Stereo Optical Company Vision Tester Slide Package:

Driver Rehabilitation Slide Package

For complete vision screening needs. Ideal for School, Athletic Physicals, Employment Physicals, Driver Licensing Exams, D.O.T., and General Check-Ups.

Slide # 1: 2000-003 Slide # 2: 2000-010 Slide # 3: 2000-007 Slide # 4: 2000-012 Slide # 5: 2000-025 Slide # 6: 2000-013 Slide # 7: 2000-024 Slide # 8: 2000-087 Slide # 9: 2000-004 Slide # 10: 2000-065 Slide # 11: 2000-148 Slide # 12: 2000-149



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Slide 2000-003 "FAR" VISUAL ACUITY LETTERS

- 1. Dial at 1 (Yellow) indicator.
- 2. Far Point switch illuminated 4



3. Right and Left eye switches illuminated \mathbf{A}^{L}

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] ZN	RO	'		RO	HΚ
2 RKS	HNC		2	HNC	zod
3 НСОУ	SKZO		3	SKZO	RNDS
4 ZROD	N S C H		4	NSCH	vzкы
5 кнвс	0 Z N R		5	OZNR	DNVC
6 • N H Z Y	окнев		6	ркнов	K D 5 0 N

QUESTION: How many columns of letters do you see?

SCORING: The answer is 3. Ask the subject to read line 5 completely. If this is correct, proceed to line 6, if correct proceed to line 7, if correct, the subject has 20/20 vision or better, at FAR point for the right eye, left eye and both eyes together. The correct scoring key is printed on the record form

Two or more letters incorrectly identified on any line (3 to 7) is considered a FAIL for that acuity level IN THAT COLUMN. A different acuity reading for each column is possible. The center column is critical because this is the binocular acuity test, while the right and left columns are monocular acuity tests.

Some binocular irregularities that can occur are:

- 1. Either right or left column appears fuzzy or blurred.
- 2. A complete lack of targets in either right or left column will indicate a vision problem.
- 3. An intermittent disappearance of targets in either the right or left column.
- 4. Failure to fuse the right and left eve area of the slide into three columns of letters.

A monocular acuity test can be administered on the right or left eye by switching off the eye not being tested. When testing only one eye, the subject will only see two columns of letters.

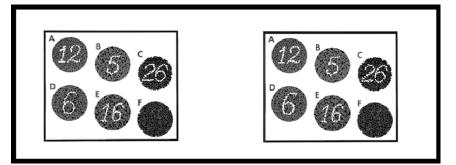
LINE	E/ACUITY	LEFT EYE	BOTH EYES	RIGHT EYE
1	20/200	ZN	RO	ΗК
2	20/100	RKS	HNC	ZOD
3	20/70	HCDV	SKZO	RNDS
4	20/50	ZROD	NSCH	VZKN
5	20/40	KHSC	OZNR	DNVC
6	20/30	ONRZV	DKHCS	KDSON
7	20/20	SDCHN	VRZKO	HSNRD

Slide 2000-010 "FAR" COLOR PERCEPTION

- 1. Dial at 2 (Yellow) indicator.
- 2. Far Point switch illuminated \clubsuit



3. Right and Left eye switches illuminated \mathbf{A}^{L}



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This test is a screening for color perception. It will identify deficiencies, but it does not classify them. Six Pseudo-Isochromatic Ishihara Plates are accurately and authentically reproduced for this test. This test is set for a minimal visual acuity of 20/70. If a subject has 20/70 acuity or lower, the subject could fail the test because of low vision, not poor color perception.

QUESTION: Can you identify the numerals in each circle, starting with A?

SCORING: There are a total of 8 numerals in the six circles. For normal color vision, circle F has no numerals in it, color deficients will read a 5. Color-normal subjects will answer the 8 numerals correctly and state there is nothing in circle F. 5 out of 8 numerals correct is mild color deficiency.

For the F.A.A. examination class, I, II, and III the applicant must identify all 8 numerals correctly.

TARGET	A= 1 2	B= 5	C= 2 6	D= 6	E=1 6	F=Blank	
minoli	11 12	B 0	0 20	D 0	E 10	I Diam	

Slide 2000-007 "NEAR" VISUAL ACUITY LETTERS

- 1. Dial at 3 (Blue) indicator.
- 2. Near Point switch illuminated
- 3. Right and Left eye switches illuminated \mathbf{o}^{L}

	_
1 SVC NRK	I NRK HZO
2 RNZH DOKV	2 DOKY CSZN
3 CKVD SNZR	3 SNZR DOHC
4 YHRN 005K	4 005K NZC5
5	S S S S S S S S S S
6	6

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QUESTION: How many columns of letters do you see?

