

HEARING THRESHOLDS

Begin with the Right or Better Ear 1st, Left Ear 2nd.

Introduce Tone (40 dB at 1000 Hz)

If Response, down 10 dB to 30 dB

If Response, down 10 dB to 20 dB

(Go down in increments of 10 dB until no response)

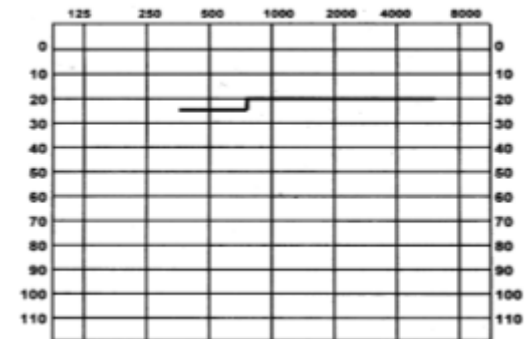
If No Response, up 5 dB to 25 dB

(Go up in increments of 5 dB until response)

The threshold for a particular Hertz is the Decibel level that is the best (or lowest number) level that the child responds to in 2 out of 3 attempts

PASS: If all threshold marks are above the bold line

REFER: If any threshold mark is on the line or below
(25/500, 20/1000, 20/2000, 20/4000, 20/8000)



HEARING SCREENING

- Ask about recent cold, earache or ear infection
- Seat the child at the proper angle
- Check for hearing aid, cotton, or drainage
- Instruct before putting on earphones
- Raise hand when sound heard;
- Hand down when sound stops
- Remove glasses, headbands, large earrings, etc
- Hair behind the ears
- Red colored earphone for Right ear
- Blue colored earphone for Left ear

Introduce the conditioning tone (40 dB at 1000 Hz)
The order to use is listed in the grey boxes

dB Level	25	20	20	20
Hz frequency	500	1000	2000	4000
Right Ear	8th	1st	2nd	3rd
Left Ear	7th	6th	5th	4th

Response	No Response	Response on Immediate Rescreen	No Response on Immediate Rescreen
√	∅	∅√	∅∅

Pass: Heard all tones the 1st time presented

Immediate Rescreen tones not heard on 1st presentation

Rescreen on a different day, not < 2 wks (best 4-6 wks)

HEARING SCREENING

**Right
Ear**

40	20	20	20
1000	1000	2000	4000

**Left
Ear**

20	20	20	25
4000	2000	1000	500

**Right
Ear**

25
500

Note: Present each pure or pulse tone giving 3-4 seconds to hear tone.

Immediate Rescreen

If the child does not respond, immediately repeat the same tone or wait until you have gone through entire sequence and return to the missed tone

Rescreen: If the child misses one or more tones on the immediate rescreen, then screen on a different day no sooner than 2 weeks (best 4-6 wks)

LEA SYMBOL CHART (at 10 Feet)

- Check with glasses on if child has prescriptive lenses, except do not wear “reading glasses”
- Use matching game, do not name symbols
- Child seated, chair back center over 10 Ft line
- Place square chart with the 4 symbols on it near child, practice with both eyes open
- Use occluder or modified glasses, cover L eye 1st, then R eye, then uncover both eyes
- Do not isolate one symbol, may point to it under the symbol with pointer or on the symbol with laser
- Point to one symbol per line until misses one
- Visual acuity result recorded as smallest line child can match all four symbols correctly

Preschool (Ages 3y and 4y)




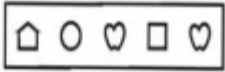

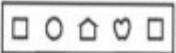
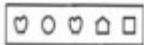





Pass with 10/20 or better and ≤ 1 -line difference between eyes

Rescreen on different day if unable to meet pass criteria or unable to cooperate

Refer-unable to meet pass criteria on 2nd screen

Kindergarten (5y and older)

Pass with 10/16 or better and ≤ 1 -line difference

10/40		20/80	
10/32		20/63	
10/25		20/50	
10/20		20/40	
10/16			20/32
10/12.5			20/25
10/10			20/20
10/8			20/16

