CD Part 2

Vision, Balance, Hearing, and Speech

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Part I. Vision

A. Definitions

The following definitions are for words used in this section and during the SSA disability process. If you need additional definitions, consult a good medical dictionary, available in most bookstores and libraries. You can also look at online medical dictionaries like the one at www.medlineplus.gov

Accommodative reflex. Events that take place when you attempt to focus on an object brought near the eyes: the eyes converge (turn in the direction of the nose) and the pupils constrict (become smaller). Absence of an accommodative reflex is normal in children less than six months old; absence in older children suggests blindness.

Achromatopsia. Complete color blindness, in contrast to the partial color blindness that is common in the population. Visual acuity, as well as color vision, relies on retinal cone cells. Achromatopsia may be associated with severe loss in visual acuity.

Acuity. Ability to see clearly.

Albinism. Failure of pigmentary development, including a wide spectrum of possible visual loss. Visual problems may include *strabismus, nystagmus*, light sensitivity (photophobia), and others.

Amblyopia. Congenital eye disorder, characterized by decreased visual acuity in one or both eyes that otherwise appear normal to examination. Amblyopia results from the abnormal alignment of an eye (strabismus).

Anophthalmos. Absence of an eye. Developmental form is very rare.

Anterior chamber. Space between the cornea and the iris.

Aphakia. Absence of the natural lens of the eye, usually a surgical removal because of a cataract or an injury to the eye.

Astigmatism. Irregularity in the surface of the cornea, which can often be corrected with lenses.

Best-corrected visual acuity. The best acuity that can be obtained with refractive lenses. Your glasses or contact lenses do not necessarily produce best-corrected acuity. Best-corrected acuity can be determined either by an ophthalmologist or optometrist, and is a routine part of their examination. Best-corrected acuity testing must be done under standard conditions so that everyone's vision is measured the same way.

Bitemporal hemianopsia. Blindness in the outer halves of both the right and left visual fields. This kind of visual field loss occurs with pituitary tumors.

Blindness. A nonspecific term meaning inability to see. See *statutory blindness*.

Cataract. Degeneration of the lens of the eye so that light cannot easily pass through it. Most cataracts are related to aging, but some date from birth (congenital cataracts), or from the use of medication, such as the chronic use of steroid drugs. Cataracts are sometimes described by doctors as a *lens opacity*.

Central visual field. Central part of the visual field of each eye, related to the function of the *macula*.

Choroid. The layer of blood vessels of the eyeball, lying between the outer sclera and inner retina.

Coloboma. General term for absence or developmental defect that could involve a number of eye tissues such as the retina, iris, choroid, or optic disk.

Cornea. The clear, outer membrane of the eye through which light enters.

Corrected vision. Vision obtained after correction with refractive lenses.

Electroretinogram. Non-invasive test that measures the electrical output of the retina in response to a light. Interpretation requires special training, as with an ophthalmologist who has additional training in retinal diseases.

Encephalitis. Inflammation of the brain. Usually results from infection, but could be caused by other problems such as autoimmune diseases (lupus erythematosus).

Encephalomalacia. Softening of the brain. The term is broad and refers to abnormal tissue from resulting from events such as strokes, decreased blood flow, trauma, or infection.

Extraocular muscles (EOMs). Small muscles that attach to the outside of the eyeball and move it in different directions.

Fixation. Steady, focused gaze at a particular point or object.

Glaucoma. A serious and common eye disease, usually associated with increased fluid pressure inside the eye, which causes damage to the retina

with progressive blindness if not treated medically or surgically. Glaucoma decreases both central and peripheral vision. Most cases of glaucoma are treatable, if diagnosed early.

Goldmann perimeter. An instrument for measuring the size of peripheral visual fields.

Hemianopsia (hemianopia). Blindness in half of the visual field of either eye or both eyes.

High myopia. Very severe near-sightedness. Unlike regular myopia, high myopia is associated with a risk of retinal damage and may cause blindness.

Homonymous hemianopsia. Blindness in the right half of the visual field in both eyes, or the left half of the visual field in both eyes.

Hyperopia. Far-sightedness resulting from the eyeball being too short, causing light to focus behind the retina, rather than on it. Near objects tend to be blurry.

Intraocular lens (IOL). An artificial lens surgically placed inside of the eye to replace a natural lens that is diseased with a cataract. Although the eye's natural lens is also within the eye—intraocular—the use of the phrase "intraocular lens" means an artificial lens.

Intraocular pressure (IOP). Pressure inside the eye, specifically in the anterior chamber right behind the cornea. Ophthalmologists and optometrists routinely measure intraocular pressures to detect elevated pressures that may be associated with glaucoma. Normal IOP is about 20 mm Hg or less, but a normal IOP for one person may be too high for another person. For example, one person may get glaucoma from an IOP of 21 mm Hg, while another suffers no ill effect. On the other hand, the risk of developing glaucoma would be very high for anyone with pressures of 25 mm Hg or more.

Iris. The pigmented (colored) eye muscle that controls the size of the pupil.

Keratoconus. Congenital, cone-shaped deformity of the cornea that can result in loss of visual acuity. Severity varies and may require treatment with corneal grafts.

Leber's congenital amaurosis. A rare, genetic, congenital disorder affecting development of the retina. In severe cases, the disease is detectable at less than six months of age. Poor response of the pupils to light, nystagmus, sunken eyes, and an abnormal *electroretinogram* are characteristic.

Lens. The natural lens is the part of the eye that permits you to focus on objects nearer than about 20 feet. Artificial lenses are intraocular lenses, glasses, and contact lenses.

Lens opacity. Area in the natural lens blocking the transmission of light; a characteristic of cataracts.

Macula. Part of the retina that is responsible for color vision and central vision.

Macular sparing. Used in reference to visual field measurements to mean that visual pathways from the macula are unaffected by a disease process that has decreased other parts of the visual field. The importance of macular sparing is that central visual acuity is preserved.

Mean Deviation (MD). A mathematical calculation of the average intensity of light required to see the various test points in automated threshold perimetry, compared to known norms for gender, age, and ethnicity. Negative values are increasingly abnormal. Automated perimeters have software that makes this calculation automatically and prints it out on a report.

Meridians. The straight, spoke-like lines that intersect in the center of a visual field chart.

Microphthalmos. Developmentally small eyes.

Myopia. Near-sightedness from the eyeball being too long, causing light to focus in front of the retina, rather than on it. Myopia can generally be corrected with glasses or contact lenses, but extremely severe cases can damage the retina to producea *scotoma* (see definition below). Extremely severe cases of myopia are called *high myopia* or *malignant myopia*.

Neovascularization. Excessive growth of new blood vessels in the retina; a serious complication of diabetes.

Nystagmus. Abnormal, rhythmic, oscillating movements of one or both eyes. The oscillations are usually in a horizontal direction, but may be vertical.

