

# Hearing Screening Program

HEARING SCREENING MANUAL – STUDENT



**TEXAS**  
Health and Human  
Services

Texas Department of State  
Health Services



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## INTRODUCTION

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As a professional working with children, you already know the profound effect that impaired hearing can have on their development. Although the incidence of permanent hearing loss is low, an estimated three million children in the United States have some degree of hearing loss. If undetected for many years, hearing loss can have lifelong implications. This is why the Department of State Health Services (DSHS) asks that you learn to identify children in schools as well as those in child care and medical settings who have hearing loss as early as possible in their development.

Hearing loss often cannot be detected by simple observation. Many times children with undetected hearing loss fail to respond as expected. Teachers, parents, and peers grow impatient with their undiagnosed impaired hearing, sometimes labeling them as slow to learn, inattentive, or vague. Such “problem children” may appear over-aggressive or uninterested in school.

By initiating appropriate screening programs to identify those children with hearing loss, your school or medical office can connect them to the programs and services they will need to succeed.

DSHS screening procedures will not detect all medical problems or identify all children with hearing difficulties, especially those with marginal losses. Hearing screening is a simple, nondiagnostic procedure that tells only whether a child may have a hearing problem. Screening by a properly trained individual should reveal which children need to be referred to their primary physician for further examination, evaluation, and treatment. Other vital components of a hearing screening program include follow-up and documentation of referrals.

This manual covers the following topics:

- A brief introduction to the essentials of **audiometric screening**, the first step in the identification of hearing loss in children.
- Types of hearing loss.
- Audiometry and audiometer terminology.
- Specific procedures for accomplishing hearing screening.
- Recording and referral procedures.
- Online reporting procedure.

### DEFINITION:

**Audiometric screening:** hearing testing procedures directed toward identifying individuals in need of further evaluation.

**NOTE:** This manual serves solely as an introduction to screening audiometry. For more information about the complexities of hearing measurement, please refer to texts on basic hearing science and clinical audiometry.

## HEARING SCREENING







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## SCREENING SCHEDULE AND REQUIREMENTS

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### SCREENING SCHEDULE

The requirements for vision and hearing screening apply each year to children enrolled in any licensed child care center, child care home, or school program at the ages or grades listed below.

WHO MUST BE SCREENED	WHEN SCREENING MUST BE DONE
<ul style="list-style-type: none"><li>Children 4 years old or older, enrolled in any facility for the first time.*</li></ul>	Screen within 120 calendar days of enrollment.**
<ul style="list-style-type: none"><li>Children enrolled in pre-kindergarten and kindergarten.</li></ul>	Screen each year within 120 days of enrollment.**
<ul style="list-style-type: none"><li>Children enrolled in 1st, 3rd, 5th, and 7th grades.</li></ul>	Screen each of those grade years any time during each of those years (preferably within 120 days of admission).*

\* Children who turn 4 years old after September 1 of that year are exempt from screening until the following September.

\*\* If the child is enrolled within 60 days of the date the facility is to close for the summer, the screening may be conducted within 120 days of the beginning of the following school year.

Facilities are encouraged to screen all children younger than 4 years of age who can reliably respond to the screening tests outlined in the DSHS vision and hearing screening protocols.

#### DEFINITION:

**Facility:** a private or public school or pre-school, licensed child care center, or child care home.

*DSHS recommends completing all screening by April so that follow-up on referrals can be collected for the annual report.*

A child may be exempt from screening if the child’s parent or legal guardian does the following:

- Submits a record to the facility showing that the child’s vision and/or hearing has been screened during the grade year in question or during the previous year.
- Submits documentation stating that a person other than the screener used by the facility shall conduct the screening as soon as is feasible. The child may be admitted into the facility on a provisional basis for up to 60 days, or the child may be denied admission, until the screening results are provided to the facility.
- Submits a notarized affidavit stating that the screening conflicts with their religious beliefs or practices.

DSHS also **recommends** hearing screenings for:

1. Students returning from an absence resulting from a communicable disease.
2. Students referred by teachers, parents, or others.
3. Children who repeat a grade and who have not been screened within the last year.

### SCREENING REQUIREMENTS

A pure-tone audiometric sweep-check screen must be conducted:

- For **each** ear.
- **At less than or equal to 25 decibels (dB).**
- For **each** of these frequencies: **1000, 2000, and 4000 Hertz (Hz).**

Schools may write DSHS to request permission to perform screening in alternating years after first grade.

### RECORDING REQUIREMENTS

To collect screening information for each child, a facility may use its own screening form or duplicate ones provided by DSHS (see the Appendix for the M-40 and M-20 form). These forms are for internal recording purposes only. To report results, facilities should use the online form available at <http://chrstx.dshs.texas.gov>.

In either case, there must be a screening record—or a comprehensive health record with space provided for the screening results—on file for each child enrolled. The following data must be recorded legibly:

- Child’s full name.
- Birth date or age of child.
- Type of screening.
- Date of the screen.
- Name of the screener (printed and signed).
- Screening results.
- Any signs or symptoms of a hearing problem.

Facilities must submit an annual aggregate report to DSHS. This is covered on page 36 of this manual. Submit annual hearing screening reports to DSHS online at <http://chrstx.dshs.texas.gov> between January 15 and June 30 of each year. **If your facility has no children for whom you need to report vision and hearing screening results, please click “Edit Vision/Hearing Screening Information” (Step 1), leave zeroes in all the result fields, and click “Submit Final Vision/Hearing Screening Information.” For more about reporting procedure see page 36 of this manual.**

**NOTE:** The rules for DSHS's Vision and Hearing Screening program are included in the Appendix of this manual and are available online at <http://dshs.texas.gov/vhs/rules>.

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## ESTABLISHING A SCREENING PROGRAM

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*Children should have their hearing screened at a young age, since early special education of hearing-impaired children is vital.*

### WHAT IS HEARING SCREENING?

Hearing screening is a brief test designed to determine whether a person's hearing falls within the normal range. **Screening answers only one question: does the person show possible problems that indicate the need for further assessment?**

Hearing screening is a quick and cost-effective way to determine who among a group of people may have hearing loss and need a more detailed hearing evaluation by a primary care provider or a qualified **licensed professional**. (For more information visit the American Speech-Language-Hearing Association website at <http://www.asha.org/public/hearing/Hearing-Testing/>.)

#### DEFINITION:

**Licensed Professional:** an individual whose legally defined scope of practice includes the area for which the screening is conducted, and who uses department-approved techniques or professional practice standards for the screening.

If a hearing problem is detected in a child, early intervention is critical. The mission of the Texas Vision and Hearing Screening program is to ensure that preschoolers and school children with hearing and vision problems are identified early and linked to appropriate remedial services.

When establishing a screening program, it is important to remember that ideal screening procedures are simple, fast, and inexpensive. Screening programs should strive to provide reliable results to avoid a significant number of over-referrals or under-referrals.

#### Hearing Screening Program Objectives:

1. **Identify** children who may have a hearing loss.
2. **Refer** these children for professional examination and needed health services.
3. **Follow up** on referrals in order to support any recommendations.
4. **Inform teachers** about any confirmed hearing difficulty.

### High Quality Screening Programs:

1. Provide a **quiet place** for screening.
2. Maintain proper **calibration** of the audiometer.
3. Use **trained screeners** and **accepted techniques**.
4. Provide **referral** and **follow-up** for children who fail their hearing screen.

This manual will help you establish a screening program that meets all of the aforementioned objectives and goals. The first step for conducting a successful hearing screening is to understand how sound is measured and how the ear detects sound.

