see 102.00A6), as appropriate. If you have visual acuity or visual field loss, we need documentation of the cause of the loss. A standard eye examination will usually indicate the cause of any visual acuity loss. An eye examination can also indicate the cause of some types of visual field deficits. Some disorders, such as cortical visual disorders, may result in abnormalities that do not appear on a standard eye examination. If the eye examination does not indicate the cause of your vision loss, we will request the information the physician or optometrist used to establish the presence of your visual disorder. If your visual disorder does not satisfy the criteria in 102.02, 102.03, or 102.04, we will request a description of how your visual disorder affects your ability to function.

5. *How do we measure your best-corrected central visual acuity?*

a. *Visual acuity testing.* When we need to measure your best-corrected central visual acuity, which is your optimal visual acuity attainable with the use of a corrective lens, we use visual acuity testing for distance that was carried out using Snellen methodology or any other testing methodology that is comparable to Snellen methodology.

(i) Your best-corrected central visual acuity for distance is usually measured by determining what you can see from 20 feet. If your visual acuity is measured for a distance other than 20 feet, we will convert it to a 20-foot measurement. For example, if your visual acuity is measured at 10 feet and is reported as 10/40, we will convert this measurement to 20/80.

(ii) A visual acuity recorded as CF (counts fingers), HM (hand motion only), LP or LPO (light perception or light perception only), or NLP (no light perception) indicates that no optical correction will improve your visual acuity. If your central visual acuity in an eye is recorded as CF, HM, LP or LPO, or NLP, we will determine that your best-corrected central visual acuity is 20/200 or less in that eye.

(iii) We will not use the results of pinhole testing or automated refraction acuity to determine your best-corrected central visual acuity. These tests provide an estimate of potential visual acuity but not an actual measurement of your best-corrected central visual acuity.

(iv) Very young children, such as infants and toddlers, cannot participate in testing using Snellen methodology or other comparable testing. If you are unable to participate in testing using Snellen methodology or other comparable testing, we will consider clinical findings of your fixation and visual-following behavior. If both these behaviors are absent, we will consider the anatomical findings or the results of neuroimaging, electroretinogram, or visual evoked response (VER) testing when this testing has been performed.

b. *Other test charts.*

(i) Children between the ages of 3 and 5 often cannot identify the letters on a Snellen or other letter test chart. Specialists with expertise in assessment of childhood vision use alternate methods for measuring visual acuity in young children. We consider alternate methods, for example, the Landolt C test or the tumbling-E test, which are used to evaluate young children who are unable to participate in testing using Snellen methodology, to be comparable to testing using Snellen methodology.

(ii) Most test charts that use Snellen methodology do not have lines that measure visual acuity between 20/100 and 20/200. Some test charts, such as the Bailey-Lovie or the Early Treatment Diabetic Retinopathy Study (ETDRS) used mostly in research settings, have such lines. If your visual acuity is measured with one of these charts, and you cannot read any of the letters on the 20/100 line, we will determine that you have statutory blindness based on a visual acuity of 20/200 or less. For example, if your bestcorrected central visual acuity for distance in the better eye is 20/160 using an ETDRS chart, we will find that you have statutory blindness. Regardless of the type of test chart used, you do not have statutory blindness if you can read at least one letter on the 20/100 line. For example, if your best-corrected central visual acuity for distance in the better eye is 20/125+1 using an ETDRS chart, we will find that you do not have statutory blindness because you are able to read one letter on the 20/100 line.

c. *Testing using a specialized lens.* In some instances, you may perform visual acuity testing using a specialized lens; for example, a contact lens. We will use the visual acuity measurements obtained with a specialized lens only if you have demonstrated the ability to use the specialized lens on a sustained basis. We will not use visual acuity measurements obtained with telescopic lenses because they significantly reduce the visual field.