O.D. Oculus dexter, or right eye. It is a standard abbreviation associated with the examination of the eyes. In another context, O.D. also means *doctor of optometry*.

Ophthalmologist. A medical doctor (M.D.) or osteopath (D.O.) licensed to practice medicine and surgery, which includes diagnosing eye or other diseases, hospitalization of patients when indicated, writing prescriptions for the treatment of eye or other diseases, administering of medication by any route,

measuring refractive errors, and writing prescriptions for glasses or contact lenses.

Ophthalmoplegia (total). Paralysis of the extra-ocular muscles that move the eyeball, the small ciliary body muscle that changes the shape of the eye's natural lens, and the muscles of the iris that control the size of the pupil.

Optic atrophy. Degeneration of the optic nerve as a result of neurological disease, such as multiple sclerosis.

Optic chiasm. Location just behind the eyes where the optic nerves from each eye meet each other. It is in the optic chiasm that half of each optic nerve's fibers are mixed with those from the other eye.

Optic nerve. The bundle of approximately one million nerve fibers that carries visual information from each eye to the optic chiasm. The optic nerve head is that part of the optic nerve where it enters the back of the retina and can be seen on visual examination of the eye by a doctor.

Optic tract. Right and left bundles of visual nerve fibers leaving the optic chiasm. Each right or left optic tract carries half of the optic nerve fibers from each eye, after they cross in the optic chiasm. The right and left optic tracts enter the right and left cerebral hemispheres of the brain and carry visual information to the primary visual cortex in the back of the brain.

Optometrist (O.D.). A person qualified to measure refractive errors and write prescriptions for glasses and contact lenses. In some states, optometrists are permitted to diagnose glaucoma and write eye-drop prescriptions for some medications used to treat glaucoma; additional diagnostic and treatment privileges may exist in some states. Optometrists are not licensed to practice medicine, cannot perform surgery, cannot diagnose illnesses other than those involving the eye, cannot hospitalize patients, cannot prescribe intravenous or oral drugs, and are extremely limited in the ability to prescribe drugs for the treatment of eye diseases. However, effective April 1, 2007, the SSA will consider optometrists an acceptable medical source for diagnosis of any visual disorder. Prior to this date the SSA could only use optometrist data for visual field and visual acuity measurement; this restriction continues to apply to the Virgin Islands only. (Note: The letters "O.D." also mean right eye and should not be a source of confusion.)

Orbit. Bony space in the skull that holds the eye.

O.S. Oculus sinister, or left eye. It is a standard abbreviation associated with examination of the eyes.

Perimetry. Any technique that measures the size and shape of either central or peripheral visual fields.

Peripheral retina. Surrounds the macula and is responsible for peripheral vision.

Peripheral vision. Visual awareness of objects in the peripheral visual fields, without determining a specific acuity. Without peripheral vision, you would have tunnel vision, as if looking down a tube. A peripheral vision test measures your ability to see objects in your peripheral vision; it maps the size and shape of visual fields and *scotomas* (see definition below).

Peripheral visual fields. Outer parts of the visual fields.

Phthisis bulbi. A congenital malformation of the eye, consisting of shrinkage and wasting of the eyeball, and resulting in virtually complete blindness in the eye affected.

Posterior chamber. Space between the iris and the eye's natural lens.

Presbyopia. Decreased near acuity caused by stiffening of the natural lens of the eye as a result of aging. Most people by age 45 have presbyopia. Correctable with glasses.

Primary visual cortex. Area in the back of the brain that first receives visual information from the optic tracts.

Pseudophakia. An eye with an intraocular (artificial) lens.

Pupil. Circular hole in the iris that controls how much light enters the eye by changing size.

Red reflex. A diffuse red color reflecting from the retina when a doctor shines an ophthalmoscope into your eyes.

Refraction. Testing your vision with different kinds of lenses to learn the degree of refractive error and determine the types and strengths of lenses needed to obtain a best-corrected acuity.

Refractive error. Extent to which poor focusing of light on the retina is responsible for poor central visual acuity. Refractive lenses are used to correct central visual acuity. Nonrefractive errors causing poor acuity, such as diabetic damage to the retina or degeneration of the macula, are not related to poorly focused light and cannot be corrected with lenses.

Refractive lenses. Glasses or contact lenses.

Retina. Light-sensitive layer of the back part of the eye that processes light information before transmission to the brain. The reaction of the retina to light is based on changes in retinal chemicals when hit by photons of light. Such chemical changes excite nerve fibers in the retina.

Retinal detachment. Tearing of the retina from its base.

Retinal edema. Swelling in the retina caused by the buildup of excessive fluid.

Retinopathy. Any disease of the retina. The most common is diabetic retinopathy, which causes blindness. Diabetic retinopathy may consist of *retinal edema* due to leakage of fluid from damaged blood vessels, bleeding in the retina, or *retinal detachment*. Diabetic retinopathy may also cause *neovascularization* (see definition above).

Retrolental fibroplasia. Retinal damage to an infant from exposure to an excessive duration and concentration of oxygen just after birth, often caused when trying to treat the infant for respiratory distress associated with premature lungs.

Sclera. White part of the outer eyeball.

Scotoma. Blind spot in the visual field.

Snellen chart. Chart containing rows of letters which grow smaller from top to bottom. The chart is viewed from a distance of 20 feet, and the ability to read each row is associated with a particular visual acuity for distance.

Statutory blindness. A best-corrected central visual acuity for distance of 20/200 or worse, or a peripheral visual field that is reduced to 20 degrees or less diameter. Disability based on statutory blindness can increase the amount of monthly benefits and can convey other possible financial benefits. Also called *legal blindness*.

Strabismus. Abnormal alignment of one or both eyes ("lazy eye"). Such deviation of an eye can cause varying degrees of visual loss in an otherwise normal eye (see definition of *amblyopia* above).

Tangent screen. Device for measuring the size of central visual fields.

Visual acuity. Type of vision associated with the ability to see maximum detail. Visual acuity involves a small area of the retina called the fovea. Care must be taken not to confuse visual acuity for distance and visual acuity for near vision. It is distance acuity that is usually measured and of the most importance in determination of disability.

Distance acuity. Normal acuity for distance (more than about 20 feet away) is 20/20. The first number refers to the distance you have to be from a test object—such as letters on a Snellen chart—to see it; the second number is how far away a normal person has to be to see the same thing. If you have 20/20 acuity, it means you can see an object at 20 feet that a normal person can see at 20 feet—you have normal distance acuity. If you have 20/200 vision, then your vision is much worse because you must be 20 feet from an object to see what a normal person can see at 200 feet. A decrease in distance acuity is near-sightedness (myopia) and should not be confused with near acuity, discussed below. Many people with poor distance acuity have good near acuity.