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## MEASUREMENT OF SOUND

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*Frequency and intensity are physical characteristics of sound. The ear perceives frequency and intensity as pitch and loudness.*

To measure hearing ability, screeners use a type of sound called “**pure tone**.” Pure tone comes from the simple harmonic motion of vibration.

Just as the human body has measurable physical characteristics such as weight and height, a pure tone has two measurable attributes: **frequency** and **intensity**.

**Frequency** = Pitch = Hertz

**Intensity** = Loudness/Softness of sound = Decibels

### FREQUENCY

The frequency of a pure tone refers to the number of times a vibration occurs in one second, which the ear perceives as the pitch of a sound. The pitch tells us how high or low the pure tone sounds.

Frequency is measured in units called Hertz (Hz). The lower the frequency, the lower the Hertz and the pitch of the pure tone. Higher Hertz indicates higher frequency and a higher pitch. Although normal human hearing can range from 20 Hz to 20,000 Hz, most human speech contains sounds ranging from only 125 Hz to 8000 Hz. Since basic hearing screening seeks to detect those who may have problems hearing sound in the important speech range, screeners check hearing frequencies of 1000, 2000, and 4000 Hz.

#### DEFINITIONS:

**Pure Tone:** a tone of a single frequency produced by simple harmonic motion and characterized by its singleness of pitch.

**Frequency:** one of the physical characteristics of sound; the number of cycles per second, measured in Hertz (Hz); pitch.

**Hertz (Hz):** a unit of frequency equal to one cycle per second.

### INTENSITY

The **intensity** of a pure tone refers to the loudness or softness of sound. **Audiologists** measure intensity in units called **decibels (dB)**.

Audible intensity in normal listeners ranges from 0 dB HL to 120 dB HL, though a

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120 dB HL sound causes discomfort except for brief periods of time. Figure 1 on the following page represents the decibel levels of some everyday sounds as well as the minimum number of hours one can safely be exposed to those sounds.

Normal conversational speech usually ranges from 40 to 65 dB HL. Thus, someone with a common 40-50 dB HL hearing loss will hear a normal conversation very faintly and at an actual sensation level (SL) of about 10-20 dB. At distances of more than five or six feet, the sound may fade away completely.

In a hearing screening, remember that frequency refers to the pitch, and intensity refers to the degree of loudness.

#### **DEFINITIONS:**

**Intensity:** one of the physical characteristics of sound, measured in decibels (dB): loudness or softness of a sound.

**Audiologist:** a person who specializes in the field of hearing and particularly in hearing impairments.

**Decibels (dB):** a unit for expressing the relative intensity of sounds on a scale from zero (for the average least-perceptible sound) to about 130 (for the average pain level); the abbreviation “dB” is both singular and plural.

Some people can have permanent hearing loss after a single incident of extremely loud noise levels. Others may have to experience repeated exposure to extremely loud noise before sustaining damage. When a person is exposed to harmful noise longer than the Occupational Safety & Health Administration (OSHA) safety limits chart indicates (Figure 1), it is best for him or her to wear ear protection. Standard, properly fitted noise-reducing earplugs and earmuffs, or custom-made devices, will decrease the noise dB level enough to protect hearing. An audiologist can check the effectiveness of protection devices.

#### **DEFINITION:**

**Noise:** any sound that is unwanted, undesired, or that interferes with a person’s hearing.

Figure 1: Permissible Noise Exposure

Duration per day, in hours	Sound level in dB*
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

\*When measured on the A scale of a standard sound level meter at slow response.

Source: 29 CFR 1910.95, Table G-16. (from <http://www.osha.gov/Publications/osha3151.html>)

Figure 2: Hearing Fact Sheet

Sound Levels of Common Noises	
Decibels	Noise Source
<b>Safe Range</b>	
30	Whisper
60	Normal conversation
70	Washing machine
<b>Risk Range</b>	
85 to 90	Heavy city traffic, power lawn mower, hair dryer
95	Motorcycle
100	Snowmobile, hand drill
110	Chain saw, rock concert
<b>Injury Range</b>	
120	Ambulance siren
140 (pain threshold)	Jet engine at takeoff
165	12-gauge shotgun blast
180	Rocket launch

Adapted from National Institute on Deafness and Other Communication Disorders, 2008; the National Institute for Occupational Safety and Health, 2009; and American Tinnitus Association, 2009.



## HEARING LOSS PREVENTION

Hearing loss can be caused by a one-time exposure to an intense sound, such as an explosion, or by repeated exposure to a loud noise over an extended period of time. Because it develops gradually and without pain or symptoms, you may not notice that you have hearing loss until it is severe.

Along with having regular hearing exams, the following efforts can help prevent hearing loss.

- Use hearing protectors. Wear earplugs or earmuffs when in situations where loud noise is unavoidable, such as a concert or fireworks display.
- Control the volume when you can. Turn down the volume on the stereo, TV, or car radio, and especially on personal listening devices with earphones or ear buds.
- Never put an object (such as a cotton swab or hairpin) into your ear to try to remove earwax.

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## THE EAR AND THE HEARING PROCESS

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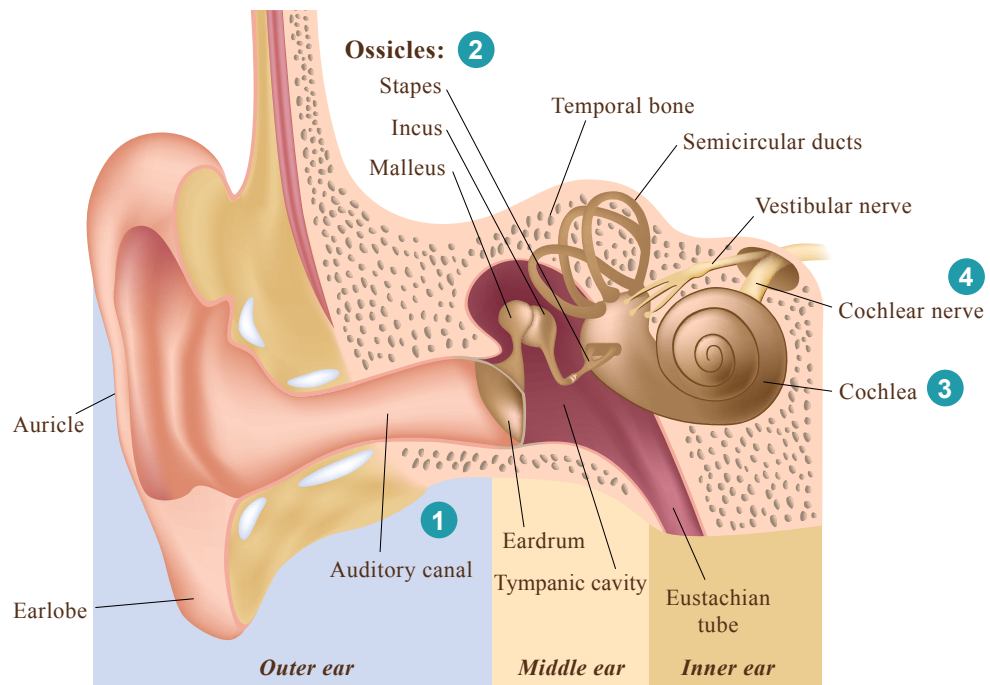


*The Eustachian tube serves as a means of equalizing air pressure and ventilating the middle ear cavity.*

### HOW THE EAR WORKS

As a hearing screener, you will benefit from knowing a little more about the inner workings of the human ear. Sound waves, traveling out and away from their source much like ripples in a pool when a pebble is thrown into it, are received by the ear and transmitted as a message to the brain. Every day our computer-like brain receives hundreds or thousands of signals known as sounds. To get to the brain, the message must pass through three well-defined sections of the ear: the outer ear, the middle ear, and the inner ear.