d. *Cycloplegic refraction.* Cycloplegic refraction, which measures your visual acuity in the absence of accommodation (focusing ability) after the eye has been dilated, is not part of a routine eye examination because it is not needed to determine your bestcorrected central visual acuity. It can be useful for

determining refractive error and visual acuity in some children. If your case record contains the results of cycloplegic refraction, we may use the results to determine your best-corrected central visual acuity. We will not purchase cycloplegic refraction.

e. *VER testing.* VER testing measures your response to visual events and can often detect dysfunction that is undetectable through other types of examinations. If you have an absent response to VER testing in your better eye, we will determine that your best-corrected central visual acuity is 20/200 or less in that eye and that your visual acuity loss satisfies the criterion in 102.02A or 102.02B4, as appropriate, when these test results are consistent with the other evidence in your case record. If you have a positive response to VER testing in an eye, we will not use that result to determine your best-corrected central visual acuity in that eye.

6. *How do we measure your visual fields?*

a. *General.* We generally need visual field testing when you have a visual disorder that could result in visual field loss, such as glaucoma, retinitis pigmentosa, or optic neuropathy, or when you display behaviors that suggest a visual field loss. When we need to measure the extent of your visual field loss, we use visual field testing (also referred to as perimetry) carried out using automated static threshold perimetry performed on an acceptable perimeter (for perimeter requirements, see 102.00A8).

b. *Automated static threshold perimetry requirements.*

(i) The test must use a white size III Goldmann stimulus and a 31.5 apostilb (asb) white background (or a 10 candela per square meter (cd/m²) white background). The stimuli test locations must be no more than 6 degrees apart horizontally or vertically. Measurements must be reported on standard charts and include a description of the size and intensity of the test stimulus.

(ii) We measure the extent of your visual field loss by determining the portion of the visual field in which you can see a white III4e stimulus. The “III” refers to the standard Goldmann test stimulus size III (4 mm²), and the “4e” refers to the standard Goldmann intensity filter (0 dB attenuation, which allows presentation of the maximum luminance) used to determine the intensity of the stimulus.

(iii) In automated static threshold perimetry, the intensity of the stimulus varies. The intensity of the stimulus is expressed in decibels (dB). A perimeter’s maximum stimulus luminance is usually assigned the value 0 dB. We need to determine the dB level that corresponds to a 4e intensity for the particular perimeter being used. We will then use the dB printout to determine which points you see at a 4e intensity level (a “seeing point”). For example:

A. When the maximum stimulus luminance (0 dB stimulus) on an acceptable perimeter is 10,000 asb, a 10 dB stimulus is equivalent to a 4e stimulus. Any point you see at 10 dB or greater is a seeing point.

B. When the maximum stimulus luminance (0 dB stimulus) on an acceptable perimeter is 4,000 asb, a 6 dB stimulus is equivalent to a 4e stimulus. Any point you see at 6 dB or greater is a seeing point.

c. *Evaluation under 102.03A.* To determine statutory blindness based on visual field loss in your better eye (102.03A), we need the results of a visual field test that measures the central 24 to 30 degrees of your visual field; that is, the area measuring 24 to 30 degrees from the point of fixation. Acceptable tests include the Humphrey Field Analyzer (HFA) 30–2, HFA 24–2, and Octopus 32. d. *Evaluation under*

102.03B. To determine whether your visual field loss meets listing 102.03B, we use the mean deviation or defect (MD) from acceptable automated static threshold perimetry that measures the central 30 degrees of the visual field. MD is the average sensitivity deviation from normal values for all measured visual field locations within the central 30 degrees of the field. When using results from HFA tests, which report the MD as a negative number, we use the absolute value of the MD to determine whether your visual field loss meets listing 102.03B. We cannot use tests that do not measure the central 30 degrees of the visual field, such as the HFA 24-2, to determine if your impairment meets or medically equals 102.03B.

