Crowded Single Lea Symbols Visual Acuity Test

(Lay Screener at 5 Feet)



What Are You Testing?

Visual acuity testing tests how well the child sees small objects far away. For this test, the distance between the child and the object is 5 feet (1.5 meters).

What You Need to Do the Test:

The crowded Single Lea Symbols Visual Acuity disk with masking window.

Each disk card contains 8 symbols (combinations of an apple, house, circle and square) surrounded by black crowding bars (lines around each symbol). The disk rotates from one symbol to the next. The masking window displays one symbol at a time. Four crowded Single Lea Symbols disk cards will be used for screening. Two disk cards are for 3-year-olds and two disk

cards are for 4- and 5-year-olds. At each age level, one disk is for testing the right eye and one disk is for testing the left eye so children don't memorize the order of symbols.

- A lap card that has each of the 4 symbols on it.
- Single, large symbols (one each of the apple, house, circle and square) with crowding bars for pre-testing.
- Two sets of 4 baseline cards with symbols (one each of the apple, house, circle, and square) surrounded by crowding bars. One set will be used for the right eye and one set will be used for the left eye.
- Two pairs of occluder glasses one for testing the right eye and one for testing the left eye.
- If the child will not wear the occluder glasses, try micropore tape next. If that does not work either, use junior size eye patches (e.g. Opticlude patches) to occlude vision in the eye that is not being tested. [NOTE: The eye may be occluded with the palm of the hand only if all other methods fail.]

Tissues to wipe the ear pieces and nose area of the occluder glasses.

Antibacterial wipes to clean the lap card.

A small hand-held mirror.

One mark on the wall, 5 feet from the lamp stand on which the cards will be displayed and at the same height as the cards on the stand. This mark indicates the location of the child's eyes.

Measuring tape and masking tape.

A light meter.

A lamp stand and wedge.

An extra bulb for the lamp in the stand.

A sturdy table or chair to set the lamp stand on.

Chairs for the child and the screener.

A data form and a pen. For specifically designated time periods, a time stamp will be required. Also, in the Educational/Daycare settings, labels for the forms may be provided by VIP Study personnel from the VIP Clinical Center.

Getting Ready:

1. Place the lamp stand on the sturdy table or chair and place the wedge on the lamp stand.

Turn the lamp on.

- Use the light meter to check the cards. With the wedge in place on the lamp stand, hold one of the cards as it will be held when testing. Place the light meter lengthwise on the card with the white sensor facing out (toward where the child would be sitting). Look at the reading on the light meter. The number on the light meter should be above **297** lux.
- Arrange the child's chair so that the cards are 5 feet from the child's eyes. If possible, mark a spot on the wall to line up the child's eyes 5 feet from the cards on the lamp tray.
- Make sure the child's name, birth date, test location, and date are on the data form. Either use labels provided by the VIP Study or write (legibly) the information on the form.
- Select the baseline cards and 2 disk cards that are appropriate for the age of the child to be tested. Check the age-specific disks against the child's age as of the screening date.
- Arrange the baseline cards in order (the same set of baseline cards is used for 3-year-olds and 4- and 5-year-olds):

```
R A, R B, R C, R D and L A, L B, L C, L D
```

Make sure the version of the data collection form matches the correct age of child.

How You Do the Test:

- 2. If the child is wearing glasses, **do not** remove them prior to testing.
- If collection of testing times has been requested for the screening, stamp the start time with the electronic stamp in the appropriate box on the data form when you start the Lea pretest. Press firmly and let go when the stamp stops printing by itself.
- Position the child 5 feet from where the cards will be presented on the lamp stand. Make sure the child's eyes are lined up with the mark on the wall.
- Show the child the Lea lap card either by giving it to him/her to hold or by showing him/her where the lap card is displayed. The symbols should be right side up as the child is looking at them.
- Pre-train the child binocularly (using both eyes) to practice identification of the symbols and find out whether the child is able to perform the test.
- Hold the single symbols about 3 feet (1 meter) from the child. Point to a symbol and ask the child to name or point to the matching symbol on the lap card. If the child uses the lap card to identify the symbols, tell him/her to "touch" the symbol. Continue this procedure until all 4 symbols have been correctly named or matched up to a maximum of 2 presentations for each symbol. If the child cannot do the task by matching or naming, mark the child as "**Unable**" on the data form. If the child is able to do the task by matching or naming the symbols, mark the

child as "Able."

Note: Other names for the symbols are acceptable as long as the child uses them **consistently**. For example, the child may call the apple a heart or the circle an "O" or the rectangle a window. However, if the child ever starts using a new name or there is ever any question about which symbol the child is referring to, the child should be asked to point to the symbol on the lap card.