FIGURE 3: Cross section of the ear



**1.** Sound waves enter your outer ear and travel through the ear canal to your eardrum.

**2.** Your eardrum vibrates with the incoming sound and sends the vibrations to three tiny bones in your middle ear.

**3.** The bones in your middle ear amplify the sound vibrations and send them to your inner ear, or cochlea. The sound vibrations activate tiny hair cells in the inner ear, which in turn release neurochemical messengers.

**4.** Your cochlear nerve carries this electrical signal to the brain, which translates it into a sound you can understand.

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## TYPES OF HEARING LOSS

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Different types of hearing losses can be associated with the outer, middle, or inner ear. The three types of hearing loss—conductive, sensorineural, and mixed—are described below.

### CONDUCTIVE HEARING LOSS

Conductive hearing loss occurs when a problem in the external or middle ear prevents sound from being conducted properly to the inner ear. Conductive hearing loss is commonly caused by wax in the external ear, otitis media (infection of the middle ear), or a ruptured eardrum.

### SENSORINEURAL HEARING LOSS

Sensorineural hearing loss results from impaired function of the inner ear and/or neural (nerve) pathways of the auditory system. Typically, sensorineural hearing loss in young children is caused by congenital factors (ones present at birth), severe viral infections, or acoustic trauma (damage to the cochlea by sudden exposure to extremely loud sound).

Characteristically, sensorineural hearing loss results in greater loss at the higher frequencies (2000 Hz and above) than at lower frequencies. This affects a person's perception of a number of sounds and word endings (for example, the sounds s, z, and sh and words ending in ed). Speech perception is usually worse for people with this type of hearing loss than those with conductive hearing loss. Even if the person wears an appropriately fitted hearing aid, hearing never returns to normal. A hearing aid amplifies sound (makes it louder); it may or may not improve a person's ability to discriminate the various sounds required for clear understanding of speech. For this reason, teachers and parents of a child with sensorineural hearing loss need to understand the implications of this type of loss for language development and routine communication.

### MIXED HEARING LOSS

Mixed hearing loss can result from any combination of the conductive and sensorineural causes described previously. Therefore, a mixed hearing loss results from impaired functioning of both the outer/middle ear and the inner ear.



*Ruptured eardrum, severe external otitis (swimmer's ear), and otitis media (ear infection) are examples of the various causes of a conductive type of hearing loss.*

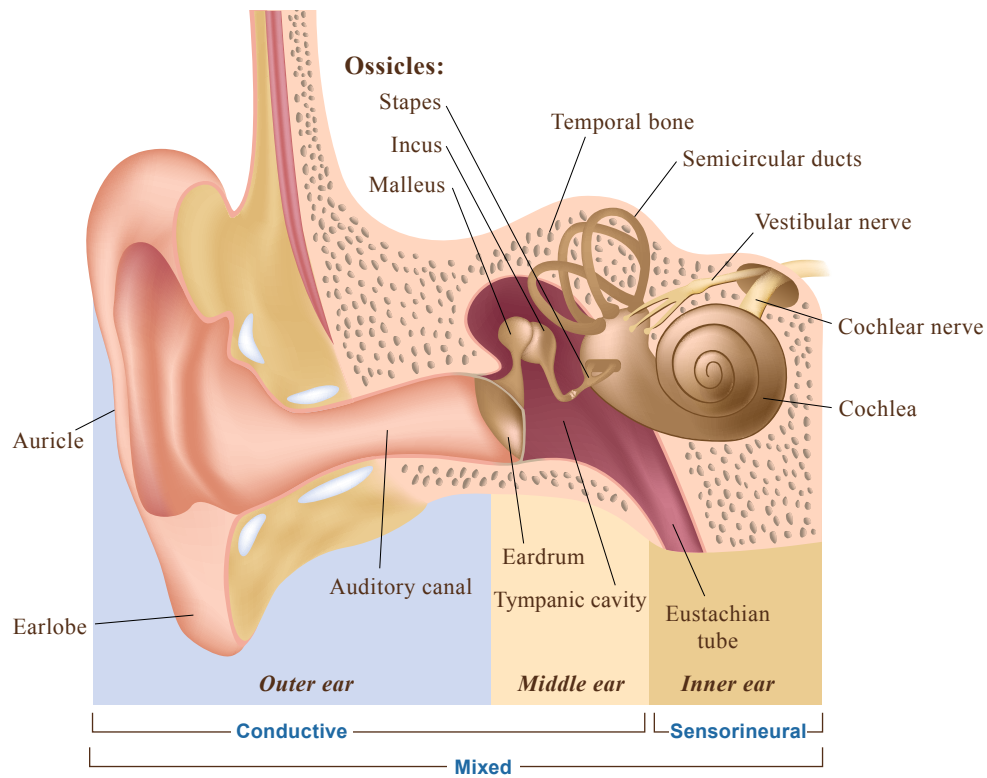


Figure 4: A cross section of the ear showing types of hearing loss

## CAUSES OF HEARING LOSS

Hearing loss may result from significant events in the child’s prenatal and medical history. Hearing loss can be congenital or acquired.

### DEFINITIONS:

**Congenital Hearing Loss:** hearing loss present or existing at birth.

**Acquired Hearing Loss:** hearing loss developed during a person’s lifetime.

### Causes of Congenital Hearing Loss:

- Viral, bacterial, or parasitic infections in pregnancy or at birth (for example, rubella or herpes).
- Lack of oxygen before or at birth.
- Rh factor incompatibility with mother.
- Prematurity and/or low birth weight problems.
- Inherited hearing problems.

### Causes of Acquired Hearing Loss:

- Frequent ear infections, such as otitis media.
- Viral or bacterial infections, such as meningitis.
- Excessive exposure to loud noise.
- Head injury.
- Ototoxic drugs (medications prescribed for life-threatening illnesses, such as cancer or kidney disease, that can damage the structures in the cochlea and cause permanent hearing loss).

#### **DEFINITION:**

**Otitis Media:** inflammation or infection of the middle ear.

**NOTE:** If a child has a history of any of the above problems, he or she should be considered at risk for hearing loss.

## SYMPTOMS OF HEARING LOSS



*Otitis media (infection of the middle ear) is the single most frequent cause of hearing loss in school children.*

Becoming familiar with signs and symptoms of hearing loss in children may help you identify them earlier and help avoid delays in speech/language development, poor pronunciation, or more complicated communication difficulties that can affect behavior, relationships, and learning. By understanding the stages—or milestones—of child development, you can expand your ability to detect a possible hearing loss beyond physical signs and symptoms.

### HEARING DEVELOPMENT

The first five years of life are formative years in all areas of development. In the key area of communication, children begin by listening to and understanding messages and progress to learning how to talk. Children must have normal hearing in order to develop strong speech and language skills.

Figure 5 describes language and developmental milestones. If the child cannot perform any one task at the appropriate age level, a licensed professional should examine him or her.