e. Other types of perimetry. If your case record contains visual field measurements obtained using manual or automated kinetic perimetry, such as Goldmann perimetry or the HFA “SSA Test Kinetic,” we can generally use these results if the kinetic test was performed using a white III4e stimulus projected on a white 31.5 asb (10 cd/m²) background. Automated kinetic perimetry, such as the HFA “SSA Test Kinetic,” does not detect limitations in the central visual field because testing along a meridian stops when you see the stimulus. If your visual disorder has progressed to the point at which it is likely to result in a significant limitation in the central visual field, such as a scotoma (see 102.00A6h), we will not use automated kinetic perimetry to determine the extent of your visual field loss. Instead, we will determine the extent of your visual field loss using automated static threshold perimetry or manual kinetic perimetry.

f. Screening tests. We will not use the results of visual field screening tests, such as confrontation tests, tangent screen tests, or automated static screening tests, to determine that your impairment meets or medically equals a listing, or functionally equals the listings. We can consider normal results from visual field screening tests to determine whether your visual disorder is severe when these test results are consistent with the other evidence in your case record. (See § 416.924(c) of this chapter.) We will not consider normal test results to be consistent with the other evidence if the clinical findings indicate that your visual disorder has progressed to the point that it is likely to cause visual field loss, or you have a history of an operative procedure for retinal detachment.

g. Use of corrective lenses. You must not wear eyeglasses during visual field testing because they limit your field of vision. You may wear contact lenses or perimetric lenses to correct your visual acuity during the visual field test to obtain the most accurate visual field measurements. For this single purpose, you do not need to demonstrate that you have the ability to use the contact or perimetric lenses on a sustained basis.

h. Scotoma. A scotoma is a non-seeing area (also referred to as a blind spot) in the visual field surrounded by a seeing area. When we measure your visual field, we subtract the length of any scotoma, other than the normal blind spot, from the overall length of any diameter on which it falls.

7. How do we determine your visual acuity efficiency, visual field efficiency, and visual efficiency?

a. General. *Visual efficiency* is the combination of your *visual acuity efficiency* and your *visual field efficiency* expressed as a value or as a percentage.

b. Visual acuity efficiency. Visual acuity efficiency is a value or a percentage that corresponds to the best-corrected central visual acuity for distance in your better eye. See Table 1.

TABLE 1

Snellen best-corrected central visual acuity for distance		Visual acuity efficiency value (2.04A)	Visual acuity efficiency percentage (2.04B)
English	Metric		
20/16	6/5	0.00	100
20/20	6/6	0.00	100
20/25	6/7.5	0.10	95
20/30	6/9	0.18	90
20/40	6/12	0.30	85
20/50	6/15	0.40	75
20/60	6/18	0.48	70
20/70	6/21	0.54	65
20/80	6/24	0.60	60
20/100	6/30	0.70	50

c. *Visual field efficiency.* Visual field efficiency is a value or a percentage that corresponds to the visual field in your better eye. Under 102.03C, we require kinetic perimetry to determine your visual field efficiency percentage. (A visual field efficiency percentage of 20, determined using kinetic perimetry, is comparable to an MD of 22, determined using automated static threshold perimetry.)

