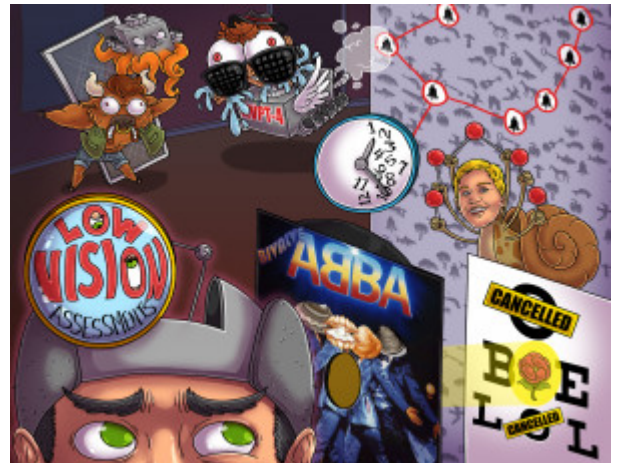


## Low Vision Assessments

There are many different low-vision assessments. These assessments each test for different visual deficits, including contrast sensibility, oculomotor deficits, visual neglect, visual tracking, visual-spatial deficits, visual scanning, central visual fields, eye dominance, visual acuity, and more. Occupational Therapists use low vision assessments in all continuum of care. A quick visual screening should be performed at the start of care to create a baseline and to understand what, if any, the client's vision will impact on their performance to complete tasks. Additional screenings may be required if a deficit is indicated.



PLAY PICMONIC

### Assessments

#### BIVABA (Eye Dominance)

##### [BIVAlve-ABBA record](#)

BIVABA stands for brain injury visual assessment battery for adults. BIVABA assesses eye dominance. Eye dominance is very important because, no matter which eye is stronger, the client will direct their viewing with their dominant eye. If the dominant eye has poorer vision, the occupational therapist will need to accommodate tasks and activities to the visual acuity of the dominant eye. There are a few ways to ascertain eye dominance. Sometimes it is as simple as asking, "What eye do you hold up to the camera when you are taking a picture?" And the one they say is the dominant eye. Another test would be having the client hold out both arms in front of them and with their hands making a triangle. The therapist will stand at a distance and ask them to look through the triangle to see you. The eye they use to look will be their dominant eye. The BIVABA is an assessment that is similar to the triangle assessment. Instead, the BIVABA includes two cards; a form card with an 8mm hole and a flower design card. The room should be well-lit, and the client should be wearing their glasses if needed. Place the card with the hole in front of the client. The occupational therapist holds the flower card 16 inches away from the client and directs the client to pick up the hole card and use it to view the flower card. Whatever eye the client uses to look through the hole is the dominant eye.

#### Snellen Chart (Visual Acuity)

##### [Snail-Ellen Chart](#)

Visual acuity demonstrates the sharpness of vision at the part of the retina that fixates on a target. Traditionally, visual acuity is measured for both close and distant vision. For distance, testing is done at 20 feet (6 meters). Near vision testing is at 16 inches. A common visual acuity assessment should be given in a well-lit room, with a chart that does not hold glare; the Snellen Chart being the most common. Test the patient's dominant eye first, then the non-dominant, and finally, both eyes together. An occluder should be used when testing them individually. The Snellen Chart should be held or positioned at midline, with the appropriate distance between the chart and the client. The client may turn or tilt their head but may not change the distance. The Snellen Chart has eleven lines of blocked letters, decreasing in size from top to bottom. The smallest line the patient can read indicates the visual acuity for that eye.

#### Red Dot Confrontation Test (or American Academy of Ophthalmology Red Dot Confrontation Test) (Central Visual Fields)

##### [Red Dot Confronting](#)

The American Academy of Ophthalmology Red Dot Confrontation Test is the only low-vision assessment completed with the client's eyeglasses off. This assessment uses 2 tongue depressors with red dots at one end of each depressor, on both sides of the patient, and with an occluder. When testing central vision, the occupational therapist sits 1 meter from the client and holds the depressors 20 inches from the client. They are held in 5 different positions with the client in a well-lit room, and only one eye is tested at a time. The client is instructed to focus on the examiner's eye when

testing, with the eye not being examined occluded.

### **Letter Cancellation Test (Visual Scanning)**

#### **Letter Cancelled**

The letter cancellation test is used to evaluate the presence, pattern, and severity of visual scanning and neglect deficits. Visual scanning is the act of visually searching the environment. In this test, you are given a sheet of paper with rows of capitalized letters. The occupational therapist will direct the client to go through the rows and circle or cross out two letters they were directed to cancel out. This test will be time for speed and accuracy.