Figure 5: Developmental milestones

#### A Guideline for Normal Language Development

**Receptive Language:** the ability to understand the ideas expressed by others.

**Expressive Language:** the ability to relate ideas to another person, usually with words and gestures.

#### Developmental Milestones

Receptive Language	Child's Age	Expressive Language
<ul style="list-style-type: none"> <li>• Responds to sound</li> <li>• Smiles at mother's voice</li> </ul>	<p><b>Birth to 1 mo.</b></p>	<ul style="list-style-type: none"> <li>• Makes eye contact with mother or caregiver</li> </ul>
<ul style="list-style-type: none"> <li>• Pays attention to speech sounds</li> <li>• Smiles when talked to</li> <li>• Responds to noise and voices</li> </ul>	<p><b>2 mos. to 6 mos.</b></p>	<ul style="list-style-type: none"> <li>• Makes different kinds of sounds for different reasons to communicate</li> </ul>

Guideline for Normal Language Development cont'd

Receptive Language	Child's Age	Expressive Language
<ul style="list-style-type: none"> <li>• Pays attention to “no” and name</li> </ul>	<b>6 to 8 mos.</b>	<ul style="list-style-type: none"> <li>• Takes turns in familiar games</li> <li>• Plays with sounds and imitates</li> </ul>
<ul style="list-style-type: none"> <li>• Turns head to find where a sound is</li> <li>• Gives toys or objects if you ask</li> </ul>	<b>8 to 10 mos.</b>	<ul style="list-style-type: none"> <li>• Starts making strings of sounds (“ba, ba, ba”)</li> <li>• Uses sound to get your attention (“uh uh”)</li> </ul>
<ul style="list-style-type: none"> <li>• Begins to follow simple directions (“Put that down.”)</li> <li>• Recognizes names of many objects/actions/ characteristics in environment</li> </ul>	<b>10 to 18 mos.</b>	<ul style="list-style-type: none"> <li>• Begins to use consistent words for things (“doggie”), actions (“play”), characteristics (“big”)</li> <li>• May put two or more words together (“More milk.”)</li> </ul>
<ul style="list-style-type: none"> <li>• Gets objects that are in another room after only verbal command</li> </ul>	<b>18 to 24 mos.</b>	<ul style="list-style-type: none"> <li>• May ask one- to two-word questions (“Where kitty?”)</li> <li>• Uses voice to communicate rather than gestures</li> </ul>
<ul style="list-style-type: none"> <li>• Understands most kinds of simple sentences adults say</li> <li>• Answers “where” and “what” questions</li> </ul>	<b>2 to 3 yrs.</b>	<ul style="list-style-type: none"> <li>• Begins to listen and talk in turns with another person</li> <li>• Speech is understandable 60-70 percent of the time (“wabbit,” “wittle,” “fum” not yet mastered)</li> </ul>
<ul style="list-style-type: none"> <li>• Understands place words (on, under, behind)</li> <li>• Talks about people and events not actually present (school events, grandmother)</li> </ul>	<b>3 to 4 yrs.</b>	<ul style="list-style-type: none"> <li>• Asks “why,” “who,” “what” questions</li> <li>• Can have long conversations with another person</li> </ul>
<ul style="list-style-type: none"> <li>• Understands ideas about time (before, yesterday)</li> <li>• Follows three-step directions</li> </ul>	<b>4 to 5 yrs.</b>	<ul style="list-style-type: none"> <li>• Can add information if listener doesn’t understand (the big <i>red</i> truck)</li> <li>• Forms sentences about five words in length</li> </ul>
<ul style="list-style-type: none"> <li>• May begin to develop reading skills</li> <li>• Can answer questions about material just heard (story questions, verbal directions)</li> </ul>	<b>5 to 6 yrs.</b>	<ul style="list-style-type: none"> <li>• Speech contains very few sound errors</li> <li>• Can tell familiar story well</li> <li>• Knows personal information if asked (name, address, age)</li> </ul>

## MEDICAL/PHYSICAL SYMPTOMS

Hearing loss can affect one or both ears. The degree of hearing loss is measured in units of sound called decibels (dB). You will remember from the Measurement of Sound section of this manual that this measurement denotes the loudness level at which an individual can detect a pure tone.

Watch for these obvious and not-so-obvious medical complaints and signs:

- Pain in the ear(s).
- Discharge from the ear(s).
- Ringing or buzzing in the ear(s).
- Inability to hear certain tones.
- Straining to hear conversation.
- Dizziness with no apparent cause.
- The favoring of one ear.
- Lack of response to nearby sounds.
- Need for loud volume on TV or radio.
- Problems understanding speech when background noise is present.

Please see the Appendix of this manual for the Hearing Loss Symptoms Checklist to be completed by the child's parent, guardian, classroom teacher, or hearing screener who may notice a student is exhibiting signs or symptoms of hearing difficulties.



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## AUDIOMETERS

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### PURE-TONE SCREENING AUDIOMETERS

An audiometer tests hearing sensitivity. A pure-tone audiometer electronically generates pure tones as signals to test hearing. Use an audiometer with the required frequencies and a method for precisely controlling the intensity of the tones.

Basic accessories include earphones and earphone cords attached to the unit. Some audiometers have specialized accessories that are not necessary for screening.



*Photo used with permission from  
Angelus Medical & Optical Co. Inc.*

### SWITCHES AND CONTROLS OF AN AUDIOMETER

All pure-tone audiometers have certain basic controls and switches in common:

1. **Power Switch** turns the instrument on and off.
2. **Frequency Selector** changes the frequency of the test tone. Frequency ranges must be from 250 Hz to 6000 Hz. Frequency selector dials may also show, with a smaller numeral, the maximum intensity output in dB that the audiometer can produce for that particular frequency.
3. **Hearing Level Dial (or Attenuator)** controls the intensity of the test tone. Hearing threshold level readings on this dial usually begin at 0 dB and are calibrated in 5 dB steps, or smaller.
4. **Output Selector Switch** determines which earphone will transmit the output signal (tone). Some audiometers may also have a “Group” or “Bone Conduction” position on this switch.
5. **Tone Interrupter or Tone Presentation Switch** is a button, bar, or lever used to present or interrupt the test tone, depending upon the position of the Tone Reverse switch.
6. **Tone Reverse Switch** provides a choice for the tone to normally be ON or OFF. Some audiometers have a two-position Tone Reverse switch.
7. **Type of Tone Switch** provides a choice for the type of tone: pulse, warble, or constant.



*Earphones are the most delicate part of the audiometer and are most likely to get out of calibration by being dropped or from other misuse.*

#### DEFINITIONS:

**Hearing Level (HL) for Pure Tone:** the minimum hearing level at which an individual is able to respond 100 percent of the time to a series of tone presentations.

**Attenuator:** a control capable of decreasing the amplitude of an audiometer's output signal without distorting its frequency.

## AUDIOMETER CARE AND MAINTENANCE

Because of their expense, and to maintain reliability of test results, it is imperative that screeners handle audiometers and earphones with care.

### Audiometer Dos and Don'ts:

- Do handle the earphones carefully.
- Do protect the audiometer from extremes in temperature and humidity.
- Do keep it clean—dust and industrial air pollutants may rapidly affect the calibration and operation of the equipment.
- Do store it with a protective cover, off the floor.
- Do keep earphones and cord(s) in their storage compartments.
- Do allow at least one additional hour of warm-up time prior to screening—for stabilization of all internal audiometer components—if transported or stored at temperatures below 40 °F for more than four hours.
- Do not turn the audiometer off after each screen. To prolong its life, allow to remain on until completion of the final screen of the day.

## EARPHONES

As the most delicate part of the audiometer, earphones may lose proper calibration if mishandled or misused.

Earphones transmit test tones to each ear individually according to the standardized color codes: **red** for the **right** ear and **blue** for the **left** ear. An easy way to remember the color codes is by using the mnemonic device “red is always right.”

#### IMPORTANT:

Earphones must be calibrated to one specific audiometer and should always be considered an integral part of that particular instrument. If for any reason earphones are damaged, do not interchange them with earphones from another audiometer. Interchanging them will affect the screening accuracy.

