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Audiometric Screening Training



Purpose

Purpose:

- Obtain a reliable response from a young child
- Successfully perform audiometric screening tests with challenging young children

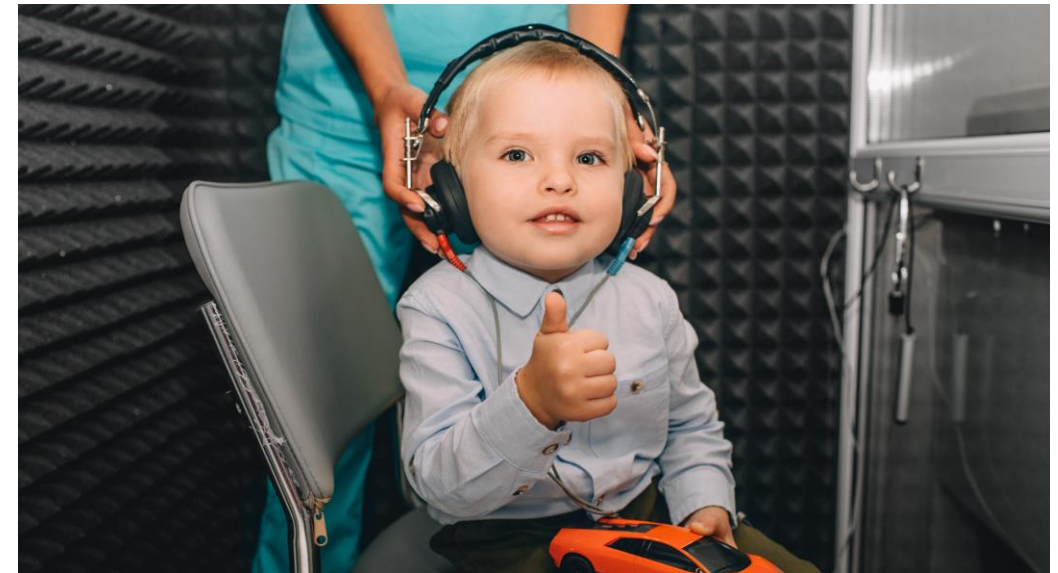
Targeted Population:

- Children 3 to 6 years of age
- Children with developmental delay
- Children who appear to be shy



Necessary Equipment

- One ANSI standard calibrated audiometer
- One basket*
- One set of 9 to 12 blocks*
- Table and chairs or the floor
- Quiet room



The Procedure

Set Up

- Place the equipment in the following order: audiometer, blocks, basket, child
- Set the audiometer is at 90dB and 4000 Hz
- Place Ear selector to RIGHT EAR
- Earphones are on the table
- Blocks and Basket are on the table
- Position the child on your dominant side



The Conditioning

Intensity at **90dB**, Frequency at 4000 Hz
Earphones Off

Audiometer Set at 50 dB & 4000 Hz

Step A:

- Introduce the Beep



Step B:

- Demonstrate the game
- You go first, the child follows (Role Model)

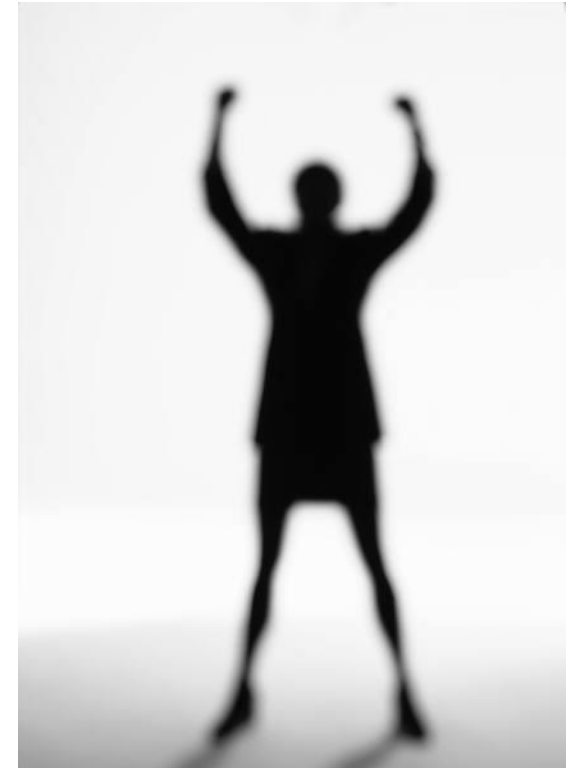
Audiometer Set at 50 dB & 4000 Hz (cont.)

