

Protocol ID: _____

Study Name: _____

Site: _____

Event Name: _____

Event Date: _____

Study Subject ID: _____

Interviewer Name: _____

Interview Date: _____

BLSA Visual Acuity - Ver. 1.1

Section Title: Stereopsis

Instructions:

Date Completed

☐ Blank

Tester ID

STEREOPSIS:

"Now I will test your depth perception. You will wear these 3D glasses to pick out circles that appear closer to you. Put these glasses on" and WHEN APPROPRIATE: "over the top of your reading glasses. Be careful with them - they break easily."

"Please hold this book for me. I'm going to establish the distance from your eyes to the book. Keep the book at this distance from your eyes.." Use the 16-inch string attached to the book to establish a distance of 16 inches from the participant's forehead.

STEREOPSIS HOUSEFLY PRE-TEST:

"Please look at the right side of this booklet. What do you see?" (A housefly)

"What part of the fly seems to come out at you or be closer to you?" (The wings)

STEREOPSIS FLOWCHART: (show the participant the testing circles)

"Now look at these sets of 4 circles. Are the circles clear?"

Yes (clear) continue with test

No (not clear) => Is the participant wearing glasses? - Yes - Ask to remove glasses and ask "are the circles clear?" If yes continue with test. - If No offer reading glasses

No Offer reading glasses using the guidelines until participant achieves the clearest view.

"Now look again at the circles. One circle in each set will be like the fly and appear closer to you than the others. Please tell me which circle in each set appears closer to you - left, right, top, or bottom. If you are not sure, please guess. I must record a

response."

Line 1	<input type="radio"/> Left <input type="radio"/> Right <input type="radio"/> Top <input type="radio"/> Bottom	Click to deselect entry
Line 2	<input type="radio"/> Left <input type="radio"/> Right <input type="radio"/> Top <input type="radio"/> Bottom	Click to deselect entry
Line 3	<input type="radio"/> Left <input type="radio"/> Right <input type="radio"/> Top <input type="radio"/> Bottom	Click to deselect entry
Line 4	<input type="radio"/> Left <input type="radio"/> Right <input type="radio"/> Top <input type="radio"/> Bottom	Click to deselect entry
Line 5	<input type="radio"/> Left <input type="radio"/> Right <input type="radio"/> Top <input type="radio"/> Bottom	Click to deselect entry
Line 6	<input type="radio"/> Left <input type="radio"/> Right <input type="radio"/> Top <input type="radio"/> Bottom	Click to deselect entry
Line 7	<input type="radio"/> Left <input type="radio"/> Right <input type="radio"/> Top <input type="radio"/> Bottom	Click to deselect entry
Line 8	<input type="radio"/> Left <input type="radio"/> Right <input type="radio"/> Top <input type="radio"/> Bottom	Click to deselect entry
Line 9	<input type="radio"/> Left <input type="radio"/> Right <input type="radio"/> Top <input type="radio"/> Bottom	Click to deselect entry
Was stereopsis test completed?	<input type="radio"/> Yes <input type="radio"/> No	Click to deselect entry
Reason not done	<input type="radio"/> Physical problems <input type="radio"/> Cognitive problems <input type="radio"/> Physical and cognitive <input type="radio"/> Refused* <input type="radio"/> Technical problems	*If participant refused because cannot see correctly please mark "physical problems" instead
Did participant wear glasses?	<input type="radio"/> Yes <input type="radio"/> No	Click to deselect entry

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Section Title: Presenting Distance**Instructions:****MEASUREMENT OF PRESENTING DISTANCE VISUAL ACUITY**

To measure distance visual acuity: Move the participant so that he/she is sitting 2 meters away from visual acuity chart (use tape markings on the floor as a guide). While wearing glasses or contacts as needed, using ONE eye at the same time (cover other eye with eye cover).

Start by testing the participant's RIGHT EYE. Ensure that the test chart #1 is being used. Cover the left eye while testing the right eye. Ask the participant to read the smallest line they can comfortable read. Ensure that the participant reads every letter possible on that line and on each line down the chart.

Stop the testing when the participant indicates that they can no longer see letters on the chart OR when they miss 3 or more letters on a line. When the test is completed, sum the total number of letters read for the entire chart.

Record the number of letters read correctly on each row, and assign a sum of 5 for the rows above the first line read. For example, if the participant can comfortably read letters on the third row of the chart, then start the testing on this row and move down. In this example, a row sum of 5 would be assigned to rows 1 and 2.