SCORING: The Answer is 3. Ask the subject to read line 4 completely. If correct, proceed to line 5, if correct, proceed to line 6. If line 6 is correct, the subject has 20/20 vision or better at NEAR point for the right eye, left eye, and both eyes together. The correct scoring key is printed on the record form.

Two or more letters incorrectly identified on line (3 to 6) is considered a FAIL for that acuity level IN THAT COLUMN. A different acuity reading for each column is possible. The center column is critical because this is the binocular acuity test, while the right and left columns are monocular acuity tests.

Some binocular irregularities that can occur are:

- 1. Either right or left column appears fuzzy and blurred.
- 2. A complete lack of targets in either right or left column will indicate a vision problem.
- 3. An intermittent disappearance of targets in either the right or left column.
- 4. Failure to fuse the right and left eye area of the slide into three columns of letters.

A monocular acuity test can be administered on the right or left eye by switching off the eye not being tested. When testing only one eye, the subject will only see two columns of letters.

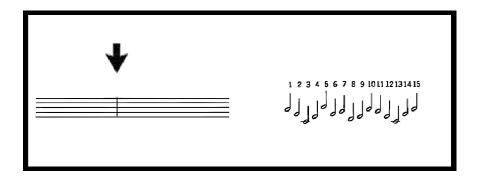
LINE	E/ACUITY	LEFT EYE	BOTH EYES	RIGHT EYE
1	20/100	SVC	NRK	ΗΖΟ
2	20/70	RNZH	DOKV	CSZN
3	20/50	CKVD	SNZR	DOHC
4	20/40	VHRN	ODSK	NZCS
5	20/30	HSKRC	NZDOV	ZSHNK
6	20/20	ZONVR	HCSKD	VKCDS

Slide 2000-012 "FAR" LATERAL PHORIA

- 1. Dial at 4 (Yellow) Indicator.
- 2. Far Point switch illuminated



3. Right eye switch illuminated



This test measures the relative posture of the eyes in the lateral plane. The left eye sees a musical staff with a prominent arrow. The right eye sees numbered notes. With both eyes open, the subject will fuse the notes onto the staff. The arrow should point to the musical note #8.

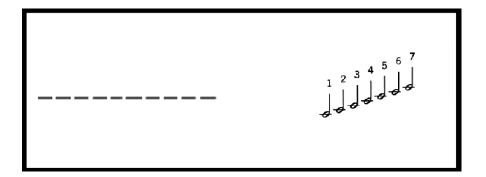
QUESTION: Do you see a series of musical notes? If yes, ask how many.

SCORING: The answer is 15. Tell the subject that a musical staff with a white arrow will appear. Simultaneously, turn the LEFT eye switch ON and ask which note the arrow is pointing to. The subject's initial response is the answer you are looking for. The arrow pointing to #8 is ideal, or orthophoric, pointing between 3.5 and 12.5 is the accepted norm. 1 to 8 indicates esophoria, 8 to 15 indicates exophoria. Each number represents one prism diopter of power.

NOTE: This test cannot be given to a subject with vision in only one eye. This is a binocular test only.

Slide 2000-025 "FAR" VERTICAL PHORIA

- 1. Dial at 5 (Yellow) indicator.
- 2. Far Point switch illuminated
- 3. Right eye switch illuminated



This test measures the relative posture of the eyes in the vertical plane. Musical notes are seen with the right eye, the series of red dashes with the left. Record the number of the notes through which the red line passes. The note precisely across from the red line is #4.

QUESTION: Do you see a series of musical notes? If yes, ask how many?

SCORING: Get the subject's initial response. The answer is 7. Tell the subject a red broken line will appear. Simultaneously turn the LEFT eye switch ON.

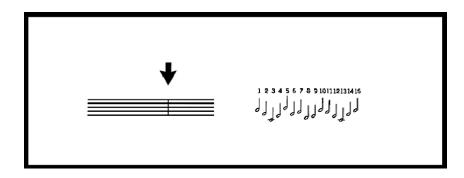
QUESTION: The line crosses the round part of which note?

SCORING: The subject's initial response is the answer you are looking for. The red broken line passing through note #4 is ideal or orthophoric. Anywhere from 2.5 to 5.5 is the accepted norm. If the subject complains of movement, ask where the line was first seen. Each number represents one half prism diopter of power, 1 to 4 indicates left hyperphoria, 4 to 7 indicates right hyperphoria.

NOTE: This test cannot be given to a subject with vision in only one eye. This is a binocular test only.

SLIDE 2000-013 "NEAR" LATERAL PHORIA

- 1. Dial at 6 (Blue) Indicator.
- 2. Near Point switch illuminated
- 3. Right Eye switch illuminated



This test measures the relative posture of the eyes in the lateral plane. The left eye sees a musical staff with a prominent arrow. The right eye sees numbered notes. With both eyes open, the subject will fuse the notes onto the staff. The arrow should point to the musical note #8.