Step C:

- **You both play** but let the child WIN

Step D:

- The child does it on their own
- You do not play



The Conditioning

Intensity at **50dB**, Frequency at 4000 Hz
Earphones On

Audiometer Set at 50 dB & 4000 Hz

Step E:

- Turn down the audiometer to 50dB
- Intensity is still at 4000 Hz
- Put the Earphones on*
- The child still plays on their own



Putting the Earphones On

- When you put the earphones on, **face the child**.
- Put your **fingers slightly over the cushions**, thumbs toward you
- Put the **red earphone on the child's right ear (the red earphone is in your left hand)** and blue on the child's left ear
- Then adjust the earphones for head size.

The Screening

Cooperative Child with Normal Hearing

Right Ear

- Turn down Intensity to 20/25 dB
- Frequency is still at **4000 Hz**
- **If the child responds, continue screening the Right Ear at Frequencies: 3000, 2000, 1000**



Left Ear

- Switch ear selector to **Left ear**
- **Begin** where you left off at **a frequency of 1000 Hz**
- If the child responds, continue screening the **Left Ear** for Frequencies = **2000, 3000, 4000**



Taking the Earphones Off

When removing the earphones:

- First, **use your thumbs to separate the earphones**
- Then **take the earphones off** the child

What If the Child Does Not Respond

No Response at 50 dB

Immediately Switch Ear

If the child responds:

- Turn down Intensity to 20/25 dB and stay at 4000 Hz
- If **the child continues to respond**, screen the **Left Ear** according to the procedure
- **If the child does not respond when you switch back** to the Right ear at 4000Hz & 20 or 25 dB, immediately document on the audiogram a minus (–) sign and on the medical record **Failed Hearing 4000Hz (Rt Ear)**

No Response at 50 dB

Immediately Switch Ear

If the child does not respond:

- Take the earphones off
- Turn up the AUDIOMETER to 90 dB
- Recondition the child by repeating the conditioning steps A through E
- If time allows, complete the screening
- If you are unable to finish within the 3-minute timeframe, re-schedule the child for a screening in 6 weeks

No Response at 20/25 dB

Turn up Intensity to 50 dB

If the child responds at 50 dB

- Turn down the AUDIOMETER to 20 Or 25 dB
- If the **child continues to respond**, screen the ear you are **at according to the procedure**
- Repeat this procedure **every time the child does not respond at 20 or 25 dB**
- ALWAYS reassure and encourage the child!

No Response at 20/25 dB

Turn up Intensity to 50 dB

If the child responds at 50 dB but then does not respond at 20 / 25 dB

- **Immediately document** on the **audiogram a minus (–) sign** at the appropriate **failed frequency for the related ear**
- FYI: **If the child still holds a block** when both ears have been screened at the required intensity and frequencies, **turn up the AUDIOMETER to 50 dB**
- **Let the child put their block in the basket to successfully finish the game**

Tips

From Steve Rawiszer

Steve Rawiszer's Tips

Regarding the Interrupter Switch

- Don't move any part of your body
- Don't let the child watch you press the button
- Hold down the button for the count of one Mississippi
- Make sure you change your pattern