RIGHT EYE Number of letters read correctly (out of 5)

N ... C ... K ... Z ... O .. Row 1 ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 Click to deselect entry

R ... H ... S ... D ... K .. Row 2 ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 Click to deselect entry

D ... O ... V ... H ... R .. Row 3 ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 Click to deselect entry

C ... Z ... R ... H ... S .. Row 4 ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 Click to deselect entry

O ... N ... H ... R ... C .. Row 5 ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 Click to deselect entry

D ... K ... S ... N ... V .. Row 6	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
Z ... S ... O ... K ... N .. Row 7	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
C ... K ... D ... N ... R .. Row 8	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
S ... R ... Z ... K ... D .. Row 9	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
H ... Z ... O ... V ... C .. Row 10	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
N ... V ... D ... O ... K .. Row 11	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
V ... H ... C ... N ... O .. Row 12	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
S ... V ... H ... C ... Z .. Row 13	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
O ... Z ... D ... V ... K .. Row 14	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry

How many TOTAL letters were read correctly with the RIGHT EYE?

(add up totals from each row) (range 0-70)

Was distance ETDRS visual acuity checked in the RIGHT EYE? ☐ Yes ☐ No Click to deselect entry Reason not done

- ☐ Physical problems
- ☐ Cognitive problems
- ☐ Physical and cognitive
- ☐ Refused*
- ☐ Technical problems

NEXT, test the participant's LEFT EYE. Switch to test chart #2. Cover the right eye while testing the left eye. Ask the participant to read the smallest line they can comfortable read. Ensure that the participant reads every letter possible. Record the number of letters read correctly on each row, and assign a sum of 5 for the rows above the first line read. For example, if the participant can comfortably read letters on the third row of the chart, then start the testing on this row and move down. In this example, a row sum of 5 would be assigned to rows 1 and 2.

Stop the testing when the participant indicates that they can no longer see letters on the chart OR when they miss 3 or more letters on a line. When the test is completed, sum the total number of letters read for the entire chart.

LEFT EYE Number of letters read correctly (out of 5)

D ... S ... R ... K ... N .. Row 1	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
C ... K ... Z ... O ... H .. Row 2	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
O ... N ... R ... K ... D .. Row 3	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
K ... Z ... V ... D ... C .. Row 4	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
V ... S ... H ... Z ... O .. Row 5	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
H ... D ... K ... C ... R .. Row 6	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
C ... S ... R ... H ... N .. Row 7	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
S ... V ... Z ... D ... K .. Row 8	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
N ... C ... V ... O ... Z .. Row 9	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
R ... H ... S ... D ... V .. Row 10	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
S ... N ... R ... O ... H .. Row 11	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
O ... D ... H ... K ... R .. Row 12	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
Z ... K ... C ... S ... N .. Row 13	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
C ... R ... H ... D ... V .. Row 14	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry

How many TOTAL letters were read correctly with the LEFT EYE?

(add up totals from each row) (range 0-70)

Was distance ETDRS visual acuity checked in the LEFT EYE? ☐ Yes ☐ No Click to deselect entry

Reason not done

- ☐ Physical problems
- ☐ Cognitive problems
- ☐ Physical and cognitive
- ☐ Refused*
- ☐ Technical problems

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Section Title: Autorefracted Distance**Instructions:****MEASUREMENT OF AUTOREFRACTED DISTANCE VISUAL ACUITY**

Instruct participant to remove glasses or contact lenses (lens cases and saline are available to remove contact lenses).

Adjust the height of the chinrest with the up/down buttons so that the participant's eyes are aligned with the eye level marker on the outside of the head rest.

START BY MEASURING THE RIGHT EYE - slide machine to right.

Give the following instructions. "Look through the measuring window. You will see the picture of a balloon. Look at the center of it without straining."

Move to LEFT EYE

REPEAT steps 8 - 15

"We will now measure your visual acuity when the best lens correction is placed in front of the eye by the machine."

Ask the participant if they can read the letters on the chart.

a. According on the participant's response, press the chart up button or chart down button (see table below).

b. Record responses.

c. Continue moving "down" the chart until participant misses 3 or more letters/numbers on a line or states they cannot see the letters/numbers on the line.

d. Ensure that the participant reads every letter possible.

e. Record the number of letters/numbers read correctly on each row, and assign a sum of 5 for the rows above the first line read.

