

Lea Crowded Symbols Distance Visual Acuity Test

What Are You Testing?

Distance visual acuity testing tests how well the child sees small objects far away. For this test, far away means 10 feet (3 meters) between the child and the object.

What You Need to Do the Test:

1. The Lea Crowded Symbols Cards. Each card contains a line of 5 symbols (combinations of an apple, house, circle, and square) surrounded by a black crowding border (a line that forms a rectangle around the 5 symbols). The crowding border is one-half a symbol width away from the symbols, and symbols are separated by a full symbol width. Two sets of Lea Crowded Symbols cards will be used for screening. One set consists of cards containing symbols in the following sizes: 10/32, 10/25, and 10/20; this set will be used for testing children less than 4 years of age. The other set consists of cards containing symbols in the following sizes: 10/25, 10/20, and 10/16; this set will be used for testing children 4 years of age. Each set of cards has separate cards for the right and left eye, to prevent over-estimation of acuity due to memorization of the order of symbols.
2. A lap card that has each of the four symbols on it.
3. Single, large symbols (one each of the apple, house, circle, and square) for pre-training.
4. A card with 10/100 symbols (one each of the apple, house, circle, and square) surrounded by crowding bars.
5. Junior size eye patches (for example, Opticlude patches), or a gauze patch covered with micropore tape to occlude vision in the eye that is not being tested.
6. A hand-held mirror.
7. Two marks on the wall, 10 feet apart. One mark indicates the location of the child's eyes and one mark indicates the location of the test card.

Getting Ready:

1. Adjust the lighting by turning on all three overhead lights, turning on the halogen lights, and turning the rheostat to the position marked on the switch plate.

2. Select the set of cards that is appropriate for the age of the child to be tested. The age of the child should be determined by viewing the age printed on the data collection form.

How You Do the Test:

1. If the child is wearing glasses, remove them prior to testing.
2. Position the child 10 feet from where the cards will be presented. The child may sit or stand.
3. Show the child the Lea lap card either by giving it to him to hold or by showing him where the lapcard is displayed. The symbols should be right side up as the child is looking at them.
4. Pre-train the child binocularly (using both eyes) to rehearse identification of the symbols and ascertain whether the child is able to perform the test.
5. 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 lapcard. If the child uses the lapcard to identify the symbols, instruct him to “touch” the symbol. Continue this procedure until all four symbols have been correctly named or matched. If the child cannot do the task by matching or naming, score the child as “Unable” on the score sheet.
6. Point to the child’s left eye and tell the child to close that eye. Then cover the left eye with an eye patch.
7. If you have difficulty getting the child to wear the patch, you may hold the hand-held mirror in front of the child so that the child can admire himself/herself with the patch on. This may help to improve behavior and testability.
8. If the child refuses to wear the patch, the child may occlude his eye with the palm of his hand. The examiner must monitor the child carefully to make sure he 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.
9. Check the position of the child for testing. The child will need to be at the same height as the testing cards when held by the examiner. 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 than the cards.
10. Read the child’s age from the VIP nametag.

11. Pick up the 10/100 card and the set of cards that corresponds to the child's age (4 dots on the set for 4 and 5 years old, 3 dots on the set for 3 years old) and move to the location (10 feet from the child) where the Lea cards will be presented.
12. Point to the first symbol on the 10/100 R card. Use the top of a pen or a single finger to point to each symbol from below, taking care not to encroach on the crowding bar. Have the child name or match the symbol. Continue testing successive symbols as noted below:

If the child correctly identifies the first 3 symbols, continue testing with the next card.

If the child gets 2 of the first 4 symbols wrong, stop the testing for that eye. Testing may stop as soon as there are two wrong symbols.

If the child correctly identifies 2 of the first 3 symbols, ask the child to name or match the 4th symbol. If the child correctly identifies the 4th symbol (3 correct out of 4), continue testing with the next card.

NOTE: Simply stated, the above rules translate to "Continue to the next card if the child gets 3 out of 3 or 3 out of 4 correct."

NOTE: the 5th symbol is never used.

13. Use the bound set of cards and skip the first (10/40) card. The next 3 cards in the book are age specific. The cards are 10/32, 10/25, and 10/20 for age 3 and 10/25, 10/20, and 10/16 for age 4 or 5. Continue testing with each successive card as noted above until a child gets 2 symbols wrong on a card or completes reading all the cards.
14. The child should be asked to use matching with the lapcard if he responds with a symbol that is not one of the 4 on the chart.
15. 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.
16. Provide positive comments about the child's performance, regardless of whether the child identifies the symbol correctly or incorrectly.
17. After testing of the right eye has been completed, write down the acuity result. **Do not close the test booklet until you have written down the acuity result.**
18. Remove the eye patch from the left eye and throw it away. Begin testing of the left eye by covering the right eye with a new patch. Repeat the testing procedure on the left eye by starting with the 10/100 L (for left) card.

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19. After testing of the left eye has been completed, write down the acuity result. **Do not close the test booklet until you have written down the acuity result.**
20. Turn off the halogen lights.

What You Tell the Child:

1. Keep encouraging the child to respond to your questions.
2. Remind the child to stay in the same position and look straight ahead at the Lea card.

What You Write Down:

1. Indicate "Able" or "Unable" for the Lea Pretest.
2. If the child's age is 3, record the results in the left column. If the child's age is 4 or 5, record the results in the right column on the data sheet.
3. Indicate the best acuity value (e.g., 100, 32, 25, 20, 16) for which the child correctly named or matched at least 3 of the first 4 symbols.
4. If the test is interrupted or incomplete after the child completes the Pretest, check the incomplete box in the column that indicates for which eye the testing was incomplete. Check both boxes if both eyes are incomplete. Remember to indicate the best acuity value for the last symbol size that was successfully completed (3 of 4 symbols correctly identified).

Remember!

1. Maintain the distance during the test.
2. Make sure the eye patch or child's palm completely covers the child's eye (don't let the child peek).
3. Keep encouraging the child.
4. No more than one acuity value for each eye should be marked with an "X."
5. **Do not close the test booklet until you have written down the acuity result.**
6. Test using only the first 4 symbols (3 out of 3 or 3 out of 4 to pass).