## Earphone Dos and Don'ts:

- Do not separate the earphones from the audiometer. As they are calibrated to one specific audiometer, they should be considered an integral part of that particular instrument. Changes in calibration will affect the accuracy of the screening.
- Do use binaural earphones (earphones that transmit sound through both the right and left earphones) for screening children.
- Do not use noise-suppressing earphones (circumaural) for screening children because they are not appropriately sized for them.
- Do protect the center portion, or diaphragm, through which sound transmits.
- Do carefully examine the earphone cushions for separation between the two glued surfaces before each use.
- Do check to ensure the headband has sufficient tension in order to hold the earphones snugly to the head and to maintain the height adjustment of the sliding rods.
- Do pack earphone cords loosely in the storage compartment. Use a separating pad if earphones must be packed cushion-to-cushion.
- Do periodically disconnect plugs from earphone jacks and reconnect several times to break corrosion-type film.

## CALIBRATION

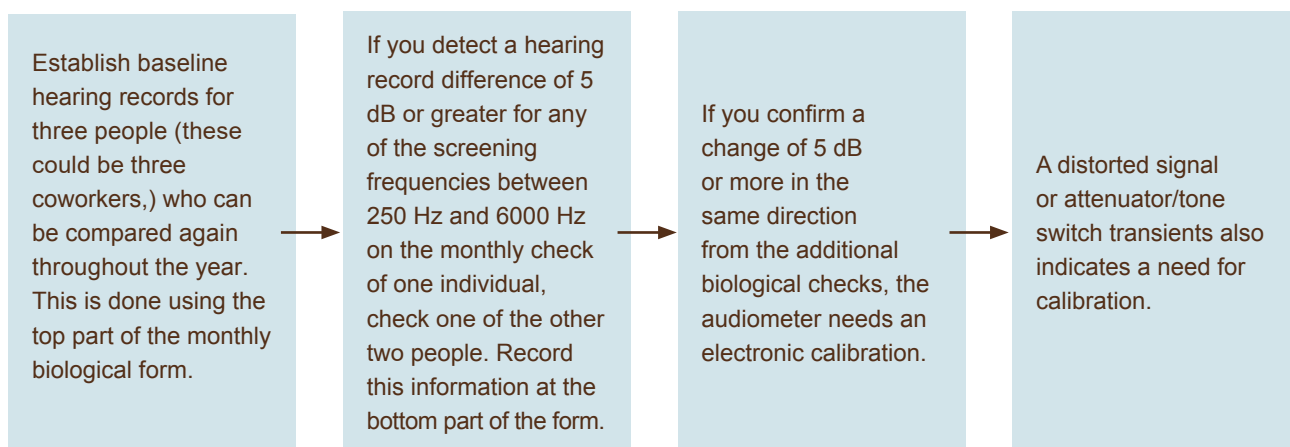
As an electronic instrument, an audiometer requires calibration—or maintenance and periodic adjustment—to ensure accuracy of frequency emission and loudness.

To ensure proper function, Texas regulations require two types of calibration checks on every audiometer used for screening.

## MONTHLY BIOLOGICAL CALIBRATION

Each month the audiometer is in use, the State requires a monthly biological calibration check. Record these results on a form that you keep with the audiometer. (See Audiometer Monthly Biological Calibration Check form in the Appendix.)

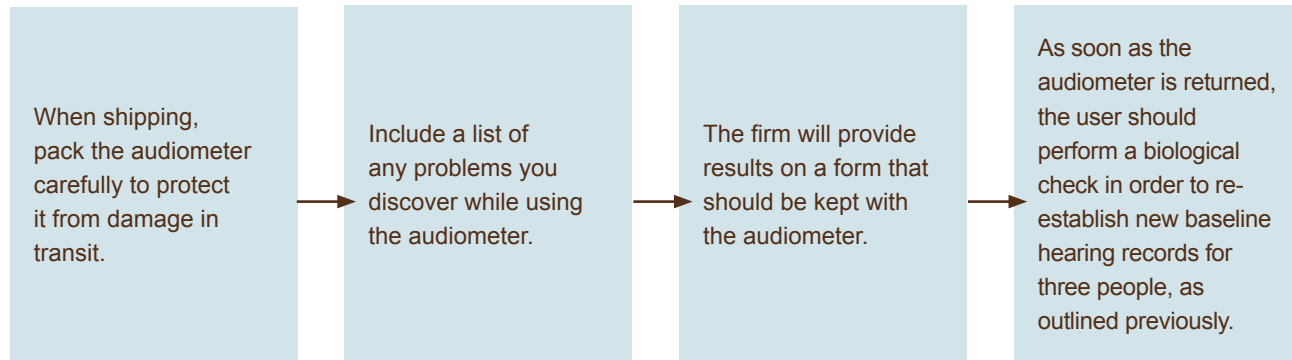
### Process for performing a monthly biological calibration:



## ANNUAL ELECTRONIC CALIBRATION

Every audiometer must be electronically calibrated to ANSI standards at least once a year by an independent firm that has special equipment and trained staff. A list of firms registered to calibrate audiometers for use in Texas is available upon request from DSHS.

### Process for performing an annual electronic calibration:



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## CONDUCTING A SCREENING

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### SCREENING ENVIRONMENT

An important first step to ensuring a successful screening is to secure a quiet screening environment. Referring a child who fails because of poor screening conditions can cost a family time and money. Over-referrals can also damage the integrity of your screening program.

#### Top Priorities in Choosing a Screening Environment:

- Choose a quiet room (ideally, an acoustically treated and/or carpeted room, such as a music practice room, library, or large closet).
- Avoid visual distractions in the room.
- Ensure the room has accessibility for persons with disabilities.

#### IMPORTANT:

If the ambient noise level is too loud, the screening should be discontinued. Do not increase the intensity of the test tones above the allowable limit of 25 dB HL.

#### DEFINITION:

**Ambient Noise:** extraneous sounds in the surrounding area, particularly those in a specified hearing screening area.

### PURE-TONE SCREENING PROCEDURES

DSHS has based the following recommendations on more than 60 years of program experience and has found these practices to provide the greatest return for the time spent.

#### PRE-SCREEN OPERATIONAL CHECK

##### Audiometer

Use these procedures to check for proper functioning of cords and connections:

1. **Power Cord**—Look for wear or damage.
2. **Earphone Cords**—Set audiometer to 60 dB HL, 250 Hz. Flex each cord at both ends and listen to be sure there is no crackling, static, or popping



*Prior to each screening session, check for proper operation of all controls, switches, dials, lights, etc. that are necessary for conducting the screenings.*

sounds in the earphones. Be sure no audible airborne sounds (clicks) occur that could provide a clue to the person being screened.

3. **Frequency Switch**—With earphones on, present tones at each of the screening frequencies in each ear. Check the pitch of the tones as it rises in frequency (2000, 4000, 6000 Hz) and lowers (1000, 500, 250 Hz). While changing the frequency selector, listen for clicks or scratching sounds in the earphones. Check that the selector operates freely and that the correct tones sound at each setting.
4. **Intensity Dial**—Set frequency to 250 Hz. Turn the dial from 0 to 50 dB and listen with the earphones for scratching or crackling (static) and ensure there is a clear tone with no distortion or warbling. With the tone off, turn the dial to 60 dB and set the frequency to 4000 Hz. Verify that no tone or hum is present.

## Earphones

1. Listen to all frequencies with the tone off and the dial set to 25 dB. Check for tones, noise, or other unwanted sounds.
2. While wearing the earphones or holding them to an ear, set the audiometer's controls for a continuous tone of approximately 40 dB and check the loudness of each earphone's output for all frequencies by switching the right and left earphone positions.
3. If testing the earphones in the screening location, you can also estimate the level of ambient noise in the room by listening to all of the screening frequencies at 25 dB. Reliable screen results cannot be expected if a screener with normal hearing is unable to hear or has difficulty hearing these tones at the 25 dB level.