Place the occluder glasses on the child so that the left eye is covered.

- If you have difficulty getting the child to wear the occluder glasses, let the child admire himself/herself with the glasses on using the hand-held mirror.
- If the child is unable or refuses to wear the occluder glasses, attempt to cover the child's left eye with micropore tape. If this doesn't work either, use a patch. To use the micropore tape or patch, point to the left eye and tell the child to close that eye. Then cover the left eye with a piece of the micropore tape (make sure to protect the eye from the adhesive on the tape) or an eye patch (in the order specified).
- If the child refuses to wear the occluder glasses, the micropore tape, or the patch, it is preferable to have a helper cover the child's eye with the palm of his/her hand. The examiner must monitor the child carefully to make sure he/she is not peeking and that the palm is not pressing against the child's eye. Covering the eye with **fingers** is not allowed because peeking is too easy with only fingers in front of the eye. If the child refuses to allow a helper to cover their eye, the child can cover his/her own eye with the palm of his/her hand.
- Check the position of the child for testing. The child's eyes will need to be at the same height as the cards when held by the tester. It is important for the child to be able to look straight ahead at the cards and not be off to the side or lower or higher than the cards.
- Verify that you have the correct age-specific disks for the child by reviewing the child's age. Check the birth date against the screening date or read the child's age from the VIP nametag if provided.
- Pick up the baseline cards and the set of cards that corresponds to the child's age (3 dots on the set for 3-year-olds, 4 dots on the set for 4- and 5-year-olds).
- Place baseline card **R A** on the stand in front of the wedge. Have the child name or match the symbol. If the child incorrectly identifies the symbol, put an X on symbol **A** on the data form. Continue testing the next baseline symbols as noted below, marking on the form whenever the child gets the symbols wrong (X).

- If the child gets 2 or more wrong (2 or more X's on the line on the data form), **STOP** and test the left eye.
- If the child correctly identifies all the symbols or only gets 1 wrong (1 X on the line on the data form), continue testing the right eye as follows.
- Pick up the right-eye disk card for that child's age. Begin testing with symbol **3R 1** (or **4R 1** for 4- and 5-year-olds) (start position). After the child gives his/her response, rotate the wheel clockwise to symbol **3R 2** (or **4R 2** for 4- and 5-year-olds).
- Mark on the data form whenever the child gets a symbol wrong (X the symbol).
- Continue testing with each successive symbol until a child gets 2 symbols wrong on a line of symbols on the data form or completes testing on all symbols. Be sure to move the disk in the same clockwise direction.
- If the child completes all the symbols without getting any X's, check the box on the data collection form that states that all symbols were read correctly.
- If the test is interrupted, place a capital letter "I" on the first symbol **not** presented to the child. If the interruption was on the right eye and the left eye was not tested, also place an "I" over the symbol numbered 3L A, or 4L A, as appropriate.
- The child should be asked to use matching with the lap card if he/she responds with a symbol that is not one of the 4 on the chart.
- If the examiner notices that a child gives a response while not paying attention to the VA task, that response should be ignored. The examiner should re-focus the child's attention on the task and continue testing.
- Provide positive comments about the child's performance, regardless of whether the child identifies the symbol correctly or incorrectly.
- Begin testing the left eye by covering the right eye with the occluder glasses. Repeat the testing procedure on the left eye by starting with the baseline cards for the left eye. These cards start with symbol number **3L A** for 3year-olds and **4L A** for 4- and 5-year-olds.
- Mark on the data form whenever the child gets a symbol wrong (X the symbol).
- If the child does not get 2 or more wrong on the baseline cards, go to the disk card for the left eye for that child's age. Begin testing with symbol **3L1** for 3-year-olds or **4L 1** for 4- and 5-year-olds.
- Continue testing with each successive symbol until a child gets 2 symbols wrong on a line of symbols on the data form or completes testing on all symbols.

- If the child completes all the symbols without getting any X's, check the box on the data collection form that states that all symbols were read correctly.
- Clean the lap card with an antibacterial wipe as needed.
- Wipe the ear pieces and nose area of the occluder glasses with a tissue after each use.

What You Tell the Child:

- **3.** Urge the child to keep naming or matching the symbols even if the child must guess.
- Remind the child to stay in the same position and look straight ahead at the cards.

Encourage the child by saying "Good job!" even if the child names or matches the symbols incorrectly.

What You Write Down:

4. For specifically designated time periods a time stamp will be required. Stamp the start time with the electronic stamp in the appropriate box on the data form when you start the Lea pretest. Press firmly and let go when the stamp stops printing by itself.