Steve Rawiszer's Tips

- Be consistent and careful in your instructions
- Be visual, expressive, and descriptive: amplify movement so the child understands
- Do not go to the next step until the current one is understood (conditioning)
- Do not remove blocks one at a time, but empty the basket when you run out of blocks and start over

Danger Ahead

Teens & Pre-teens



NEARLY HALF of teens showing potential signs of hearing loss

46%

(ringing, roaring, buzzing or pain)

1 in 6 teens have symptoms
often or all the time

(about 5 students in the average classroom)

Breakdown of teens with at least one
symptom, often or all the time

Risky Habits

Teens know there are risks and are still
leaving their hearing unprotected

88%

Nearly 9 in 10 teens
engage in at least one
risky hearing behavior

81%

Listen to loud
music with
earphones

31%

use mowers
& other loud
tools

TEEN HEARING: DANGER AHEAD

Most teens are engaged in dangerous listening habits

Risky Habits

Teens know there are risks



of teens say parents or teachers would tell them to lower the volume, wear protective gear or just stop if they had an idea just how loud their music was.

Teens are still leaving their hearing unprotected



Listen to loud music with earphones



use mowers & other loud tools

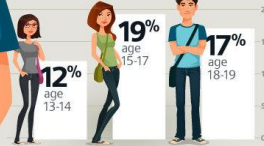


use noisy powered toys

Many teens show signs of hearing loss



Percentage of teens with at least one symptom, often or all the time (ringing, roaring, buzzing or pain)



Hearing aid features teens say they would look for

67% durability for sports

75% wirelessly connecting electronic gadgets

63% control device using smart phone

56% cool looking device

65% rechargeable

What Teens Can Do



Turn down the volume.

Hear ringing, roaring or buzzing after wearing headphones or earbuds? You could be damaging your ears



Concerts & Clubs

Sit in the middle of the room and wear earplugs, musicians are wearing them too



Headphones over earbuds

The chance of over-exposure to loud sound can be reduced



Wear ear protection

The effects of loud noise exposure is cumulative and can damage your ears over time