## PREPARING THE CHILD

The process of hearing screening may frighten some children under the age of 5. Many times, they will resist wearing earphones or refuse to follow the instructions to raise a hand when they hear a sound, even though they understand what you have asked. Taking time prior to screening to train young or special education children, using some basic conditioning techniques, can help.

## HOW TO PREPARE A GROUP OF CHILDREN FOR A SCREENING

In a school setting, consider instructing an entire class or group of children at the same time.

1. Set up an audiometer with the earphones on top of the unit and turned outward so that the sound is directed at the group.
2. With the children sitting fairly close to the audiometer (perhaps in a circle), demonstrate the variety of sounds that the audiometer can make. Set the decibels at a higher level (between 70 and 90 dB) with frequencies at 1000, 2000, and 4000 Hz. Be sure to turn the earphones outward so the sound can be heard by the children.
3. Teach them to raise their hands every time they hear a sound. Make it a game by telling the children, “Now, every time you hear a sound from this machine, I want each of you to raise your hand and keep it there. When the sound goes away, put your hand down.” Using the recommended higher-pitched frequencies, have them listen and raise their hands several times. Be sure to praise the group for doing such a good job of listening carefully and raising their hands.
4. When it appears that most of the children have caught on to the game, explain that each one of them will play this game alone with you in a quiet room. Explain that they will wear the earphones in order to hear the sounds. You may want to place the earphones on a few of the children or yourself to show the group that it is not uncomfortable to wear the earphones.

Training a teacher or an aide to play this listening game with the children can save the screening team some time.

### How to Prepare a Young Child for a Screening

With some 3- and 4-year olds or some children with special needs, you may have to make the screening more like a game. Some children cannot or will not raise their hands. However, they will respond to a game in which they put beads in a can or place rings on a stacking toy every time they hear a sound.

Teach each child individually in a manner similar to regular conditioning. Help the child to perform the task as needed. When the child responds appropriately every time, move on to introducing the earphones.

Some children in preschool and special education classes will not be screenable using the procedures outlined in this manual. Some very young children may cooperate with a rescreen in a couple of months after they have adjusted to the school setting. Other children, however, may not understand the instructions, or they simply will not be able to respond appropriately to the screening tones. Let reluctant children see others go through the hearing screening process first. However, do not force any child to participate. Mark them as “unscreenable”

and proceed to screen other children. Refer children who cannot be screened to their primary care provider for screening.

## PURE-TONE SWEEP-CHECK SCREENING

Sweep-check screening allows for the screening of many children in a relatively short period of time to identify those who may have a hearing problem and those who apparently do not. The first step in a sweep-check screening is to place the earphones on the child's head.

### IMPORTANT:

The importance of correct earphone placement cannot be overemphasized; improper placement may result in the child's failure of the sweep-check screen.

### How to Properly Place Earphones:

1. Remove all objects such as earrings, eyeglasses, headbands, combs, ribbons, or anything else that might prevent a good seal.
2. Discard any chewing gum.
3. Face the child while placing the earphones.
4. Brush hair back from the ears so the cushions will fit directly over the auricle and be flush with the side of the head.
5. Position the adjustable headband, with sliding rods fully extended, over the top of the child's head so that the grid covering the diaphragm of the red earphone is centered on the external auditory canal of the right ear and the blue earphone is centered on the left ear's canal. Centering the earphones over the external auditory canals ensures proper volume of the tone.
6. As the sliding rods are tightened (equally on each side), the headband stays squarely across the top of the head and the cushions fit snugly over the outer ear, blocking background noise that could interfere with reliable screen results. If the steel spring in the headband has been spread from use, increase the tension by bending the band so that the earphone cushions will fit more snugly.

### How to Remedy a Collapsing Ear Canal:

1. Pull back on the ear as you place the earphones on the child so that the ear canal remains open.
2. If the problem is a soft tragus, gently pull the facial area in front of the tragus forward as you place the earphone on the child. You may have to place the earphones on the head slightly in front of the ears, then move them one at a time over the ears.
3. For a very soft tragus you may have to use cloth tape. Pull and tape the area in front of the tragus to keep it open during the screening.



**IMPORTANT:**

Sweep-check screen at the 1000, 2000, and 4000 Hz frequencies. Screen at a 25 dB HL intensity. First screen the right ear, then the left ear.

**Before You Screen**

Prior to presenting the first tone, check that the dial has been lowered from the high settings (70 to 90 dB) used during conditioning to the appropriate level for screening. Make the child comfortable and, to prevent distractions, do not allow any other children in the room. Always take time before placing the earphones to instruct again how to respond to the tones. Tell the child to respond by raising his or her hand for each screen tone given by saying something such as, “You will hear beeps through these earphones. Some of the beeps will sound lower and some will sound higher. Every time you hear the beep, raise your hand. When the beep goes away, lower your hand.” When you are sure the child understands the instructions, place the earphones securely on his or her head.

Sit so that you can see the child’s face out of your peripheral vision to ensure that his or her attention does not wander. Be prepared to casually watch for facial expressions or the tentative raising of a hand to determine whether instructions should be repeated. It is important to sit in such a way that you can observe the child’s face without him or her being able to see you operating the controls. Remove the headphones and recondition the child if you suspect from facial expressions that he or she is hearing and not responding. Practice will help you develop proper screening techniques.

**Screening Procedures**

1. Position the earphones correctly on the child’s head.
2. Set the output selector switch to the right ear.
3. Keep the decibel level on 25 and leave it there for the entire sweep-check screening.

**IMPORTANT:**

In sweep-check screening, the dial always remains on the 25 dB setting. If the noise level in the screening room does not permit the screening at a 25 dB, then discontinue the screening or relocate.

4. Set the frequency selector on 1000 Hz.

5. Present the tone for two to three seconds.

**NOTE:** The sequence of tone presentation is important because lower-frequency tones can be inaudible if there is ambient noise in the screening environment. Since the human ear is more sensitive to the frequencies in the range from 1000 through 4000 Hz, the higher frequencies are perceived as having a greater sensation of loudness.

6. Record the child's response on the screening form—a plus mark (+) for each frequency heard and a minus (-) for any tone with no indicated response.
7. Present the 2000 Hz tone and then the 4000 Hz tone in the right ear.
8. Keep the decibel level at 25 and change the output selector switch to the left ear.
9. Repeat the screening procedure for the left ear using the same sequence of tone presentations: 1000, 2000, and 4000 Hz.
10. Record screening results using DSHS form M-40, found in the Appendix of this manual, or a form with the same data fields.
11. When using electronic records, be sure that the screening results are recorded accurately.

#### Things to Avoid While Screening:

- Letting the child watch you operate the audiometer's controls.
- Looking directly at the child when the tone is presented. **Use peripheral vision to observe the child.**
- Presenting the tone when there is a noise that you suspect would interfere with the child's hearing the tone.
- Giving any clues when the tone is presented; control your eyes, head, arms, or other body movements as well as reflections, shadows, and so forth.
- Establishing a rhythm in tone presentations; vary the time intervals between the tones.

**NOTE:** Since most children are aware of the purpose of a hearing screening, be sure that each child responds only to the tone being presented and not to cues the screener might inadvertently give.

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## RECORDING AND REFERRAL PROCEDURES

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### HOW TO RECORD RESULTS OF A SCREENING

Once you have conducted the screening, be sure that you have taken the time to record the results accurately. The M-40 and M-20 forms in the Appendix of this manual can be used to record information about a child's hearing screening. The M-40 is set up to record screening information about an individual child, while the M-20 can be used to record data about a group of children. Please note that while the M-20 is a good way to take down screening information during a screening, data from the M-20 should be transferred to a child's individual record and kept in his or her file. The M-40 and M-20 forms are optional and not submitted to DSHS. Facilities must include a statement in the child's official facility record confirming the child has undergone screening tests that meet the standards set by Texas Health and Safety Code, Chapter 36, and that these tests were administered by persons authorized to sign the required proof of screening. The statement shall include the child's sweep-check results and any other screening results.

