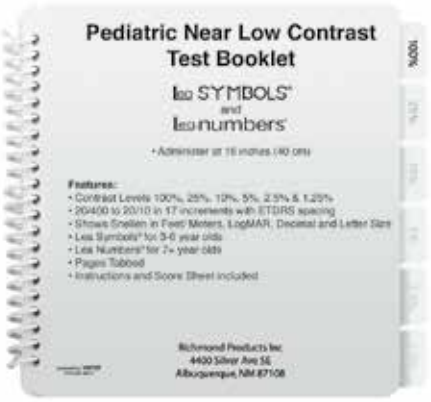
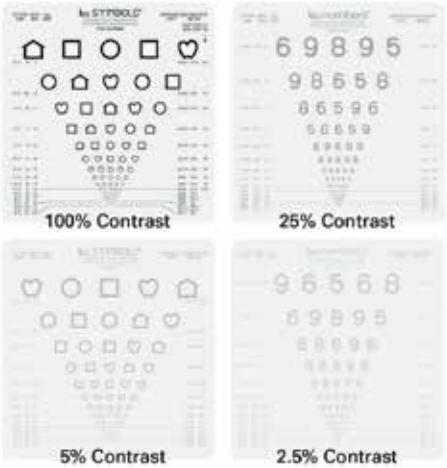
Pediatric Near Contrast Test

Part Number: 610800





Key Features:

- Contrast Levels 100%, 25%, 10%, 5%, 2.5% and 1.25%
- Both LEA NUMBERS® and LEA NUMBERS®
- 20/400 to 20/10 in 17 increments
- Shows Snellen in Feet/ Meters, LogMAR, Decimal and Letter Size
- Pages tabbed at each contrast level
- Instructions, Score Card, Recording Form and Answer Key

Near Contrast testing can provide an efficient means to detect or track ocular pathologies, including glaucoma, ARMD, diabetic retinopathy, cataract, and keratoconus. Low contrast acuity loss measurement can also be helpful in demonstrating to patients and their families the need for intervention such as cataract surgery or occupational and lifestyle changes. Good-Lite has developed the Pediatric Near-Contrast Test Booklet with contrast sensitivity levels of 100, 25, 10, 5, 2.5 and 1.25 percent using Michelson measures. These are printed on high-quality styrene plastic for long term durability. Each contrast level has LEA Symbols and LEA Numbers. This test provides additional capabilities compared to the Holladay Functional Acuity Contrast Test (F.A.C.T.™), which is currently unavailable.

Prerequisites:

Accurate maintenance of the test distance is very important: 40 cm (16 inches). The attached answer key can be used so you can follow along with the patient. Luminance should be 85 +/- 25 cd/m², which is approximately a photographic exposure of 1/30 to 1/60 second at f2.8 with an film rating of 200 ASA. Testing is accomplished monocularly and scored separately. Encourage the patient to take their time and give them 5 to 10 seconds to point to a matching card or read aloud each line.

In general, the LEA Symbols are recommended for children 3 to 5 years old. They should be given a pre-test to insure they are familiar with the LEA Symbols and can match them to a Symbol Key or can verbally identify each Symbol. The LEA Symbols puzzle can provide an effective method to help the child gain familiarity with the LEA Symbols.

The LEA Numbers are recommended for children 5 to 8 years old (with normal development). The child should be tested briefly to determine if they know their numbers reliably enough to use the LEA Numbers.