Custom ear protection

Musicians and high-decibel hunter's ear plugs



HELP a friend

If you can hear their music sitting next to them, ask them to TURN IT DOWN

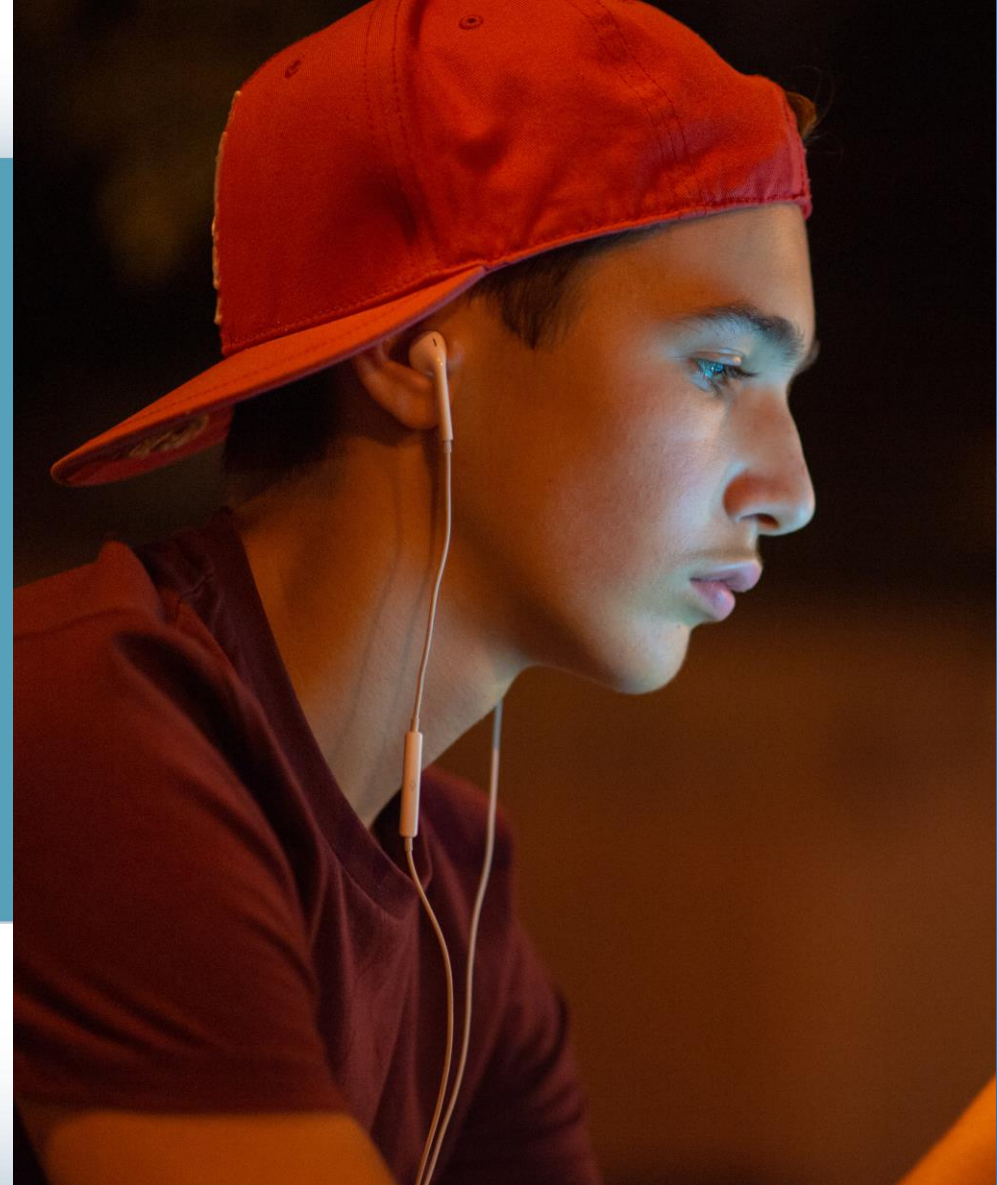


Get a baseline

Visit a hearing care professional to get a hearing health evaluation

SOURCE: Siemens Hearing Instruments, Inc.

SIEMENS



The Procedure

Children 11 Years & Above

Audiometer Set at 50dB & 1000 Hz Steps

Step A:

- Introduce the Beep



Step B:

- Demonstrate and explain the procedure

Audiometer Set at 50dB & 1000 Hz Steps *(cont.)*

Step C:

- Turn down the audiometer to 50 dB and the intensity at 1000 Hz
- Put the Earphones on*
- Ask the youth to respond
- If the youth responds continue screening the Right Ear



QUICK TIP: Which ear is red? The red is the right ear.
Which ear is blue? The left ear.

Right Ear

- Turn down the intensity to 20/25 dB
- Frequency is still at 1000 Hz
- If the youth responds, continue screening the Right Ear at Frequencies: 2000, 3000, 4000, 6000 and 8000



Left Ear

- Switch ear selector to **Left Ear**
- Begin where you left off at **a frequency of 8000 Hz**
- **If the youth responds, continue screening the Left Ear for Frequencies = 6000, 4000, 3000, 2000 and 1000 Hz**

Documentation

Documentation

Document screening results on the:

- Response/no response audiogram
- Child's medical record
- Care coordination form (Failed screening & referral)



Important Next Steps:

cencalhealth.org/providers/care-guidelines/medi-cal-for-kids-teens-services/pediatric-oral-health/

1. Please take a moment to work with your Clinical Trainer and walk through a Audiometric Screening practice session.
2. Once complete, please submit the CenCal Health Training Acknowledgement Form to receive your Audiometric Screening Training Certificate of Completion for your records.



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