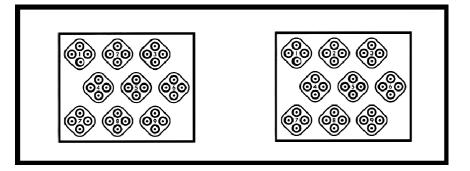
QUESTION: Do you see a series of musical notes? If yes, ask how many?

SCORING: The answer is 15. Tell the subject a musical staff with a white arrow will appear. Simultaneously, turn the LEFT eye switch ON and ask the test subject which note the arrow is pointing to. The subject's initial response is the answer you are looking for. The arrow pointing to #8 is ideal, or orthophoric, pointing between 3.5 and 12.5 is the accepted norm. 1 to 8 indicates esophoria, 8 to 15 indicates exophoria. Each number represents 1.5 prism diopter of power.

NOTE: This test cannot be given to a subject with vision in only one eye. This is a binocular test only.

Slide 2000-024 "FAR" STEREO DEPTH PERCEPTION

- 1. Dial at 7 (Yellow) indicator.
- 2. Far Point switch illuminated 4
- 3. Right and Left eye switches illuminated \mathbf{O}^{L}



This test measures binocularity. In order to perceive depth perception, both eyes are required to work together. Omit this test if there is little or no vision in one eye. The ability to judge relative distances without the aid of monocular clues is the goal of this stereotest. The difficulty in identifying the "floating" ring increases in each of the nine steps in this series.

QUESTIONS: Study target #1. Does the bottom ring seem to be floating toward you? If the answer is YES, proceed with: In target #2, which ring is floating toward you? #3, #4? This test requires a little extra time, so being patient is extremely important. On occasion, the subject with good acuity scores will fail to fuse the left and right eye patterns and experience an overlapping of images. Turn the dial back to a test where the subject can stabilize fusion, then proceed.

SCORING: Reading all the circles correctly through #9 is normal depth perception. Correctly answering the circles through #5 is acceptable depth perception. When the subject misses two consecutive circles, use the last correct answer as the score.

1 B	2 L	3 B	4 T	5 T	6 L	7 R	8 L	9 R	TARGET
400	200	100	70	50	40	30	25	20	Angle of Stereopsis in seconds of arc
15	30	50	60	70	75	82	90	95	Shepard-Fry Percentages

STEREO DEPTH KEY

The angle of Stereopsis: A defined depth, the greater the number, the more obvious the stereopsis.

Shepard-Fry Percentages: The amount of visual efficiency required to determine a particular angle of stereopsis-85% is considered average.

Slide 2000-087 "FAR" FUSION TEST

- 1. Dial at 8 (Yellow) indicator.
- 2. Far Point switch illuminated
- 3. Right and Left eye Switches illuminated

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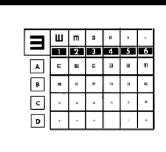
QUESTION: How many boxes do you see?

SCORING: Left eye sees a red box and a white box. Right eye sees a white box and a blue box. Together, both eyes should see <u>THREE</u> boxes. Red on top, white in the middle, and blue on the bottom.

Any other combination is a "FAIL".

Slide 2000-004 "FAR" VISUAL ACUITY TUMBLING "E"

- 1. Dial at 9 (Yellow) indicator.
- 2. Far Point switch illuminated 4
- 3. Left eye switch illuminated \mathbf{O}



20/200 20/100 20/70 20/50 20/40 20/30 20/30

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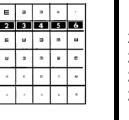
Ε

A

в

c

D



20/50 20/40 20/30 20/20

Left Eye	
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L	Т	В	L	R	L	Т
	1	2	3	4	5	6
Α	R	Т	R	L	Т	В
В	В	R	В	L	L	R
С	L	Т	Т	L	R	В
D	R	L	Т	L	В	Т

Гор						
R	В	R	L	L	Т	В
	1	2	3	4	5	6
А	L	R	Т	L	В	Т
В	Т	Т	L	В	Т	R
С	L	В	R	R	L	Т
D	R	Т	R	L	Т	В

QUESTION: Ask the subject to identify the direction the E's are pointing: Top, Bottom, Right or Left, in the top line, starting with the largest E. Confirm the last correct answer by having the subject read the corresponding line A,B,C, or D.

For example: The subject has read through #4 correctly, 20/40 vision. The subject should then read line B (20/40)

SCORING: The correct reading of four of the six symbols confirms 20/40 vision. Proceed to line C, a correct reading of four of the six symbols will confirm 20/30. Then proceed to line D with the same format. If read correctly, the subject has 20/20 vision.