Contrast Level - LEA Symbols or LEA Numbers Charts:

1. Have the patient read each row of the acuity chart starting with 100% contrast. Record the number of errors on each line on the score sheet provided. Continue to test each line and give credit for any correct LEA Symbols or LEA Numbers to the last row.
2. Change to the next page (thus decreasing the level of contrast) and record in the appropriate column the number of LEA Symbols or LEA Numbers read in error in a manner similar to step 1.
3. Repeat the contrast charts recording results for the other eye.
4. Using the results from the Score Sheet, plot the Total Points on the Recording Form for each eye. Record OD with ‘R’, to indicate the last line read correctly for each level of contrast, such as 25% 20/40, etc. Repeat for OS marking results with ‘L’. Use ‘B’ if both eyes have the same result. (see example attached).
5. Connect the ‘R’s, B’s and ‘L’s to determine the Contrast vs Acuity level trend line. 6. Compare the trend line to the shaded area which defines ‘Normal’ contrast sensitivity.

Overall comparison of the raw data OD to OS can be very revealing. Further insight can be gained by comparison to previous test results to discover any trends. Consult more extensive documentation on Contrast Sensitivity to make further comparisons to normal contrast sensitivity profiles.

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Completed Recording Form Example for Pediatric Near Contrast

Use this sheet to interpret the raw scores from the Charts on the score sheet.
Make copies as needed.

Patient Name:_____ **Date:**_____

Note: Use separate symbols for each eye:
Mark OD point total with 'R' in the appropriate scale for each contrast level
Mark OS point total with 'L' in the appropriate scale for each contrast level

Contrast Level

Acuity	LogMAR	Points	100%	25%	10%	5%	2.5%
20/400	1.3	5					
20/320	1.2	10					R
20/250	1.1	15					
20/200	1.0	20					
20/160	0.9	25					
20/125	0.8	30					L
20/100	0.7	35					
20/80	0.6	40					
20/63	0.5	45					
20/50	0.4	50					
20/40	0.3	55					
20/32	0.2	60					
20/25	0.1	65					
20/20	0.0	70					
20/16	-0.1	75					
20/12.5	-0.2	80					
20/10	-0.3	85					

610800 - Pediatric Near Contrast Test 100%

Testing distance of 16in/40cm

Letter Size	Decimal	LogMAR		Distance Equivalents Foot	Meter	Diopters
8.0M	.05	1.3		20/400	6/120	20D
6.3M	.063	1.2		20/320	6/95	15D
5.0M	.08	1.1		20/250	6/75	12D
4.0M	.10	1.0		20/200	6/60	10D
3.2M	.12	0.9		20/160	6/48	8D
2.5M	.16	0.8		20/125	6/38	6D
2.0M	.20	0.7		20/100	6/30	5D
1.6M	.25	0.6		20/80	6/24	4D
1.25M	.32	0.5		20/63	6/19	3D
1.0M	.40	0.4		20/50	6/15	2.5D
.80M	.50	0.3		20/40	6/12	
.63M	.63	0.2		20/32	6/9.5	
.50M	.80	0.1		20/25	6/7.5	
.40M	1.0	0.0		20/20	6/6	
.32M	1.25	-0.1		20/16	6/4.8	
.25M	1.6	-0.2		20/12.5	6/3.8	
.20M	2.0	-0.3		20/10	6/3	

610800 - Pediatric Near Contrast Test 100%

Testing distance of 16in/40cm

Letter Size	Decimal	LogMAR		Distance Equivalents Foot	Meter	Diopters
8.0M	.05	1.3	5 9 8 9 6	20/400	6/120	20D
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2.0M	.20	0.7	6 9 5 8 5	20/100	6/30	5D
1.6M	.25	0.6	9 6 8 5 9	20/80	6/24	4D
1.25M	.32	0.5	5 9 6 9 8	20/63	6/19	3D
1.0M	.40	0.4	6 8 9 6 5	20/50	6/15	2.5D
.80M	.50	0.3	8 9 8 5 6	20/40	6/12	
.63M	.63	0.2	9 8 5 6 9	20/32	6/9.5	
.50M	.80	0.1	8 9 6 5 8	20/25	6/7.5	
.40M	1.0	0.0	5 6 9 8 6	20/20	6/6	
.32M	1.25	-0.1	6 5 8 9 8	20/16	6/4.8	
.25M	1.6	-0.2	9 6 5 8 9	20/12.5	6/3.8	
.20M	2.0	-0.3	8 5 6 9 5	20/10	6/3	