HOTV CHART for Testing at 10 Feet

$\frac{10}{50}$	H O T V	$\frac{20}{100}$
$\frac{10}{40}$	O T O H V	$\frac{20}{80}$
$\frac{10}{30}$	T V T H O	$\frac{20}{60}$
$\frac{10}{25}$	V O H V T	$\frac{20}{50}$
$\frac{10}{20}$	O T V T H H T O V H	$\frac{20}{40}$
$\frac{10}{16}$	H O T V O T V T H O	$\frac{20}{30}$
$\frac{10}{12.5}$	T H V O H O V T H V	$\frac{20}{30}$
$\frac{10}{10}$	V O H V T V O H V T	$\frac{20}{20}$
$\frac{10}{8}$	O V T H V H V T O H	$\frac{20}{16}$

To receive credit for the passing line, the child must match all four distinct (HOTV) letters or symbols on that line. **Preschool = 10/20**
Kindergarten + = 10/16

HOTV CHART (at 10 Feet)

- Check with glasses on if child has prescriptive lenses, except do not wear “reading glasses”
- Use matching game, do not name letters
- Child seated, chair back center over 10 Ft line
- Place square chart with HOTV on it near child, practice with both eyes open
- Use occluder or modified glasses, cover L eye 1st, then R eye, then uncover both eyes
- Do not isolate one letter, may point to it under the letter with pointer or on the letter with laser
- Point to one letter per line until misses one
- Visual acuity result recorded as smallest line child can match all four letters correctly

Preschool (Ages 3y and 4y)

Pass with 10/20 or better and ≤ 1 -line difference between eyes

Rescreen on different day if unable to meet pass criteria or unable to cooperate

Refer-unable to meet pass criteria on 2nd screen

Kindergarten (5y and older)

Pass with 10/16 or better and ≤ 1 -line difference between eyes; Rescreen/Refer as above

**SNELLEN CHART
(20 feet)**

TE	20/100
PTCO	20/60
ZLPED <u> </u>	20/50
ETODCF	20/40
DPCZLFT <u> </u>	20/30
CFDTEOPL	20/25
LDCZOTEP	20/20
FPCDTZLE	20/16

To receive credit for a line:
Above red line: All letters correctly on each line
Below the red line: May miss 2 letters per line

VISUAL ACUITY

SNELLEN CHART (age 6 yrs and older)

Procedure

- ◆ Screen - prescriptive glasses on, except reading glasses
- ◆ Heels on line @ 20'
- ◆ Cover L eye first; then R eye; then both eyes uncovered
- ◆ Start on 20/50 line and proceed downward
- ◆ Do not isolate individual letters, show entire line
- ◆ Record visual acuity as last line able to correctly read

To get credit for a line:

All letters must be correct on 20/40 line and above
May miss two letters on each 20/20, 20/25, and 20/30 lines

PASS: 20/30 or better with ≤ one line difference between eyes

RESCREEN: 20/40 or worse or two line difference

REFER: Same criteria as re-screen and could not meet passing criteria on rescreen (2nd screening)

Note: If child has previously been referred and evaluated for two line difference in visual acuity between eyes and current visual acuity has not changed, do not refer a second time

PLUS LENS Using the SNELLEN Chart (**Optional**)
Omit when child wears prescriptive lenses

Procedure

- ◆ Use +2.25 lenses for grades 1-3 (ages 6-8 yrs)
- ◆ Use +1.75 lenses for grade 4 (ages 9 yrs or older)
- ◆ Cover L eye first; then R eye; then both eyes uncovered

PASS: Cannot read 20/20 line on chart with glasses on

RESCREEN: Can read 20/20 line on chart with glasses

REFER: Same criteria as rescreen and could not meet passing criteria on rescreen (2nd screening)

For clarification and more information, please refer to the
[Minnesota Department of Health Vision Screening Manual](#)