Time Stamp

Mark "Able" or "Unable" for the Lea pretest.

Pretest:

```
Unable ( )<sub>0</sub> (STOP! Go to next page)
Able ( )<sub>1</sub>
```

- If the child's age is 3, make sure you have a data collection form for children age 3. If the child's age is 4 or 5, make sure you have a data collection form for children age 4 or 5.
- Place an "X" over each symbol the child does **NOT** correctly identify. (Stop testing the eye if the child misses two symbols on one line.)



If the child correctly identifies all the symbols presented, write a check in the check box indicating this.

 $\square_1 \checkmark$ if child correctly identified all cards presented with the right eye

If the test is interrupted or incomplete after the child completes the pretest, write the capital letter "I" over the first symbol not presented to the child due to the interruption. If the interruption was on the right eye and the left eye was not tested, place an "I" over the symbol numbered 3L A, or 4L A, as appropriate.

Remember!

5. Make sure the child's name, birth date, test location, and date are on the data form.

Make sure you stamp the start time on the form.

Make sure that the light meter reading is above 297 lux.

Maintain the distance during the test.

Make sure the child does not peek around the occluder glasses, eye patch, micropore tape, or palm of his or her hand.

Keep urging the child to name or match each symbol.

Move onto the next line only if there are not 2 or more X's on a line.

Do not tell the child he/she gave the wrong answer. Say "Good job!" no matter what the child answers.

SureSight Recording Form

denti	ification (place	ID	label i	n the box below	V)		Tape SureSight printout HERE
	ID:						and the second
	Name:						Re-take if reliability numbers is less than 6.
							For each eye, circle the lir
\1 .	Time IN: (Sta in the box b			Time ss stamp until i	tst	tops.)	with the first reliability number that is 6, 7, 8, or 9
	Start Time						
	Stamp						Do not take more than 3
							readings per eye!!
12.	Number of re	ad	ings p	er eye			Tape carefully on edges.
а.	Right Eye		b.	Left Eye			
	None (unable)	()o	None (unable)	()0	
	One	()1	One	()1	
	Two	()2	Two	()2	
	Three	()3	Three	()3	

Vision Screening Reminders

Crowded Single Lea Symbols Visual Acuity Test Screening Reminders

6. If the child wears glasses, **do** have the child wear glasses for the test.

Secure the lamp stand on the table and place the wedge on the stand.

Turn **ON** the lamp on the stand.

Using the light meter, check the cards (reading should be **above** 297 lux).

- Use marks on the wall or floor to make sure that the distance between the child's eyes and the test cards is 5 feet.
- Select the 2 baseline flip books and two disk cards that are age appropriate for the child (for 3-year olds the book with 3 yellow dots; for four- and five-year-olds the book with 4 red dots).
- For specifically designated time periods, a time stamp will be required. Stamp the start time on the data form.
- Pretest binocularly with the 4 symbol cards.
- The child must identify (match) all 4 symbols (additional training permitted).
- If the child cannot identify (match) all 4 symbols, **STOP**. Check "**Unable**" on the data form.
- Test **monocularly** with the baseline flip card book for the right eye and the age-appropriate right eye disk card. On the back of each disk card, the age of the child and the eye to be tested are listed.

When testing:

- Do **not** hold the baseline card in front of the wedge (slide it onto the wedge).
- If it is necessary to direct the child's attention to the symbol, point upward from below the symbol, making sure the pointing finger or pointer is below the crowding bar that is below each symbol. Do not touch or cover the crowding bar.
- Have the child name or match each successive symbol.

On the data form, mark an X on each symbol that the child misses.

If the child gets 2 wrong on a line, STOP. Test the left eye.

If the child does not get 2 X's on a line, continue testing until all 4 baseline symbols and all 8 symbols on the disk card have been shown.

A test is incomplete if a child does NOT get two X's on a line **and** does NOT finish testing on the last line of the data form. On the data form, mark

"Incomplete."

- Test the RIGHT eye first. If a child correctly identifies all symbols presented, mark the box on the data form that says "child correctly identified all cards presented with the right eye."
- Then test the LEFT eye with the baseline flip card book and the disk cards appropriate for the child's age.

If Testing is Interrupted:

7. Write "I" on the first symbol **not** shown to the child.

Check "Incomplete" on the data form.

Resuming Testing after an Interruption:

- 8. Pre-train the child binocularly.
- Resume testing with the first symbol the child did **not** attempt before the interruption.
- Use VIP correction procedures to correct the data form since the test is no longer "**Incomplete**."