610800 - Pediatric Near Contrast Test 25%

Testing distance of 16in/40cm

Letter Size	Decimal	LogMAR		Distance Equivalents Foot	Meter	Diopters
8.0M	.05	1.3		20/400	6/120	20D
6.3M	.063	1.2		20/320	6/95	15D
5.0M	.08	1.1		20/250	6/75	12D
4.0M	.10	1.0		20/200	6/60	10D
3.2M	.12	0.9		20/160	6/48	8D
2.5M	.16	0.8		20/125	6/38	6D
2.0M	.20	0.7		20/100	6/30	5D
1.6M	.25	0.6		20/80	6/24	4D
1.25M	.32	0.5		20/63	6/19	3D
1.0M	.40	0.4		20/50	6/15	2.5D
.80M	.50	0.3		20/40	6/12	
.63M	.63	0.2		20/32	6/9.5	
.50M	.80	0.1		20/25	6/7.5	
.40M	1.0	0.0		20/20	6/6	
.32M	1.25	-0.1		20/16	6/4.8	

610800 - Pediatric Near Contrast Test 25%

Testing distance of 16in/40cm

Letter Size	Decimal	LogMAR		Distance Equivalents Foot	Meter	Diopters
8.0M	.05	1.3	6 9 8 9 5	20/400	6/120	20D
6.3M	.063	1.2	9 8 6 5 8	20/320	6/95	15D
5.0M	.08	1.1	8 6 5 9 6	20/250	6/75	12D
4.0M	.10	1.0	5 8 6 5 9	20/200	6/60	10D
3.2M	.12	0.9	6 9 5 8 5	20/160	6/48	8D
2.5M	.16	0.8	5 9 8 9 6	20/125	6/38	6D
2.0M	.20	0.7	8 5 6 8 9	20/100	6/30	5D
1.6M	.25	0.6	6 9 5 6 8	20/80	6/24	4D
1.25M	.32	0.5	6 9 8 9 5	20/63	6/19	3D
1.0M	.40	0.4	5 8 6 9 6	20/50	6/15	2.5D
.80M	.50	0.3	8 6 5 9 8	20/40	6/12	
.63M	.63	0.2	6 8 6 5 9	20/32	6/9.5	
.50M	.80	0.1	9 6 5 9 8	20/25	6/7.5	
.40M	1.0	0.0	8 5 9 6 5	20/20	6/6	
.32M	1.25	-0.1	5 9 5 8 6	20/16	6/4.8	

610800 - Pediatric Near Contrast Test 10%

Testing distance of 16in/40cm

Letter Size	Decimal	LogMAR		Distance Equivalents Foot	Meter	Diopters
8.0M	.05	1.3		20/400	6/120	20D
6.3M	.063	1.2		20/320	6/95	15D
5.0M	.08	1.1		20/250	6/75	12D
4.0M	.10	1.0		20/200	6/60	10D
3.2M	.12	0.9		20/160	6/48	8D
2.5M	.16	0.8		20/125	6/38	6D
2.0M	.20	0.7		20/100	6/30	5D
1.6M	.25	0.6		20/80	6/24	4D
1.25M	.32	0.5		20/63	6/19	3D
1.0M	.40	0.4		20/50	6/15	2.5D
.80M	.50	0.3		20/40	6/12	
.63M	.63	0.2		20/32	6/9.5	
.50M	.80	0.1		20/25	6/7.5	
.40M	1.0	0.0		20/20	6/6	
.32M	1.25	-0.1		20/16	6/4.8	