While neither the M-40 nor the M-20 form is required as a means for keeping screening records, facilities may duplicate these forms and use them as part of their recordkeeping process.

#### **IMPORTANT:**

All children who have undergone a hearing screening must have a record of this screening in their school file. Facilities must keep a written record for every child screened. They may use either the M-40 form or their own form that includes the same information.

### HOW TO REFER A CHILD FOR ADDITIONAL EVALUATION

A child fails the sweep-check screen if he or she fails to respond to any of the three frequencies in either ear. If a child fails the initial screening, conduct another sweep-check screen within three to four weeks. On the second screen failure of one frequency in either ear requires a referral or an extended recheck (see Extended Recheck Procedure on page 35). Failure of one frequency during the extended recheck requires referral (referral may be made after the initial screen)



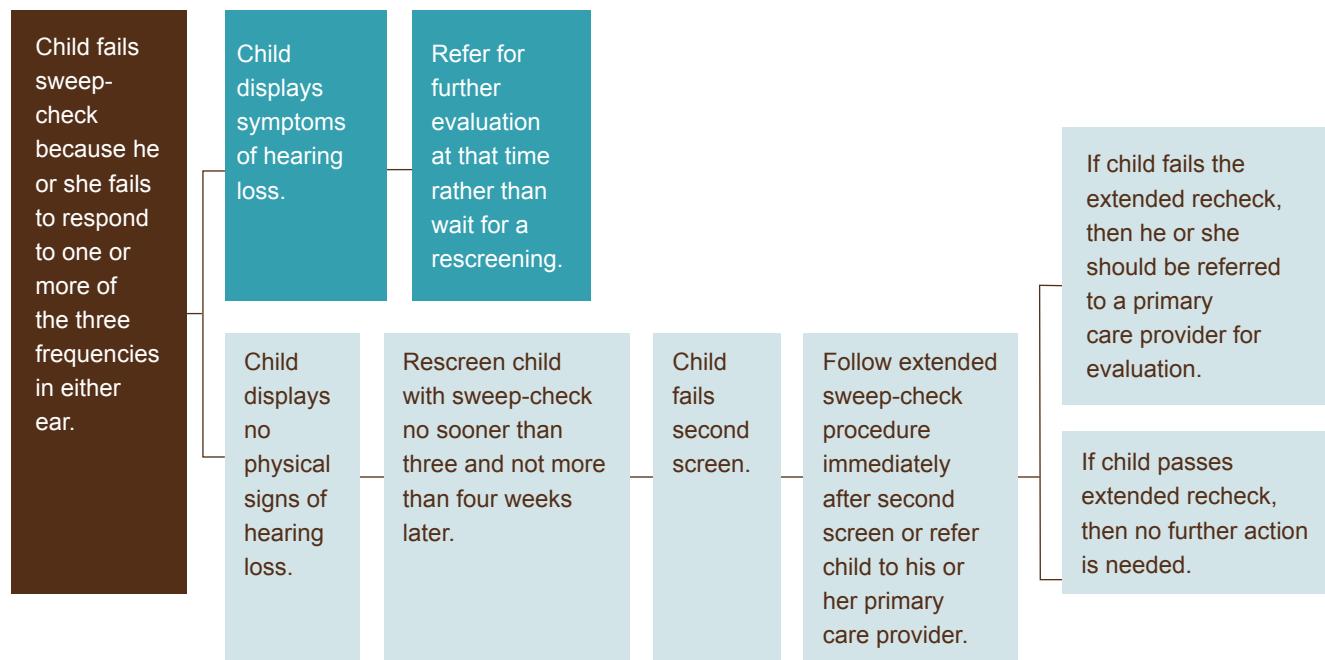
*Check with your local school or medical society for policies on referrals; they may supersede these minimum recommendations by DSHS.*

**IMPORTANT:**

Children referred for hearing screening on an individual basis because of signs or symptoms observed in the classroom (see Symptoms of Hearing Loss on page 22) should be referred for more thorough evaluations if they fail one frequency in either ear during the first sweep-check screen. **If the screener observes physical signs of hearing problems at the time a child fails the first sweep-check screen, refer for further evaluation at that time rather than wait for a rescreening. Do not delay evaluation of a possible hearing loss for children who give indication of problems.**

Refer all children who fail two sweep-check screens to their primary care provider.

**Referral Decision Tree**



**NOTE:** When developmental delay is identified or suspected in a child age 3 or younger, you or one of your colleagues may refer the child to the State’s Early Childhood Intervention program, or ECI. ECI is a statewide program for families with children birth to 3 years of age with disabilities and developmental delays. ECI supports families to help their children reach their potential through developmental services that are provided by a variety of local agencies and organizations across Texas.



For more information about ECI or to refer a child, visit: <https://hhs.texas.gov/services/disability/early-childhood-intervention-services> or call 2-1-1.

## Extended Recheck Procedure

Use this optional procedure after the child has failed two sweep-check screens. Conduct it immediately after the second sweep-check screen.

1. Start with the right ear and set the frequency dial at 1000 Hz.
2. Set the decibel level to 40 dB and present the tone for two to three seconds. If the child does not respond to the tone, record 40+ (greater than 40 dB).
3. If the child responds at 40 dB, lower the intensity by 10 dB (to 30 dB) and present the tone again.
4. Continue to lower the dial in 10 dB steps until no response is obtained or until 20 dB is reached. If a response is obtained at 20 dB, record 20 dB.
5. When no response is obtained, increase the dial setting in 5 dB steps until the child responds to the tone.
6. Record the lowest dB results obtained at 1000 Hz for the right ear.
7. Reset the dial to 40 dB HL and turn the frequency dial to 2000 Hz.
8. Repeat steps 2 through 5 until you obtain the dB results for 2000 Hz and 4000 Hz.
9. Repeat the procedure for the left ear.

## Evaluation of Results

For each of the three frequencies listed, record the lowest level in decibels (dB) at which the child responds. Record the findings for both the right and left ears. Refer a child to his or her primary care provider if any one of the three frequencies is recorded at greater than 25 dB in either ear. See the Appendix for a reproducible version of the M-46 Referral form for parents of a child who is being referred for additional hearing testing.



*Schools and preschools should complete and keep a record of hearing screening for any child who is required to be screened.*

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## RECORDKEEPING AND REPORTING REQUIREMENTS OF FACILITIES

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Certain information must be kept about each child screened, and annual reports on hearing and vision screening must be submitted to DSHS by June 30 of each year.

Facilities must maintain screening records on each child for two years, including records of children who claimed an exemption. The records must be made available to DSHS for inspection in a timely manner upon request.

All facilities must submit annual reporting of Vision, Hearing, and Spinal Screening (VHSS) results on the Child Health Reporting System found online at <http://chrstx.dshs.texas.gov>. For best results, use Internet Explorer to view this website. Each facility is assigned a Facility ID Number and 'FIN' Code, which are used to log in to the website. For Facility ID Number and FIN Code information, call 512-776-7420 or your regional contact.

The 'User Account' tutorial in the top right-hand corner of the Child Health Reporting System web page gives instruction for creating your user account. A 'VHSS Data Entry' tutorial gives instruction for entering your Annual Report Data online. This manual provides brief instructions for submitting reports. For more detailed information, refer to the VHSS Data Entry tutorial.

Before you submit your report, verify each section to confirm that it is correct and print a copy for your personal records. You will not be able to edit or print a copy after you submit your report. The time period for entering your data is January 15 to June 30.