Near acuity. Visual acuity for near vision represents how well a person can see objects closer than 20 feet away, especially to read printed materials at about 14 inches. Near vision in adults is tested by the ability to read different-sized text; it is reported as a Jaeger number from J1 to J14. J1 is 14/14, normal vision, because you can see at 14 inches what a normal person can see at 14 inches. If you have 14/140 near vision, however, then text must be so large that what you can read at 14 inches a normal person could read at 140 inches. Problems with near vision are not nearly as disabling as those with decreased distance acuity. While near acuity may be a consideration in residual functional capacity, none of the listings involve near acuity.

Visual acuity efficiency. Determined by referring to tables that assign percentages to different central visual acuities.

Visual efficiency (VE). A calculation of overall visual loss in an eye by combining visual field efficiency and visual acuity efficiency. Obtained by multiplying the visual field efficiency by the central visual efficiency.

Visual evoked responses (VER). Measurements and computer analysis of electrical brainwaves produced in response to looking at a test pattern of light. Tests the health of the brain pathways involved in vision. It is completely safe and harmless.

Visual field efficiency (VFE). Percentage of remaining peripheral visual field in an eye.

Visual fields. Areas of vision in each eye in which vision occurs around the point of fixation—the kind of sight one has of something when not looking directly at it.

Vitreous. Clear, gel-like substance that fills the part of the eye between the lens and the retina. The vitreous makes up most of the weight of the eye. Bleeding of the retina into the vitreous is called a vitreous hemorrhage and is a serious complication of diabetes or trauma to the eye.

B. General Information

Decreased vision may result from many diseases, injuries, or abnormal development of parts of the eye from before birth. The most common causes of adult visual impairments are uncontrolled diabetes, glaucoma, cataracts, or macular degeneration. The most common causes of visual impairments in children are those dating from birth, such as congenital cataracts, retrolental fibroplasia, and eye malformations like phthisis bulbi. Also, uncontrolled diabetes can cause retinopathy in children, just as it can in adults. In both children and adults, some drugs used to treat noneye diseases can damage the retina.

Visual loss can also occur with normal eyes, when there is damage to optic nerves, optic chiasm, optic tracts, other visual pathways deep in the brain, or areas of the brain that deal with processing visual information. If you have increased difficulty with vision after suffering a stroke, brain tumor, multiple sclerosis, or any other condition that can cause neurological damage, let your doctor and the SSA know so you can be properly tested.

Without at least a very basic knowledge of eye structures and functions, you will have difficulty understanding the listings in a way that is useful to you—that is, you will be unable to discuss your case with the SSA, much less know when the SSA is wrong. In an examination of your eyes, a doctor will evaluate extraocular muscle function by watching how the eyeball moves in the orbit; test for the red reflex and the accommodative reflex; measure intraocular pressure; and examine the sclera, cornea, iris, pupillary function, anterior chamber, posterior chamber, natural lens, retina, and optic nerve head. The doctor will perform refraction to determine the extent to which your visual acuity can be improved. Refractive lenses can only improve poor vision caused by myopia, hyperopia, presbyopia, and astigmatism—to the extent that vision is decreased by impairments such as cataracts, glaucoma, retinopathies, or neurological disorders it cannot be helped with glasses or contact lenses. Visual field testing and visual evoked responses are not a part of routine eye examinations.

The SSA listings related to vision always involve the best-corrected vision in the better eye. You might forget your glasses if the SSA asks you to go to a consultative examination (CE) to have vision tested. This won't matter because best-corrected vision is measured with the lenses that are a part of the test, not with your own glasses. You might also allege blindness with the hope of qualifying for disability benefits. Some applicants claim they cannot see anything, including the largest letters on a Snellen eye chart or the largest objects used to test visual fields. The SSA will reject such test results unless a medical doctor or osteopath provides objective information to the SSA showing that you have an eye or brain disorder reasonably capable of causing the alleged visual loss. For example, if you allege a degree of visual loss far worse than would be expected on the basis of eye examination and there is no documented nervous system impairment such as a stroke to explain your poor vision, the SSA may obtain a visual evoked response study on you to determine if the visual pathways in your brain are intact.

C. Specific Listings and Residual Functional Capacity

The listings that follow are in the federal regulations. They have been interpreted and commented on for greater ease of understanding while explaining their requirements. It is impossible to discuss here all of the medical possibilities related to every kind of disorder, and you may need to seek help from your treating doctor to more fully understand how your particular impairment relates to these listings. The discussion of residual functional capacity does not apply to children.

1. Listing 2.02: Loss of Visual Acuity (Adults)

This listing concerns distance vision—the ability to see objects at a distance, meaning farther away than 20 feet.

Blindness from any cause can qualify under this listing, with the exception of "hysterical blindness," which is a rare mental disorder.

The various complications of diabetic retinopathy such as neovascularization, vitreous hemorrhage, retinal edema, and retinal detachment are frequent causes of visual loss in claims seen by the SSA. If you have diabetes and poorly controlled blood glucose levels, a decrease in your central visual acuity may be improved with better control of your diabetes; this is an effect separate from permanent eye damage from diabetes. If it appears that your visual loss is due to poor diabetic control, the SSA may wait until your diabetes is better treated before reaching a final decision on your claim. Similarly, if you are undergoing eye surgery, such as laser treatments for diabetic retinopathy, the SSA may hold your claim until the outcome of the surgery is known.

Satisfying the requirements of this listing qualifies as statutory blindness.

a. Listing Level Severity

To be severe enough to meet the listing, the remaining vision in your better eye after best correction must be 20/200 or worse.

b. Residual Functional Capacity

Poor acuity for distant vision can mean significant restrictions in your ability to function, even if your condition is not severe enough to satisfy the requirements of the listing.

1. Visual (distance) acuity of 20/50 or worse after best correction in the better eye is a significant impairment for which the SSA must provide an RFC rating. An acuity of 20/50 would prevent only performance of those jobs requiring very excellent vision, such as a pilot. Since there are many jobs not requiring excellent vision, an acuity of 20/50 or 20/60 is by itself of little consequence in disability determination. You could, however, have other impairments that add significance when combined with even a modestly decreased acuity. The most striking example is mental Listing 12.05© (CD Part 12)—an IQ of 60–70. That and any significant work-related impairment are enough to meet the listing. An acuity of 20/50 (or worse) is enough to require the SSA to give a physical RFC, and if the SSA gives an RFC it is by definition significant and work related.
2. A best-corrected distance acuity of 20/70 is the cut-off in many states for having a driver's license, though with such acuity you would be far from statutorily blind. This acuity is most important when your prior work has been driving some type of commercial vehicle. If your vocational factors don't permit you to do some other kind of work, then you could be found disabled.
3. While this listing does not involve central acuity for near vision, in unusual cases your near vision may enter into your RFC rating. If you have an uncorrectable problem with near vision and can perform only jobs requiring good near vision—such as reading papers, charts, or blueprints—it is possible that you would be granted disability. If you have a problem seeing close-up, make sure you tell the SSA so specific testing of near vision can be done.
4. If you have uncontrolled advanced diabetic retinopathy, you are at risk for bleeding from your retina. The SSA should recognize your restrictions on lifting and frequent bending or kneeling. In the worst cases, you should not lift more than ten pounds—an RFC for no higher than sedentary work—in addition to whatever visual restrictions you suffer.
5. If you suffer from a detached retina or are at risk of one—for example, because of advanced diabetic retinopathy, certain types of retinal degeneration, or high myopia—the SSA should provide you with an RFC restricting you to no more than medium work with occasional bending or kneeling. Your RFC should also have you avoid work where there's a danger of your head being subjected to jarring motions, such as driving heavy equipment like trucks and tractors. Your RFC rating should include these restrictions even if you have not suffered an actual retinal detachment or if your detached retina (resulting from one of the

listed disorders) has been surgically repaired. If your risk of a detachment is particularly severe, for example, you have a history of prior multiple detachments, your RFC for lifting should be even lower—possibly for sedentary work—maximum lifting of ten pounds.