610800 - Pediatric Near Contrast Test 10%

Testing distance of 16in/40cm

Letter Size	Decimal	LogMAR		Distance Equivalents Foot	Meter	Diopters
8.0M	.05	1.3	8 5 9 6 9	20/400	6/120	20D
6.3M	.063	1.2	5 9 6 8 5	20/320	6/95	15D
5.0M	.08	1.1	6 8 5 9 8	20/250	6/75	12D
4.0M	.10	1.0	9 5 9 8 6	20/200	6/60	10D
3.2M	.12	0.9	6 9 5 8 5	20/160	6/48	8D
2.5M	.16	0.8	5 9 8 9 6	20/125	6/38	6D
2.0M	.20	0.7	8 5 6 8 9	20/100	6/30	5D
1.6M	.25	0.6	6 9 5 6 8	20/80	6/24	4D
1.25M	.32	0.5	9 5 6 8 5	20/63	6/19	3D
1.0M	.40	0.4	5 9 8 6 9	20/50	6/15	2.5D
.80M	.50	0.3	8 6 9 5 6	20/40	6/12	
.63M	.63	0.2	6 9 5 8 5	20/32	6/9.5	
.50M	.80	0.1	9 6 8 5 9	20/25	6/7.5	
.40M	1.0	0.0	5 9 6 9 8	20/20	6/6	
.32M	1.25	-0.1	6 8 9 6 5	20/16	6/4.8	

610800 - Pediatric Near Contrast Test 5%

Testing distance of 16in/40cm

Letter Size	Decimal	LogMAR		Distance Equivalents Foot	Meter	Diopters
8.0M	.05	1.3		20/400	6/120	20D
6.3M	.063	1.2		20/320	6/95	15D
5.0M	.08	1.1		20/250	6/75	12D
4.0M	.10	1.0		20/200	6/60	10D
3.2M	.12	0.9		20/160	6/48	8D
2.5M	.16	0.8		20/125	6/38	6D
2.0M	.20	0.7		20/100	6/30	5D
1.6M	.25	0.6		20/80	6/24	4D
1.25M	.32	0.5		20/63	6/19	3D
1.0M	.40	0.4		20/50	6/15	2.5D
.80M	.50	0.3		20/40	6/12	
.63M	.63	0.2		20/32	6/9.5	
.50M	.80	0.1		20/25	6/7.5	
.40M	1.0	0.0		20/20	6/6	
.32M	1.25	-0.1		20/16	6/4.8	

610800 - Pediatric Near Contrast Test 5%

Testing distance of 16in/40cm

Letter Size	Decimal	LogMAR		Distance Equivalents Foot	Meter	Diopters
8.0M	.05	1.3	5 6 8 9 8	20/400	6/120	20D
6.3M	.063	1.2	6 5 9 8 9	20/320	6/95	15D
5.0M	.08	1.1	8 9 6 5 8	20/250	6/75	12D
4.0M	.10	1.0	9 6 8 9 5	20/200	6/60	10D
3.2M	.12	0.9	5 8 6 5 9	20/160	6/48	8D
2.5M	.16	0.8	6 9 5 8 6	20/125	6/38	6D
2.0M	.20	0.7	8 6 8 9 5	20/100	6/30	5D
1.6M	.25	0.6	6 8 9 5 9	20/80	6/24	4D
1.25M	.32	0.5	5 9 6 8 5	20/63	6/19	3D
1.0M	.40	0.4	6 5 8 9 8	20/50	6/15	2.5D
.80M	.50	0.3	9 6 5 8 6	20/40	6/12	
.63M	.63	0.2	8 5 9 6 9	20/32	6/9.5	
.50M	.80	0.1	5 9 6 8 5	20/25	6/7.5	
.40M	1.0	0.0	6 8 5 9 8	20/20	6/6	
.32M	1.25	-0.1	9 5 9 8 6	20/16	6/4.8	