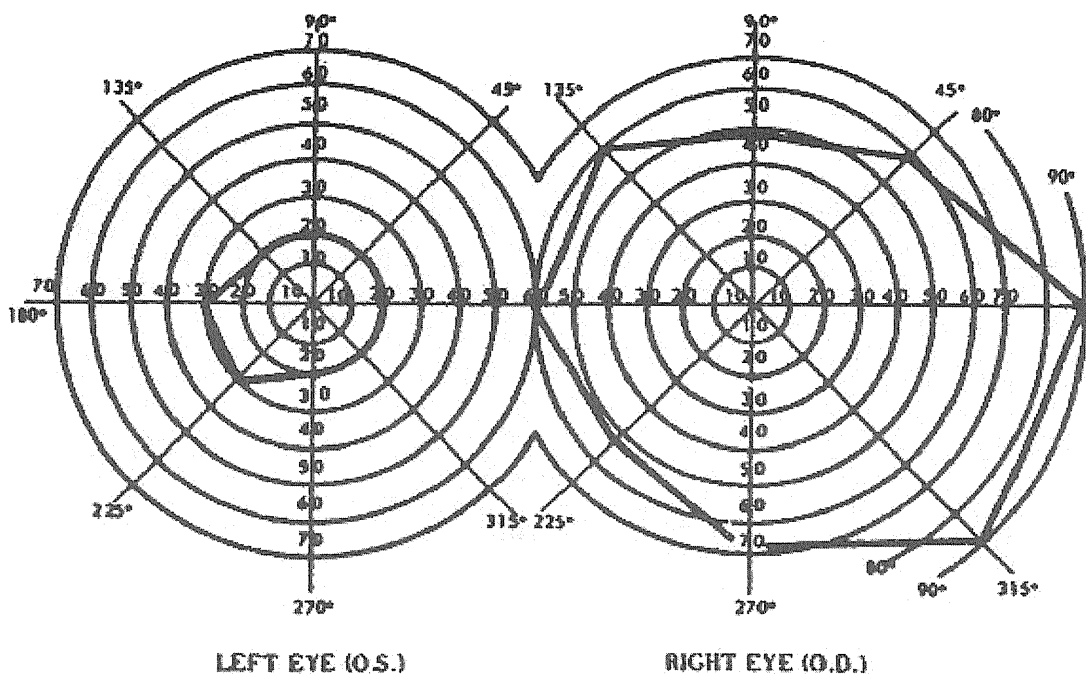
(i) *Value determined by automated static threshold perimetry.* Using the MD from acceptable automated static threshold perimetry, we calculate the visual field efficiency value by dividing the absolute value of the MD by 22. For example, if your MD on an HFA 30–2 is –16, your visual field efficiency value is:
 $| -16 | \div 22 = 0.73$.

(ii) *Percentage determined by kinetic perimetry.* Using kinetic perimetry, we calculate the visual field efficiency percentage by adding the number of degrees you see along the eight principal meridians found on a visual field chart (0, 45, 90, 135, 180, 225, 270, and 315) in your better eye and dividing by 5. For example, in Figure 1:

A. The diagram of the left eye illustrates a visual field, as measured with a III4e stimulus, contracted to 30 degrees in two meridians (180 and 225) and to 20 degrees in the remaining six meridians. The visual efficiency percentage of this field is: $((2 \cdot 30) + (6 \cdot 20)) \div 5 = 36$ percent.

B. The diagram of the right eye illustrates the extent of a normal visual field as measured with a III4e stimulus. The sum of the eight principal meridians of this field is 500 degrees. The visual efficiency percentage of this field is $500 \div 5 = 100$ percent.

Figure 1:



d. *Visual efficiency.*

(i) *Determined by automated static threshold perimetry (102.04A).* Under 102.04A, we calculate the visual efficiency value by adding your visual acuity efficiency value (see 102.00A7b) and your visual field efficiency value (see 102.00A7c(i)). For example, if your visual acuity efficiency value is 0.48 and your visual field efficiency value is 0.73, your visual efficiency value is: $0.48 + 0.73 = 1.21$.

(ii) *Determined by kinetic perimetry (102.04B).* Under 102.04B, we calculate the visual efficiency percentage by multiplying your visual acuity efficiency percentage (see 102.00A7b) by your visual field efficiency percentage (see 102.00A7c(ii)) and dividing by 100. For example, if your visual acuity efficiency percentage is 75 and your visual field efficiency percentage is 36, your visual efficiency percentage is: $(75 \times 36) \div 100 = 27$ percent.

8. *What are our requirements for an acceptable perimeter?* We will use results from automated static threshold perimetry performed on a perimeter that:

- a. Uses optical projection to generate the test stimuli.
- b. Has an internal normative database for automatically comparing your performance with that of the general population.
- c. Has a statistical analysis package that is able to calculate visual field indices, particularly mean deviation or mean defect.
- d. Demonstrates the ability to correctly detect visual field loss and correctly identify normal visual fields.
- e. Demonstrates good test-retest reliability.
- f. Has undergone clinical validation studies by three or more independent laboratories with results published in peer-reviewed ophthalmic journals.