2. Listing 102.02: Loss of Visual Acuity (Children)

The introductory comments for Listing 2.02: Impairment of Visual Acuity (Adults), also apply here. In young children, retrolental fibroplasia and congenital eye problems—such as malformations and congenital cataracts—may cause blindness. Also, severe nystagmus can cause visual loss, because the constant jerking motion of the eyes prevents clear focusing on detail. Amblyopia can result from strabismus, but most cases involve only one eye and so cannot qualify under the listing. None of these disorders can be improved with glasses or contact lenses.

In children who are too young to identify letters on a standard Snellen chart, but old enough to cooperate in testing, there are charts with pictures that can be used instead.

a. Listing Level Severity

To meet the listing, the child's condition must satisfy Ⓐ or Ⓑ.

Ⓐ Remaining vision in the better eye after best correction is 20/200 or worse. Most allowances of older children for visual loss will be under this part of the listing.

Ⓑ The child cannot participate in formal visual acuity testing. For example, if the child is less than three years old or has mental problems that prevent cooperation in reading an eye chart.

The examining medical doctor must state that the child cannot visually fixate on an object and shows no eye movement following objects moved in front of the child's eyes (no visual following behavior). These findings suggest severe loss of vision, but tell nothing about the cause of blindness. Cause must be established by 1, 2, 3, or 4, below. In most studies, cataracts are the most common cause of congenital blindness. Possible causes:

1. Structural (anatomical) abnormalities in the eye that could reasonably account for an acuity of 20/200 or worse. The following abnormalities cause most cases of congenital blindness in the U.S.
   - cataracts
   - nystagmus
   - macular dystrophy
   - Leber's congenital amaurosis (see Ⓑ3)
   - bilateral optic disk hypoplasia or atrophy
   - cortical visual impairment (brain abnormalities, see Ⓑ2)
   - retinopathy of prematurity (retrolental fibroplasia, Stage III, IV, or V)
   - choroidal degeneration
   - strabismus
   - microphthalmos
   - glaucoma
   - Leber's optic atrophy
   - albinism (pigment defect; may have blindness from strabismus, nystagmus, and disorders)
   - coloboma
   - keratoconus
   - anophthalmos, and
   - achromatopsia.

   Not all anatomical abnormalities satisfying the listing are congenital. For example, eye trauma, infection, cancer, or other disease could distort the structures of the eye and decrease vision. The important point is that the examining doctor can see some type of severe abnormality that could reasonably result in marked visual loss. Two—cataracts and keratoconus—can be partially or fully reversed with surgery. For example, cataracts can be replaced with intra-ocular lenses. The others are irreversible.
2. Abnormal neuroimaging showing damage to the cerebral cortex of the brain that could reasonably account for an acuity of 20/200 or worse. Generally, a MRI or CT scan of the brain would be required, especially showing damage to the back part (occipital lobes) of the brain. The SSA specifically gives encephalomalacia and encephalitis as examples. There are also many brain developmental disorders of genetic

origin that could interfere with visual brain function—even absence of the cortex of the brain itself. The cause is not as important as showing that brain damage is present.

3. Leber's congenital amaurosis and achromatopsia are both genetic disorders that result in poor or absent function of the retina. An abnormal electroretinogram must be obtained; there is no requirement for a specific degree of abnormality. Unless there is some reason to doubt the diagnosis, only one test should ever be necessary.
4. An absent visual evoked response (VER) implies severe damage to the visual pathways somewhere in the retina or brain. Massive bilateral strokes, bilateral brain trauma, lack of brain development, and infection involving both occipital lobes of the brain could have this effect. Congenital disorders affecting both retinas or optic nerves can result in an absent VER, if they are severe enough. The SSA's regulations forbid it to use a *normal* VER result to determine that there is normal visual acuity, because normal VERs can occur even in severe brain damage affecting the occipital lobes.

3. Listing 2.03: Contraction of Peripheral Visual Fields in the Better Eye (Adults)

Because of the importance of peripheral visual field testing to many visual disability claims, this listing contains more detail than others. Use this detail to identify possible SSA errors and oversights, such as not testing your peripheral vision when it should be tested.

Keep in mind that this listing deals only with *peripheral* visual fields. Many treating ophthalmologists submit a tangent screen to the SSA; because this test measures only the center part of the visual fields, it is not sufficient to determine whether your peripheral visual fields are intact. Therefore, the SSA should not deny your claim under this listing with only the use of a tangent screen.

a. Common Disorders Affecting Peripheral Vision

If you have diabetic retinopathy, by the time you have visual field losses severe enough to qualify under this listing you would probably already be granted benefits under Listing 2.02 for loss of visual acuity. If you have not been granted benefits under Listing 2.02 and have advanced diabetic retinopathy, the SSA should have your visual fields tested.

Glaucoma tends to eliminate the peripheral visual fields from the outside in, as if vision were being narrowed down into a tube, and may just about wipe out visual fields before central visual acuity is affected. So if you have glaucoma, it is not enough to have only your central visual acuity measured—you must also have your peripheral visual fields tested. The SSA should not decide your claim until such testing has been done. An exception might be if you have glaucoma in only one eye as a result of trauma. Otherwise, glaucoma almost always affects both eyes and visual field testing can make the difference between allowance and denial.

Some strokes on one side of the brain can produce homonymous hemianopsia, but the SSA may not investigate it. You might be preoccupied with other aspects of your stroke—such as paralysis—and not report visual loss; or you may be depressed or otherwise have difficulty thinking clearly. If you have had a stroke and believe your vision has been affected, let your treating doctor and the SSA know so you can be properly evaluated. Because visual pathways exist in both sides of the brain, you cannot completely lose peripheral vision with a stroke that affects only one side of the brain. Multiple strokes affecting both sides of the brain, however, can cause serious losses in peripheral vision. Unless there is damage to the primary visual cortex of the brain, strokes usually do not affect central visual acuity—there is macular sparing.