- 1. Dial at 9 (Yellow) indicator.
- 2. Far Point switch illuminated



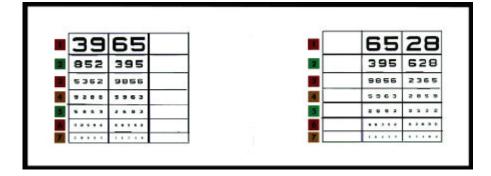
R

3. Right eye switch illuminated

Proceed as in Left Eye Testing

Slide 2000-065 "FAR" VISUAL ACUITY NUMBERS

- 1. Dial at 10 (Yellow) indicator
- 2. Far Point switch illuminated **#**²
- 3. Right and Left eye switches illuminated 👁



Questions: "How many columns of numbers do you see?" The answer is 3. Ask the subject to read line 5 completely. If this is correct, proceed to line 6, if correct proceed to line 7, if correct, the subject has 20/20 vision or better, at FAR point for the right eye, left eye and both eyes together. The correct scoring key is printed on the record form.

Two or more numbers incorrectly identified on any line (3 to 7) PER COLUMN is considered a FAIL for that acuity level IN THAT COLUMN.

A different acuity reading for each column is possible. The center column is critical because this is the binocular acuity test, while the right and left columns are monocular acuity tests.

A monocular (only) acuity test can be administered on the right or left eye by occluding the eye not being tested. With one eye occluded, the subject will only see two columns with numbers.

Some of the binocular irregularities that can occur are:

- 1. Either right or left column appears fuzzy or blurred.
- 2. A complete lack of targets in either right and left column will indicate a vision problem.
- 3. An intermittent disappearance of targets in either the right or left column.
- 4. Failure to fuse the right and left eye area of the slide into three columns of numbers.

LINE/ACUITY	LEFT EYE	BOTH EYES	RIGHT EYE
1 20/200 Re	ed 39	6 5	28
2 20/100 Gr	een 852	395	628
3 20/70 Re	d 5362	9856	2365
4 20/50 An	nber 9286	5963	2859
5 20/40 Gr	een 5869	2683	9532
6 20/30 Re	d 32596	68352	82635
7 20/20 An	nber 29865	35269	65382

SLIDE 2000148 ROAD SIGN RECOGNITION & STEREO DEPTH PERCEPTION TEST

- 1. Dial 11 at YELLOW Indicator.
- 2. Far Point switch illuminated.
- 3. Right and Left Eye switches illuminated.

This test measures the ability to recognize traffic signs and depth perception. First, have the test subject identify each sign. Secondly, ask the test subject, "Which signs are floating towards you"?.

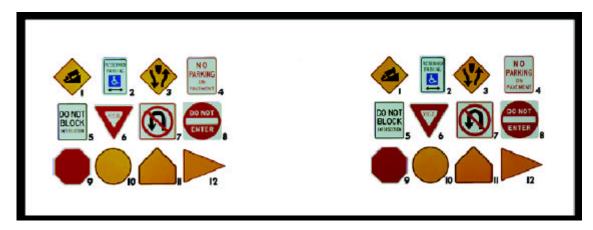
SIGN RECOGNITION - QUESTION: CAN YOU IDENTIFY EACH SIGN?

- 1. Hill
- 2. Handicapped Parking
- 3. Divided Highway
- 4. No Parking
- 5. Regulation
- 6. Yield

- 7. No U Turn
- 8. Do Not Enter
- 9. Stop Sign (Red Octagon)
- 10. Railroad Crossing (Yellow Circle)
- 11. School Zone (Yellow Pentagon)
- 12. No Passing (Yellow Triangle)

DEPTH PERCEPTION - QUESTION: WHICH SIGNS ARE FLOATING TOWARDS YOU?

- #3 Divided Highway (581 Seconds of Arc)
- #6 Yield (323 Seconds of Arc)
- #11 School Zone (145 Seconds of Arc)
- ALL THREE TARGETS MUST BE ANSWERED CORRECTLY, OR IT IS A FAIL. The angle of Stereopsis: A defined depth, the greater the number, the more obvious the stereopsis.



Slide 2000-149 "FAR" Color Identification

- 1. Dial 12 at YELLOW indicator.
- 2. FAR Point switch illuminated
- 3. Right and Left switches illuminated \mathbf{a}^{L}

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This test consists of 4 lines of circles each with a number in the center. Each row has a circle with the colors blue, red, amber and green present.

QUESTION: Ask the subject to read what colors are in each numbered circle.

SCORING: The subject must answer all four correctly in a given line to pass the test. Any missed circles in any given line is a fail.

LINEA	1=AMBER	2=GREEN	3=RED	4=BLUE
LINE B	1=RED	2=AMBER	3=BLUE	4=GREEN
LINE C	1=GREEN	2=BLUE	3=AMBER	4=RED
LINE D	1=BLUE	2=RED	3=GREEN	4=AMBER



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