610800 - Pediatric Near Contrast Test 2.5%

Testing distance of 16in/40cm

Letter Size	Decimal	LogMAR		Distance Equivalents Foot	Meter	Diopters
8.0M	.05	1.3		20/400	6/120	20D
6.3M	.063	1.2		20/320	6/95	15D
5.0M	.08	1.1		20/250	6/75	12D
4.0M	.10	1.0		20/200	6/60	10D
3.2M	.12	0.9		20/160	6/48	8D
2.5M	.16	0.8		20/125	6/38	6D
2.0M	.20	0.7		20/100	6/30	5D
1.6M	.25	0.6		20/80	6/24	4D
1.25M	.32	0.5		20/63	6/19	3D
1.0M	.40	0.4		20/50	6/15	2.5D
.80M	.50	0.3		20/40	6/12	
.63M	.63	0.2		20/32	6/9.5	
.50M	.80	0.1		20/25	6/7.5	
.40M	1.0	0.0		20/20	6/6	
.32M	1.25	-0.1		20/16	6/4.8	

610800 - Pediatric Near Contrast Test 2.5%

Testing distance of 16in/40cm

Letter Size	Decimal	LogMAR		Distance Equivalents Foot	Meter	Diopters
8.0M	.05	1.3	9 6 5 6 8	20/400	6/120	20D
6.3M	.063	1.2	6 9 8 9 5	20/320	6/95	15D
5.0M	.08	1.1	5 8 6 9 6	20/250	6/75	12D
4.0M	.10	1.0	8 6 5 9 8	20/200	6/60	10D
3.2M	.12	0.9	6 8 6 5 9	20/160	6/48	8D
2.5M	.16	0.8	9 6 5 9 8	20/125	6/38	6D
2.0M	.20	0.7	8 5 9 6 5	20/100	6/30	5D
1.6M	.25	0.6	5 9 5 8 6	20/80	6/24	4D
1.25M	.32	0.5	6 9 8 9 5	20/63	6/19	3D
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.63M	.63	0.2	5 8 6 5 9	20/32	6/9.5	
.50M	.80	0.1	6 9 5 8 5	20/25	6/7.5	
.40M	1.0	0.0	5 9 8 9 6	20/20	6/6	
.32M	1.25	-0.1	8 5 6 8 9	20/16	6/4.8	

610800 - Pediatric Near Contrast Test 1.25%

Testing distance of 16in/40cm

Letter Size	Decimal	LogMAR		Distance Equivalents Foot	Meter	Diopters
8.0M	.05	1.3		20/400	6/120	20D
6.3M	.063	1.2		20/320	6/95	15D
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.80M	.50	0.3		20/40	6/12	
.63M	.63	0.2		20/32	6/9.5	
.50M	.80	0.1		20/25	6/7.5	
.40M	1.0	0.0		20/20	6/6	
.32M	1.25	-0.1		20/16	6/4.8	

610800 - Pediatric Near Contrast Test 1.25%

Testing distance of 16in/40cm

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6.3M	.063	1.2	9 5 6 8 5	20/320	6/95	15D
5.0M	.08	1.1	5 9 8 6 9	20/250	6/75	12D
4.0M	.10	1.0	8 6 9 5 6	20/200	6/60	10D
3.2M	.12	0.9	6 9 5 8 5	20/160	6/48	8D
2.5M	.16	0.8	9 6 8 5 9	20/125	6/38	6D
2.0M	.20	0.7	5 9 6 9 8	20/100	6/30	5D
1.6M	.25	0.6	6 8 9 6 5	20/80	6/24	4D
1.25M	.32	0.5	8 9 8 5 6	20/63	6/19	3D
1.0M	.40	0.4	9 8 5 6 9	20/50	6/15	2.5D
.80M	.50	0.3	8 9 6 5 8	20/40	6/12	
.63M	.63	0.2	5 6 9 8 6	20/32	6/9.5	
.50M	.80	0.1	6 5 8 9 8	20/25	6/7.5	
.40M	1.0	0.0	9 6 5 8 9	20/20	6/6	
.32M	1.25	-0.1	8 5 6 9 5	20/16	6/4.8	