Even if you do not meet a visual listing as a result of a stroke, peripheral visual field losses can produce important restrictions in your RFC. To make matters more complicated, stroke patients may not be able to process visual information in certain parts of their visual fields—even though they can see objects, they do not recognize them.

Pituitary tumors press on the visual nerve fibers in the optic chiasm and can produce bitemporal hemianopsia. For this reason, peripheral vision should be tested and if you have such a tumor, the SSA should not decide your claim without testing. Pituitary tumors are more likely to affect peripheral vision than central visual acuity, unless they are very large.

Losses in peripheral vision cannot be corrected with lenses. The SSA should never deny your claim based on claiming that visual field losses can be improved with glasses or contact lenses.

b. How SSA Measures Peripheral Vision

Peripheral visual fields are measured with a device called a perimeter. The essence of perimetry is for you to look at a fixed point, and then without moving your eye, state when you can see test objects as they are moved in toward the center of your vision. The closer to your center of vision a test object must come before you can see it, the smaller your visual field. The visual field size is measured in circles drawn around the center point of visual fixation. Each circle represents an increase of field size by 10 degrees; the largest circle is about 90 degrees. Each eye is tested separately and the results are plotted on charts for the right and left eye. The result shows the size and shape of your remaining visual field. Testing of your peripheral visual fields should not be done while you are wearing glasses (contacts are okay) because the frames of the glasses may interfere with your ability to see the test objects. If for some reason you were tested wearing glasses and denied benefits, note this fact to the SSA.

Most ophthalmologists and optometrists use automated perimeters to measure peripheral visual fields. You simply sit and look into a bowl-shaped instrument, fixating your gaze on a predetermined point. The machine then flashes circles of light of varying sizes and brightness around the inside surface of the bowl and you indicate when you can see one by pressing a button. The test determines how much peripheral vision you have left. Many states use a less sophisticated version of automated perimetry as a part of visual testing for renewal of a driver's license, but these results are not accurate enough for disability determination and should never be used by the SSA as a basis for denying your claim.

In the past, the SSA required that peripheral vision be tested manually using a Goldmann perimeter, but most ophthalmologists and optometrists use automated equipment because it saves them time. Fortunately, the SSA will now also accept automated peripheral vision testing. Two types of automatic equipment qualify. One is called a Humphrey Field Analyzer and the other is the Octopus. Automated visual field testing can be done in a few minutes using sophisticated software programs.

Regardless of the specific type of testing done, the SSA requires that the doctor follow specific protocols to maintain accuracy. For example, the testing doctor must use a specified size and brightness of the object you are supposed to try to see. This test "object" can be physical, as in a Goldmann perimeter, or it can be a spot of light in automated equipment. Although the testing guidelines sound complex as put forth by the SSA, all the doctor has to do it push a couple of buttons to set the software protocol running.

If you wear glasses, you will be asked to remove them, and the equipment will be set to compensate. In *kinetic* perimetry, the test objects can change position. Kinetic perimetry can be manual (Goldmann perimetry) or automated. In *static threshold perimetry*, the points do not move but the intensity of light required for you to see it is measured (the threshold). Static threshold perimetry is always automated.

It is much easier to understand how visual fields are measured if you can see an example plotted out on a visual chart. (See Figure 1, below.) The point of visual fixation during testing is in the center, where all of the straight lines (meridians) intersect. The heavy black line marks the outer edge of the fields in the right and left eyes. The size and shape of the visual field in the right eye is normal, while that in the left eye is abnormally small.

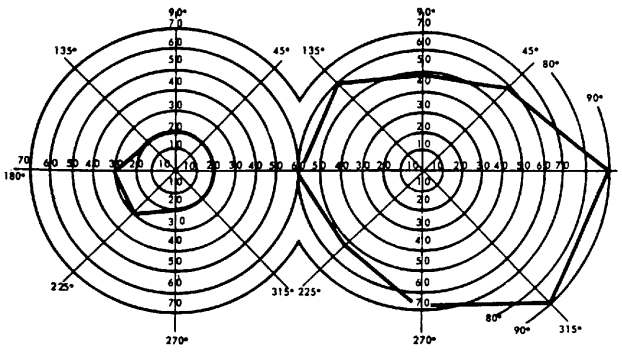

Figure 1

1. 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.
2. The diagram of the left eye illustrates a visual field contracted to 30 degrees in two meridians and to 20 degrees in the remaining six meridians. The percent of visual field efficiency of this field is: (2 x 30) + (6 x 20) = 180 ÷ 500 = 0.36 or 36% visual field efficiency.

c. Listing Level Severity

To meet the listing, you must satisfy Ⓐ, Ⓑ, or Ⓒ. Satisfying the requirements of part Ⓐ of this listing qualifies as statutory (legal) blindness.

Ⓐ Contraction of the peripheral visual field in the better eye so that the widest diameter is no more than 20 degrees from the point of fixation. Testing could be done by either manual Goldmann kinetic perimetry or by automated kinetic perimetry. However, if your VF loss is so severe that even the central part is affected, automated kinetic perimetry cannot be used. In that case either manual Goldmann kinetic perimetry would be used to evaluate under this Part Ⓐ, or automated static threshold perimetry would be used as in Part Ⓑ. (Neither eye in the Figure 1 example would qualify in any case.)

Ⓑ A mean deviation of –22 or worse, determined by automated static threshold perimetry.

Ⓒ A visual field efficiency of 20% or less as determined by kinetic perimetry. The person with visual fields as in Figure 1 could not qualify because the visual field in the better (right) eye is normal and would have a VFE of 100%.

d. Residual Functional Capacity

Medical judgment must be carefully applied in each person's case. Your RFC should state that you cannot work at unprotected heights or around hazardous machinery. Hazardous machinery includes motor vehicles, tractors, forklifts, saws, cranes, or any other type of equipment that can be potentially dangerous to you or others if you don't have good peripheral vision. For example, if you were driving heavy equipment with poor peripheral vision you might not see other vehicles coming or you might hit someone else on a road or construction site. Also, you would have difficulty staying out of the way of dangerous equipment moving around you.

Similarly, the risk of falling from unprotected heights as a result of poor peripheral vision should keep the SSA from sending you to certain jobs. For example, you should not be a steel worker walking along the beams of a skyscraper under construction or even a roofer working on ordinary houses. Risk of injury is not the only factor to be considered regarding work with restricted peripheral fields—if you do assembly line work, you might be unable to keep up with parts moving along a conveyor belt.

4. Listing 2.04: Loss of Visual Efficiency (Adults)

Do not confuse visual efficiency with visual field efficiency, discussed in Listing 2.03, above. Visual efficiency involves a calculation of overall visual loss in an eye by combining visual field efficiency and central visual efficiency. A two-step formula for calculating visual field efficiency is given under Listing 2.03.

