

# Disability Evaluation Under Social Security

## \*2.00 Special Senses And Speech - Blindness

### 2.00A. 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. 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.

**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 ΣΣ416.981 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 [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. A standard 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 standard eye examination does not indicate the cause of your vision loss, we will request the information 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 best-corrected visual acuity?**

a. Visual acuity testing. When we need to measure your best-corrected central visual acuity (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, such as 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.

d. Cycloplegic refraction is an examination of the eye performed after administering cycloplegic eye drops capable of relaxing the ability of the pupil to become smaller and temporarily paralyzing the focusing muscles. 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 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 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 [2.00A9](#).)

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/m<sup>2</sup>) 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 mm<sup>2</sup>), and the "4e" refers to the standard Goldmann intensity filter (0 decibel (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. When the maximum stimulus luminance (0 dB stimulus) on an acceptable perimeter is 1,000 asb, a 0 dB stimulus is equivalent to a 4e stimulus. Any point you see at 0 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. 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 the evidence in your case 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/m<sup>2</sup>) 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  $\Sigma\Sigma$ 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 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 lenses on a sustained basis.

h. Scotoma. A scotoma is a field defect or non-seeing area (also referred to as a “blind spot”) in the visual field surrounded by a normal field or 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 calculate visual efficiency?**

a. General. Visual efficiency, a calculated value of your remaining visual function, is the combination of your visual acuity efficiency and your visual field efficiency expressed as a percentage.

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

Table 1 - Visual Acuity Efficiency

Snellen best-corrected central visual acuity for distance		Visual acuity efficiency (%) (2.04A)
English	Metric	
20/16	6/5	100
20/20	6/6	100
20/25	6/7.5	95
20/30	6/9	90
20/40	6/12	85
20/50	6/15	75
20/60	6/18	70
20/70	6/21	65
20/80	6/24	60
20/100	6/30	50

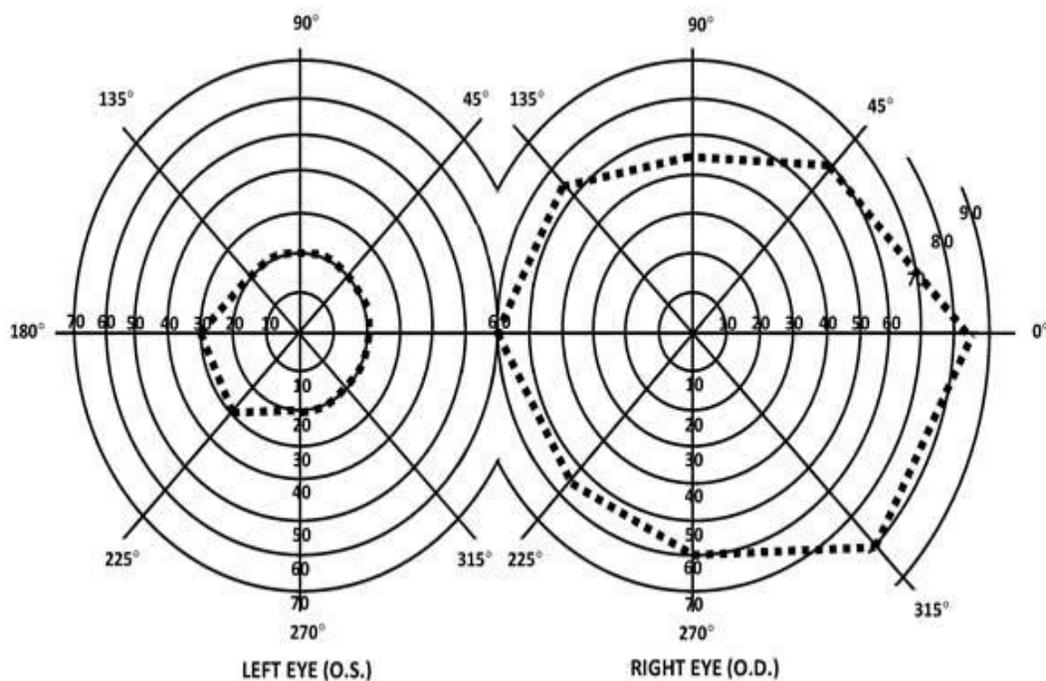
c. Visual field efficiency. Visual field efficiency is a percentage that corresponds to the visual field in your better eye. Under [2.03C](#), we require kinetic perimetry to determine your visual field efficiency percentage. We calculate the visual field efficiency percentage

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:  $((2 \times 30) + (6 \times 20)) / 5 = 36$  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  $500 / 5 = 100$  percent.

Figure 1:



d. Visual efficiency. Under [2.04A](#), 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](#)) 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:  $(75 \times 36) / 100 = 27$  percent.

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**8. How do we determine your visual acuity impairment value, visual field impairment value, and visual impairment value?**

a. General. Visual impairment value, a calculated value of your loss of visual function, is the combination of your visual acuity impairment value and your visual field impairment value.

b. Visual acuity impairment value. Your visual acuity impairment value corresponds to the best-corrected central visual acuity for distance in your better eye. See Table 2.

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**Table 2 - Visual Acuity Impairment Value**

Snellen best-corrected central visual acuity for distance		Visual acuity impairment value (2.04B)
English	Metric	
20/16	6/5	0.00
20/20	6/6	0.00
20/25	6/7.5	0.10
20/30	6/9	0.18
20/40	6/12	0.30
20/50	6/15	0.40
20/60	6/18	0.48

20/70	6/21	0.54
20/80	6/24	0.60
20/100	6/30	0.70

c. Visual field impairment value. Your visual field impairment value corresponds to the visual field in your better eye. Using the MD from acceptable automated static threshold perimetry, we calculate the visual field impairment 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 impairment value is:  $|-16| / 22 = 0.73$ .

d. Visual impairment value. Under [2.04B](#), we calculate the visual impairment value by adding your visual acuity impairment value (see [2.00A8b](#)) and your visual field impairment value (see [2.00A8c](#)). For example, if your visual acuity impairment value is 0.48 and your visual field impairment value is 0.73, your visual impairment value is:  $0.48 + 0.73 = 1.21$ .

**9. 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 MD.
- 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.

**2.02 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, or visual impairment, in the better eye:**

A. A visual efficiency percentage of 20 or less after best correction (see [2.00A7d](#)).

OR

B. A visual impairment value of 1.00 or greater after best correction (see [2.00A8d](#)).

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