102.01 *Category of Impairments, Special Senses and Speech*

102.02 *Loss of central visual acuity.*

A. Remaining vision in the better eye after best correction is 20/200 or less.

OR

B. An inability to participate in visual acuity testing using Snellen methodology or other comparable testing, clinical findings that fixation and visual-following behavior are absent in the better eye, and one of the following:

1. Abnormal anatomical findings indicating a visual acuity of 20/200 or less in the better eye (such as the presence of Stage III or worse retinopathy of prematurity despite surgery, hypoplasia of the optic nerve, albinism with macular aplasia, or bilateral optic atrophy); or
2. Abnormal neuroimaging documenting damage to the cerebral cortex which would be expected to prevent the development of a visual acuity better than 20/200 in the better eye (such as neuroimaging showing bilateral encephalomyelitis or bilateral encephalomalacia); or
3. Abnormal electroretinogram documenting the presence of Leber's congenital amaurosis or achromatopsia in the better eye; or
4. An absent response to VER testing in the better eye.

102.03 *Contraction of the visual field in the better eye, with:*

A. The widest diameter subtending an angle around the point of fixation no greater than 20 degrees.

OR

B. An MD of 22 decibels or greater, determined by automated static threshold perimetry that measures the central 30 degrees of the visual field (see 102.00A6d).

OR

C. A visual field efficiency of 20 percent or less, determined by kinetic perimetry (see 102.00A7c).

102.04 *Loss of visual efficiency in the better eye, with:*

A. A visual efficiency value of 1.00 or greater after best correction (see 102.00A7d(i)).

OR

B. A visual efficiency percentage of 20 or less after best correction (see 102.00A7d(ii)).

* * * * *

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Disability Evaluation Under Social Security(Blue Book– August 2010)

2.00 SPECIAL SENSES AND SPEECH – Adult

A. How do we evaluate visual disorders?

1. What are visual disorders? Visual disorders are abnormalities of the eye, the optic nerve, the optic tracts, or the brain that may cause a loss of visual acuity or visual fields. A loss of visual acuity limits your ability to distinguish detail, read, or do fine work. A loss of visual fields limits your ability to perceive visual stimuli in the peripheral extent of vision.

2. How do we define statutory blindness? Statutory blindness is blindness as defined in sections 216(i)(1) and 1614(a)(2) of the Social Security Act (the Act). The Act defines blindness as visual acuity of 20/200 or less in the better eye with the use of a correcting lens. We use your best-corrected visual acuity for distance in the better eye when we determine if this definition is met. The Act also provides that an eye that has a visual field limitation such that the widest diameter of the visual field subtends an angle no greater than 20 degrees is considered as having visual acuity of 20/200 or less. You have statutory blindness only if your visual disorder meets the criteria of 2.02 or 2.03A. You do not have statutory blindness if your visual disorder medically equals the criteria of 2.02 or 2.03A, or if it meets or medically equals 2.03B, 2.03C, or 2.04. If your visual disorder medically equals the criteria of 2.02 or 2.03A, or if it meets or medically equals 2.03B, 2.03C, or 2.04, we will find that you have a disability if your visual disorder also meets the duration requirement.

3. What evidence do we need to establish statutory blindness under title XVI? For title XVI, the only evidence we need to establish statutory blindness is evidence showing that your visual acuity in your better eye or your visual field in your better eye meets the criteria in 2.00A2, provided that those measurements are consistent with the other evidence in your case record. We do not need to document the cause of your blindness. Also, there is no duration requirement for statutory blindness under title XVI (see § 416.981 and 416.983).

4. What evidence do we need to evaluate visual disorders, including those that result in statutory blindness under title II?

a. To evaluate your visual disorder, we usually need a report of an eye examination that includes measurements of the best-corrected visual acuity or the extent of the visual fields, as appropriate. If there is a loss of visual acuity or visual fields, the cause of the loss must be documented. A standard