Visual acuity efficiency is also easily determined by referring to tables that assign percentages to different central visual acuities, as follows:

Snellen		Percent Visual Acuity Efficiency
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

This table assumes that you have either your natural lenses in both eyes, or artificial lenses in your eyes (intraocular lenses surgically placed). It is not relevant whether or not you have corrective lenses in the form of glasses or contact lenses, because the table refers to your best-corrected acuity by an eye doctor's special equipment and not how well you see with your own glasses or contacts. It is easy to see that if you have 20/20 visual acuity in an eye, then that eye has a 100% visual acuity efficiency. On the other hand, a 20/100 acuity has a visual acuity efficiency of only 50%.

Visual efficiency in each eye is obtained by applying the formula visual efficiency = visual field efficiency x visual acuity efficiency.

> **EXAMPLE:** Your visual field efficiency in the better eye is 40% as revealed by peripheral visual field testing with a Goldmann perimeter. Also, your best-corrected visual acuity in that eye is 20/100, which translates to a visual acuity efficiency of 50%. Your visual efficiency is 20%—the visual field efficiency (40%) x the visual acuity efficiency (50%). Note that one eye might be "better" in visual acuity, while the other eye might be "better" in the amount of peripheral visual field remaining. The listing applies to the eye that has the better visual efficiency.

a. Listing Level Severity

Visual efficiency of your better eye after best correction of 20% or less.

b. Residual Functional Capacity

See discussion of RFC under Listing 2.03. The presence of poor central visual acuity in addition to visual field loss would further restrict visual function and therefore produce even more limitations in possible jobs that the SSA could find for you to perform. Medical judgment must be applied on a case-by-case basis.

Part II. Balance and Hearing Disorders

A. Definitions

The following definitions are for words used in this section. If you need additional definitions, consult a good medical dictionary, available in most bookstores or libraries. You can also look at online medical dictionaries like the one at www.medlineplus.gov.

Air conduction audiometry. Test of ability to hear sound transmitted through the air.

Audiologist. A person specially trained to perform audiometry. Audiologists are not medical doctors.

Audiometry. Hearing test, usually consisting of both pure tone audiometry and speech audiometry.

Auditory evoked response (AER). The brain's electrical response to sound, which can be detected on the scalp.

Auditory tube. Connects the middle ear to the nasopharynx. Also called *eustachian tube*.

Benign positional vertigo (BPV). Vertigo associated with certain positions of the head. It is called benign, because it will improve over a period of weeks or several months and is not usually a cause for great concern.

Bone conduction audiometry. Test of ability to hear sound transmitted through bones in the middle ear.

Brainstem auditory evoked response (BAER). See *auditory evoked response.*

Caloric testing. Test of the vestibular apparatus by putting hot or cold water in the outer ear.

Central hearing loss. Caused by damage to brain areas needed to process information from the ears.

Cholesteatoma. Noncancerous tumor, most common in the middle ear.

Cochlea. Organ of hearing. Also called the inner ear.

Conductive hearing loss. Caused by disease or trauma to the small bones in the middle ear.

Deaf mutism. Profound deafness associated with inability to understand or use spoken language.

Decibel (dB). Unit of sound intensity.

Electronystagmometry (ENG). Measuring of eye movements to detect nystagmus.

Eustachian tube. See *auditory tube.*

External ear canal. Outer part of the ear canal, through which the atmospheric pressure of sound enters the ear. Also called *external auditory canal.*

Hearing threshold sensitivity. The decibel level at which a sound can just be heard.

Hertz (Hz). Sound frequency in cycles per second.

Labyrinthine-vestibular function. Hearing and balance functioning of the labyrinth—the inner ear and the vestibular apparatus.

Middle ear. Space between the eardrum and inner ear. Contains small bones that transmit the force of sound to the inner ear.

Nasopharynx. Area above the throat into which the airways of the nose enter.

Nystagmus. Abnormal, rhythmic, oscillating movements of one or both eyes. The oscillations may be in a vertical direction or, more frequently, horizontal. Induction of temporary nystagmus with caloric testing (test of the vestibular apparatus by putting hot or cold water in the outer ear) is a method of testing vestibular function.

Otolaryngologist. Ear, nose, and throat (ENT) specialist.

Otoscopy. Visual examination of the outer ear canal and eardrum using a lighted instrument (otoscope).

Pure tone audiometry. Test of the ability to hear pure sound frequencies transmitted through the air or bone.

Pure tone average (PTA). The average air conduction hearing loss determined with pure tone audiometry. Also known as the average hearing threshold sensitivity for air conduction.

Sensorineural hearing loss (SNL). That caused by damage to the inner ear or acoustic (auditory) nerve to the inner ear.

Speech audiometry. Test of ability to identify spoken words.

Speech discrimination. Percentage of spoken test words that can be correctly identified during speech audiometry, measured at about 30–40 dB above the speech reception threshold—the lowest decibel intensity at which special test words can be heard.

Speech reception threshold (SRT). Lowest decibel intensity at which special test words can be heard. Does not measure whether a word can be heard well enough to be identified. Normally, the SRT is about 30 dB.

Tinnitus. Abnormal sound heard in the ears when there is no actual sound. Tinnitus is usually a ringing, but it may be a buzzing or other type of sound.

Tympanic membrane (TM). Eardrum.

Vertigo. Condition of hallucination of motion, either where objects seem to move in relation to you (objective vertigo) or you seem to be moving in relation to other objects (subjective vertigo). Vertigo of a spinning sensation is called rotary vertigo. Most people describe vertigo as dizziness, but they also use dizziness when they mean light-headedness, unsteadiness, confusion, or loss of consciousness. You must be able to clearly describe your symptoms to the SSA as vertigo or something else; words like dizziness or light-headedness are not specific enough. Vertigo decreases the ability to maintain balance.

Vestibular apparatus. Part of the inner ear that helps maintain balance by providing the brain with constant information about the position of the head. The vestibular apparatus consists of three semicircular, fluid-filled canals (tubes) at right angles to each other, as well as several other fluid-filled spaces.

B. General Information

Hearing loss is a frequent claim of disability applicants. Many people have hearing loss because of exposure to loud sounds over a period of years. Although most people know to wear hearing protection when they shoot firearms, few realize that they should protect their hearing when using lawnmowers, weed-trimmers, leaf-blowers, or similar loud equipment. Damage to hearing because of loud sounds is far more common than conductive hearing loss. Some claimants tell the SSA that they can't hear anything even when tested, although they seem to have no abnormalities that would cause a hearing loss and have no prior history of profound deafness. In these cases, the SSA might use auditory evoked response testing to identify abnormalities in the brain's hearing pathways that could explain the loss. If the SSA cannot find a cause for the alleged deafness, the SSA won't grant disability benefits.

If you suffer a damaged vestibular apparatus, you may have difficulty with balance from vertigo. You may also experience nausea and vomiting. Most vestibular disturbances result from conditions such as benign positional vertigo, viral infections, drug toxicity, or allergies, and rarely last more than a few months. A condition known as Meniere's disease, however, is much more serious. It may be associated with attacks of severe vertigo, and associated nausea, vomiting, and loss of balance. And, Meniere's disease causes a progressive hearing loss. Vestibular testing is done by otolaryngologists. Defects in balance due to brain disorders often occur—such as after strokes—but would be evaluated under the neurological listings in CD Part 11.