When to move the chart UP:

Participant could not read the letters/numbers presented.

Move up one line by pressing the "chart up" button once.

When to move the chart DOWN

Participant could read at least 3 letters/numbers on the line.

Continue with testing moving down one line on the chart.

Stop the testing when the participant indicates that they can no longer see letters on the chart OR when they miss 3 or more letters on a line. When the test is completed, sum the total number of letters read for the entire chart. Switch to the participants RIGHT EYE, and bring the RIGHT EYE into focus.

REPEAT STEP 21-23

Press the return button to exit corrected visual acuity mode to AR mode.

RIGHT EYE Number of letters read correctly (out of 5)

2 ... 5 ... 0 ... P ... H .. Row 1	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
8 ... 2 ... V ... D ... F .. Row 2	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
9 ... 6 ... K ... R ... H .. Row 3	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
5 ... 8 ... P ... O ... E .. Row 4	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
6 ... 2 ... C ... N ... K .. Row 5	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
8 ... 9 ... R ... P ... O .. Row 6	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
2 ... 5 ... D ... H ... V .. Row 7	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
7 ... 3 ... N ... Z ... U .. Row 8	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry

How many TOTAL letters were read correctly with the RIGHT EYE?

(add up totals from each row) (range 0-40) Click to deselect entry

Was distance AR visual acuity checked in the RIGHT EYE? ☐ Yes ☐ No Click to deselect entry Reason not done

- ☐ Physical problems
- ☐ Cognitive problems
- ☐ Physical and cognitive
- ☐ Refused*
- ☐ Technical problems

LEFT EYE Number of letters read correctly (out of 5)

2 ... 5 ... 0 ... P ... H .. Row 1	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
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8 ... 2 ... V ... D ... F .. Row 2	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
9 ... 6 ... K ... R ... H .. Row 3	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
5 ... 8 ... P ... O ... E .. Row 4	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
6 ... 2 ... C ... N ... K .. Row 5	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
8 ... 9 ... R ... P ... O .. Row 6	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
2 ... 5 ... D ... H ... V .. Row 7	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry
7 ... 3 ... N ... Z ... U .. Row 8	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Click to deselect entry

How many TOTAL letters were read correctly with the LEFT EYE?

(add up totals from each row)

(range 0-40)

Was distance AR visual acuity
checked in the LEFT EYE?

☐ Yes ☐ No

Click to deselect entry

Reason not done

- ☐ Physical problems
- ☐ Cognitive problems
- ☐ Physical and cognitive
- ☐ Refused*
- ☐ Technical problems

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Section Title: Binocular Contrast Sensitivity**Instructions:****MEASUREMENT OF BINOCULAR CONTRAST SENSITIVITY**

To measure contrast sensitivity: Have participant sit 1 meter away from contrast sensitivity chart (use tape markings on the floor to determine distance). While wearing glasses or contacts as needed, using both eyes at the same time, ask the participant to read every letter on the chart with the "H". Stop the testing when the participant indicates that they can no longer see the letters on the chart.

Record the letters read correctly on each line by putting an 'X' or '/' through each correctly read letter. Then, sum the number of correctly read letters for each row. Use these row totals to determine the total number of letters read correctly on the entire chart.

Number of letters read correctly (out of 6)

H ... S ... Z D ... S ... N .. Row ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 Click to deselect entry

1

C ... K ... R Z ... V ... R .. Row ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 Click to deselect entry

2

N ... D ... C O ... S ... K .. Row ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 Click to deselect entry

3

O ... Z ... K V ... H ... Z .. Row ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 Click to deselect entry

4

N ... H ... O N ... R ... D .. Row ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 Click to deselect entry

5

V ... R ... C O ... V ... H .. Row ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 Click to deselect entry

6

C ... D ... S N ... D ... C .. Row ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6
7

Click to deselect entry

K ... V ... Z O ... H ... R .. Row ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6
8

Click to deselect entry

How many TOTAL letters were read correctly?

(add up totals from each row)

(range 0-48)

Was contrast sensitivity checked? ☐ Yes ☐ No

Click to deselect entry

Reason not done

☐ Physical problems

☐ Cognitive problems

☐ Physical and cognitive

☐ Refused*

☐ Technical problems

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Section Title: Stereopsis*Instructions:*