### **Bells Test (Visual Neglect)**

#### **Bells**

Visual neglect refers to the failure to detect, report, or respond to stimuli (people or objects) presented to the side opposite of a brain lesion. We already know that visual neglect can be assessed using the Letter Cancellation test. However, another good assessment we have not talked about is the Bells Test. The Bells Test has the client circle 35 bells embedded within 280 distractors on a standard-sized sheet of paper. All the drawings are black. To begin, the occupational therapist will place a demonstration sheet in front of the client with an oversized version of the distractors and one circled bell. The therapist will ask the client to name the images to ensure proper object identification. Then the therapist will remove the demonstration and place the test page in front of the client at midline. There is a black dot at the bottom of the page that indicates where the page should be placed for center.

### **Line Tracing (Visual Tracking)**

#### **Line Tracing**

Visual tracking is typically defined as the ability to efficiently move the eye from left to right (or right to left, up and down, and circular motions) or by focusing on an object as it moves across a person's visual field. This skill is important for almost all activities of daily living, including reading, writing, cutting with scissors, drawing, and playing. Typical visual processing development shows the ability to visually track objects emerging in a child around the age of five. Problems with visual tracking in school-aged children can result in; losing place when reading, skipping words or lines, omitting, substituting, repeating when reading, poor reading comprehension, short attention span, confusion interpreting written directions, spacing letters, confusion with left/right direction, persistent reversal of letters when naming letters or when writing letters after 2nd grade, errors when copying from chalkboard or misalignment of horizontal and vertical series of numbers in math problems. One low vision assessment designed to quickly identify visual tracking deficits is Line Tracing. Line tracing can be done with the client using a finger to trace lines or with a pen/pencil. Lines may vary in length, direction and may be straight or curved. The goal is for the client to follow the line from right to left as best as possible.

### **Clock Drawing Test (Visual Spatial Deficits)**

#### **Clock Drawing**

The Clock Drawing Test is a simple and effective cognitive assessment that tests executive function and visual-spatial deficits. For a client to successfully complete a clock drawing, they must be able to understand verbal instructions, use short-term memory, and use visual constructive skills to complete the task. The client is then asked to draw a clock, all the numbers, and draw the time at 10 after 11. If the drawing shows numbers that are crowded and/or an obvious layout problem of the clock or even a drawing that has neglected to draw on one-half of the clock, then visual-spatial deficits are indicated. These deficits are commonly seen after a stroke.

### **Motor Free Visual Perception Test (MVPT-4)(Visual Perception)**

#### **Motor Free Eye Perception**

Visual perception is when visual information is taken from the surrounding environment, up through the eyes, and then to the brain for processing and interpretation. If the eyes are healthy, but the brain is having difficulties with visual processing, then a visual perception deficit may occur. Visual perception may include figure-ground, form discrimination, spatial relations, form constancy, object recognition, whole/part relationships, and visual memory. Since the brain is responsible for overall perception and processing, the cause is generally neurological damage from injury or illness. A low vision assessment that tests for visual perception is the Motor Free Visual Perception Test (MVPT-4).

## **Vestibular/OculoMotor Screening(Oculomotor Deficits)**

### **Vest-bull Octopus-motor Screen-door**

The Vestibular/OculoMotor Screening is a low vision assessment that tests for oculomotor deficits. This assessment tests the ability to follow a slow-moving object (smooth pursuit), the ability of the eyes to move quickly from one object to another (saccades), the ability to view objects as they get nearer without double vision (convergence), access the ability to stabilize vision as the head moves (vestibular-ocular reflex), test visual motion sensitivity and the ability to inhibit vestibular-induced eye movements using vision (visual motion sensitivity test).

## **Rabin Contrast Sensitivity Chart (Contrast Sensitivity)**

### **Ray-ban Contrast-colors Sensitive-crying**

Contrast sensitivity is the ability to distinguish an object and the background behind it. Contrast sensitivity is different from visual acuity, which measures your vision's clarity at a distance. Decreased contrast sensitivity can be from either a refractor error or other eye conditions, including; glaucoma, cataracts, amblyopia, and/or age-related macular degeneration. An example of contrast sensitivity would be an individual finding it difficult to see the pedestrian crossing the crosswalk at night. The Rabin Contrast Sensitivity Chart detects subtle effects of defocus, low luminance, and glare. This test uses several different levels of contrast to find the patient's true sensitivity.