Before applying a listing, the SSA requires physical examination of your ears, nose, and throat by an otolaryngologist. This is to identify possible causes of your disorder to help determine severity and likelihood of improvement. For example, otoscopy might reveal an ear infection, ruptured tympanic membrane (ear drum), or cholesteatoma. Allergies can cause the auditory tube to block off and fluid to build up in the middle ear because it can't drain into the nasopharynx. All of these disorders can cause hearing loss or vertigo, but expected treatment outcomes vary greatly.

C. Specific Listings and Residual Functional Capacity

The listings that follow are in the federal regulations. They have been interpreted and commented on to make them easier to understand, and have explained their requirements. It is impossible to discuss all of the medical possibilities related to every kind of disorder, so you may need to seek help from your doctor to more fully understand how your impairment relates to these listings. The discussion of residual functional capacity does not apply to children.

1. Listing 2.07: Disturbance of Labyrinthine-Vestibular Function (Adults)

The most frequent cause of serious labyrinthine-vestibular dysfunction is Meniere's disease. Using a caloric test, a doctor puts hot or cold water into the external ear canal; the water transmits temperature changes to the vestibular apparatus on that side of the head. These temperature changes set up currents inside the fluid in the vestibular apparatus. Responses to the currents can provide information about whether the vestibular apparatus is normal. Using the caloric test, a doctor can also record the eye movements of nystagmus (electronystagmometry, ENG) and evaluate symptoms of vertigo, nausea, and vomiting.

In order to document the severity of Meniere's disease, the SSA requires that the "… severity of impairment be determined after prolonged observation and serial reexaminations." Therefore, your doctor needs to provide detailed information about your condition over as long a period as possible. Your attacks of balance disturbance should be described in regard to intensity, frequency of occurrence, and duration. Hearing loss must be documented as worsening, and this requires multiple audiometric tests. Your treating otolaryngologist should have this information. If you have had surgery for Meniere's disease, it is possible that the SSA will want to wait a few months to evaluate the outcome before making a final decision.

a. Listing Level Severity

The listing requires that you suffer frequent attacks of balance disturbance resulting from vertigo, ringing or tinnitus, and worsening loss of hearing. Also, you must satisfy Ⓐ and Ⓑ.

Ⓐ Vestibular disturbance shown through a caloric or other tests.

Ⓑ Hearing loss established by audiometry.

b. Residual Functional Capacity

If you suffer from significant vertigo, you should not work at jobs requiring good balance, including work at unprotected heights or around hazardous machinery. Hazardous machinery includes motor vehicles, tractors, forklifts, saws, cranes, or any other type of equipment that can be potentially dangerous

to you or others if you have a sudden attack. Also, during an attack of vertigo, you would have difficulty staying out of the way of dangerous equipment moving around you. Similarly, the risk of falling from unprotected heights as a result of vertigo should keep the SSA from sending you to certain jobs. For example, you should not be a steel worker walking along the beams of a skyscraper under construction or even a roofer working on ordinary houses, if you have significant vertigo. Medical judgment must be carefully applied on a case-by-case basis.

2. Listing 2.08: Hearing Loss (Adults)

The SSA uses audiometry to determine the severity of hearing loss. Profound deafness of any cause, uncorrectable by a hearing aid, is needed to qualify under this listing. The SSA typically evaluates a hearing loss using audiometry as follows:

1. The SSA considers your audiometry results without hearing aids in place. If test results do not qualify you under the listing or on a medical-vocational basis using an RFC, no further hearing loss testing will be done. If test results qualify you under the listing or fit an allowance on a medical-vocational basis, you will still not be awarded disability payments. Instead, the SSA will go to Step 2.
2. The SSA tests your hearing with your own hearing aids, if you have them. If you are still not eligible under a listing or on a medical-vocational basis, no further hearing-loss testing will be done. If you qualify under the listing or on a medical-vocational basis, the SSA will allow your claim. If you do not own hearing aids, or if they are functioning poorly, the SSA will go to Step 3.
3. The SSA tests your hearing with high quality hearing aids. This will require several trips and might take several months.

a. Listing Level Severity

To meet the listing, you must satisfy Ⓐ or Ⓑ—despite the use of hearing aids.

Ⓐ Average hearing threshold sensitivity for air conduction of 90 decibels (dB) or greater in the better ear, and a corresponding loss in bone conduction. This listing involves pure tone audiometry and requires that average hearing loss—pure tone average—be calculated by using the sound frequencies of 500 hertz (Hz), 1,000 Hz, and 2,000 Hz.

> **EXAMPLE:** You can't hear the 500 Hz frequency until it is at least 100 dB—in other words, you have a hearing threshold sensitivity of 100 dB for the 500 Hz frequency sound. You also have a 75 dB hearing threshold sensitivity for the 1,000 Hz frequency and a sensitivity of 95 dB for the 2,000 Hz sound. The pure tone average is 100 + 75 + 95 = 270 dB ÷ 3 = 90 dB. This is a profound hearing loss and would meet the listing if it could not be improved with a hearing aid. The corresponding average loss in hearing by bone conduction is not specified in the listing, but it would have to be about 60–65 dB.

Ⓑ Speech discrimination score of 40% or less in the better ear. This listing recognizes the fact that the ability to hear pure tones of sound (part Ⓐ) is not the same as being able to understand spoken words because words are a mixture of tones. If you cannot identify speech sounds more than 40% of the time when words are read to you from a standard test list, then you are going to have a great difficulty talking to other people and your hearing loss will meet the listing. As a general rule, speech discrimination should not suffer much until the pure tone average in the better ear is 40 dB or worse.

If you have a lifelong documented history of deaf mutism, the SSA will not test for improvement with hearing aids. Even if your air conduction thresholds could be improved with high amplification through a hearing aid, you would still continue to qualify based on lack of speech discrimination. (If you've never used speech, then you are not going to understand it no matter how loud it is, as you have passed the critical childhood brain development period necessary for understanding speech.)

b. Residual Functional Capacity

The SSA does not have set rules regarding RFCs for hearing impairments that do not meet the listing. Both your pure tone hearing loss and your speech discrimination can affect the severity of your hearing impairment, and medical judgment is applied case by case. The charts below give you an idea of when the SSA thinks hearing aids are needed.

Pure Tone Average and Functional Loss			
Hearing level (dB)	**Degree of Loss**	**Speech Understanding**	**Hearing Aid**
0–25	Normal	Normal	Not needed
26–40	Mild	Difficulty with soft speech	Not usually needed
41–55	Moderate	Frequent difficulty with normal conversational (45–50 dB) speech at three feet	Frequently helpful; must also consider speech discrimination
56–70	Moderate – Marked	Frequent difficulty with loud (65 dB) speech at three feet	Frequently needed; must also consider speech discrimination
71–89	Marked	Understands only shouted or amplified speech	May be helpful; must also consider speech discrimination
90 or over	Extreme	No understanding of even amplified speech	May improve lipreading

Speech Discrimination		
Percent	**Quality of Discrimination**	**Functional Result**
90–100%	Excellent	Normal discrimination
75–89%	Good	Slight difficulty sometimes, such as on telephone
60–74%	Fair	Moderate difficulty most of the time
41–59%	Poor	Difficulty in following conversation
40% or less	Very poor	Severe difficulty in conversation most of the time

If you have good speech discrimination (75% or higher) and an average pure tone loss of no worse than about 40 dB in the better ear, then you do not have much restriction and probably would not qualify for an RFC. Also, total deafness in one ear produces little functional restriction if hearing in the other ear is normal. More severe hearing losses should lead to RFC restrictions of your ability to work at jobs requiring good hearing, including good speech discrimination. In applying such an RFC to a medical-vocational determination of disability, the SSA would not send you to work as an air traffic controller, police dispatcher, disc jockey, or telephone sales person. The SSA can cite many jobs that don't require good hearing,

An important consideration is how much difficulty you have in understanding speech against a lot of background noise or in a crowd. When the SSA tests discrimination, it does so in a quiet room. Most people, however, don't work in the quiet and it is well known that the presence of other sounds—especially other people talking—can greatly decrease speech discrimination. If you think you have this kind of problem, make sure that the SSA knows about it.

3. Listing 102.08: Hearing Loss (Children)

Children do not have to be tested for improvement with a hearing aid if they cannot wear such a device effectively. While the SSA has no official age at which a child is supposed to be able to use a hearing aid without taking it off or breaking it, the exemption from being tested without a hearing aid would be most applicable to children under five years of age. But the SSA must apply medical judgment case by case.

Infants cannot cooperate in any of the types of testing mentioned by the listing, but auditory evoked responses can nevertheless be used to determine that sounds are being heard by the infant's brain. Audiologists using the proper equipment can test for evoked responses at each specific sound frequency required by the listing.

a. Listing Level Severity

To meet the listing, the child's condition must satisfy Ⓐ or Ⓑ. Where feasible, testing with hearing aids should be done.

Ⓐ For children under five years old at the time of disability determination, inability to hear air conduction thresholds at an average of 40 dB or greater in the better ear. This is very similar to adult Listing 2.08Ⓐ. The SSA averages decibel intensities of sound required to hear frequencies of 500, 1,000, 2,000, and 3,000 Hz. No bone conduction testing is required. Only a 40 dB or higher average air conduction threshold is required to satisfy the listing. This is an easier requirement than for adults because younger children with even modest hearing losses often have problems with speech and language development.

Ⓑ Children at least five years old at the time of the disability determination must meet 1, 2, or 3:

1. Inability to hear air conduction thresholds at an average of 70 dB or greater in the better ear. Air conduction is tested at frequencies of 500, 1,000, 2,000, and 3,000 Hz. No bone conduction testing is required.
2. Speech discrimination scores of 40% or less in the better ear. This is the same as adult Listing 2.08Ⓑ.
3. Inability to hear air conduction thresholds at an average of 40 dB or greater in the better ear, and a speech and language disorder that significantly affects the clarity and content of the speech and is attributable to the hearing impairment. This is the same as part Ⓐ, with the added requirement that a significant speech and language disorder be documented. The SSA obtains speech and language evaluations by sending the child to a speech pathologist or speech therapist.

Part III. Loss of Speech

A. Definitions

The following definitions are for words used in this section. If you need additional definitions, consult a good medical dictionary, available in most bookstores or libraries. You can also look at online medical dictionaries like the one at www.medlineplus.gov.

Cerebral palsy. Any nervous system disorder dating from the time of birth that is not progressive.

Cicatricial laryngeal stenosis. Narrowing of the larynx because of scarring.

Cleft palate. Congenital fissure in the palate.

Dysarthria. Inability to speak clearly.

Electrolarynx. An electronic device held to the side of the throat to help in producing artificial speech.

Esophageal speech. Speech created by swallowing air then controlling the way it is brought back up. Not everyone can learn esophageal speech.

Glossectomy. Surgical removal of the tongue.

Hypernasality. Excessive movement of air out of the nose when speaking; degrades the intelligibility of speech.

Laryngectomy. Surgical removal of the larynx (voice box).

Palate. The horizontal partition that separates the oral and nasal cavities. The roof of the mouth.

Speech. The production of sounds (phonemes) in a smooth and rhythmic fashion for the purposes of oral communication. Speech includes articulation (uttering, enunciating, and pronouncing), voice (pitch, volume, and quality), and fluency (the flow, or rate and rhythm, of speech). Understandable speech results from precise neuromuscular functioning (coordination of function between the nervous system and the muscles controlled by it) of the speech mechanism (lips, tongue, hard palate, vocal folds, and respiratory mechanism), and intact structure and functioning of the speech centers in the brain.

Vocal cords. Two (right and left) strands of tough tissue in the larynx that vibrate to produce sounds.

B. General Information and Listing

Many impairments can cause limitations in speech, including brain lesions (strokes, trauma, or tumors), cerebral palsy producing dysarthria, or a cleft palate causing a hypernasality. Glossectomy, laryngectomy, or cicatricial laryngeal stenosis can interfere with your ability to produce useful speech. Cicatricial laryngeal stenosis may be caused by prior infection

or traumatic damage. These are organic causes of speech loss, in contrast to loss of speech related to mental disorders. Loss of speech related to mental disorders is evaluated in CD Part 12 Loss of speech related to strokes or other nervous system disorders is evaluated in CD Part 11. Only speech problems related to physical damage to the structures of speech are considered here.

1. Listing 2.09: Loss of Speech (Adults)

Most of the organic loss of speech seen by the SSA involves laryngectomies and glossectomies done because of cancer resulting from cigarette smoking or chewing tobacco.

You cannot qualify under this listing from loss of speech unless you can show an inability to produce useful speech by any means, including esophageal speech or electrolarynx. "Useful" speech means it must be loud enough to be heard, it must be spoken clearly enough to be understood, and you must be able to sustain a reasonable amount of speech for effective communication.

a. Listing Level Severity

Loss of speech due to any cause with inability to produce by any means speech that can be heard, understood, or sustained.

b. Residual Functional Capacity

The severity of the speech loss must be evaluated on an individual basis using medical judgment. If you are not granted benefits under this listing but have significant difficulties speaking, the RFC should state that you cannot do work requiring good speaking ability. In applying such an RFC to a medical-vocational determination of disability, the SSA would not send you to work as an air traffic controller, police dispatcher, disc jockey, or telephone salesperson, but the SSA can cite many jobs that don't require more than minimal verbal communication. ■