For information or questions about completing the Annual Reports online, please call the DSHS Vision and Hearing Program at 512-776-7420.

# USING THE ONLINE CHILD HEALTH REPORTING SYSTEM

The screenshot shows the login page for the Texas Child Health Reporting System. At the top left is the Texas Health and Human Services logo. The page title is "Child Health Reporting System". Below the title, there is a "Login:" section with two input fields: "User ID:" and "Password:". A "Submit" button is located below the password field. At the bottom, there are two blue links: "Click here - I forgot my User ID/Password - School/Child Care Facility User" and "Click here - To create a New User Account for your School/Childcare Facility".

## STEP 1

Log in.

The screenshot shows the main menu of the Texas Child Health Reporting System. The navigation bar includes "Immunization Report", "VHSS Data", "Reports", "Help", and "Logout". The "VHSS Data" menu is expanded, showing sub-options: "Vision / Hearing Screen" and "Spinal Screen". The user is logged in as "School" with version "2.00.01".

## STEP 2

Move your cursor over the 'VHSS Data' tab and click 'Vision / Hearing Screen' to begin.

The screenshot shows the screening selection screen. The "VHSS Data" menu is selected. The "Screening Type:" section has two radio buttons: "Vision" and "Hearing", with "Hearing" selected. Below this, it says "Hearing Screening School Year 2018-2019". There is a "Name" dropdown menu with "9876543210 | Public ISD" selected, a "Select" button, and a "Facility Name" input field with a "Find" button. An "Address" dropdown menu is also visible.

## STEP 3

Click 'Hearing' or 'Vision' and then click the 'Find' button.

The screenshot shows the contact information screen. The "Screening Type:" section now has "Hearing" selected. The "Name" dropdown menu is expanded, showing "123 School Road, Austin, TX 78701". A "Contact Info" button is visible next to the address. Below the address field, there is a "Step 1" section with an "Enter Hearing Screening Information" button. A note at the bottom right says: "Once you have entered some or all of your data, please save your screening information. You can return to Step 1 at any time before June 30 to edit your information."

## STEP 4

Click the 'Contact Info' button to view/update contact information, or click the 'Enter Hearing Screening Information' button to begin entering hearing data for your facility.

Click the 'Cancel' button to return to the previous screen or if you want to switch to Vision Screening.

Step 1 Once you have entered some or all of your data, please save your screening information. You can return to Step 1 at any time before June 30 to edit your information.

Grade	Late Exam Results From Last year's Professional Exam				Professional Exam				Referred Not Examined (G0)	Edit
	No. Problem Treatment	Total Number Screened (A0)	Number Failed (B0)	Number Referred (C0)	Number Transferred (D0)	No. Problem Treatment (E0)	Number Examined (F0)			
PK	0	0	0	0	0	0	0	0	0	EditPK
K	0	0	0	0	0	0	0	0	0	EditK
1	0	0	0	0	0	0	0	0	0	Edit1
2	0	0	0	0	0	0	0	0	0	Edit2
3	0	0	0	0	0	0	0	0	0	Edit3
4	0	0	0	0	0	0	0	0	0	Edit4
5	0	0	0	0	0	0	0	0	0	Edit5
6	0	0	0	0	0	0	0	0	0	Edit6
7	0	0	0	0	0	0	0	0	0	Edit7
8	0	0	0	0	0	0	0	0	0	Edit8
9	0	0	0	0	0	0	0	0	0	Edit9
10	0	0	0	0	0	0	0	0	0	Edit10
11	0	0	0	0	0	0	0	0	0	Edit11
12	0	0	0	0	0	0	0	0	0	Edit12
Totals	0	0	0	0	0	0	0	0	0	

Please Note: Column A0 refers to all students that have been screened, whether they pass or fail. Columns (B0-G0) refer only to those students who FAIL their screening. For every referral, you should indicate the result of the referral: transferred, no problem, treatment or not examined.

The following conditions must be satisfied for each grade.

1. Column A0 must be greater than or equal to column B0 + column C0.
2. Column B0 must be greater than or equal to column D0.
3. Column C0 must be equal to the sum of columns D0, E0, F0, and G0.

## STEP 5

Click the 'Edit' button to enter hearing screening data for that grade.

After clicking the 'Edit' button all of the data cells for that grade become editable. They are filled with 0s by default; you do not need to delete the 0s for cells that will not contain data.

Enter data in some of the cells now and click the 'Save' button to record your entries.

Your data entries are saved if valid; as data for other grades are entered, totals are computed and displayed in the last row.

You may click the 'Save Hearing Screening Information' button at any time during data entry if you want to return later to make changes or enter additional data. If you have finished entering your data, you will need to click the 'Save Hearing Screening Information' to proceed to submitting your final report.

## STEP 6

If you have finished editing your screening information and are ready to submit your final report, click the 'Submit Final Hearing Screening Information' button.

You will receive a message acknowledging your report has been submitted and will have the option to click the 'show report' button to view and print for your report.

**TEXAS** Child Health Reporting System  
Texas Department of State Health Services | Immunization Report | VHSS Data | Reports | Help | Logout | User: School Version: 2.00.01

Please select the screening type, and then click select next to your facility name.

Screening Type:  Vision  Hearing To change the screening selection, first click Cancel.

Hearing Screening School Year 2018-2019

PROBLEMS? Please contact us at [chrs.loginhelp@dshs.texas.gov](mailto:chrs.loginhelp@dshs.texas.gov)

Name: 9876543210 | Public ISD  Facility Name:

Address: 123 School Road, Austin, TX 78701

Step 1  Step 2

Attention: Do not proceed to Step 2 until you are done editing your report and are ready to submit your Final Screening Report. You will not be able to return to edit your results once you select Submit. After submitting your final screening information, you will be able to print your report.

The Vision screen report has been submitted to DHS successfully for Public ISD by nrsus2 on Monday, August 20, 2019.

## STEP 7

If you have finished editing or submitting your Hearing Screening Information and are ready to enter your Vision Screening information, click the 'Cancel' button next to facility name, and select screening type, 'Vision'.

If you select Vision Screening, you will follow the same steps as with Hearing.

**TEXAS** Child Health Reporting System  
Texas Department of State Health Services | Immunization Report | VHSS Data | Reports | Help | Logout | User: School Version: 2.00.01

Please select the screening type, and then click select next to your facility name.

Screening Type:  Vision  Hearing To change the screening selection, first click Cancel.

Hearing Screening School Year 2018-2019

PROBLEMS? Please contact us at [chrs.loginhelp@dshs.texas.gov](mailto:chrs.loginhelp@dshs.texas.gov)

Name: 9876543210 | Public ISD  Facility Name:

Address: 123 School Road, Austin, TX 78701



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## GLOSSARY

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**Acquired Hearing Loss:** hearing loss developed during a person's lifetime.

**Ambient Noise:** extraneous sounds in the surrounding area, particularly those in a specified hearing screening area.

**Attenuator:** a control capable of decreasing the amplitude of an audiometer's output signal without distorting its frequency.

**Audiologist:** a person who specializes in the field of hearing and particularly in hearing impairments.

**Audiometric Screening:** hearing testing procedures directed toward identifying individuals in need of further evaluation.

**Congenital Hearing Loss:** hearing loss present or existing at birth.

**Decibel (dB):** a unit for expressing the relative intensity of sounds on a scale from zero (for the average least-perceptible sound) to about 130 (for the average pain level); the abbreviation "dB" is both singular and plural.

**Facility:** a private or public school or preschool, licensed child care center, or child care home.

**Frequency:** one of the physical characteristics of sound; the number of cycles per second, measured in Hertz (Hz); pitch.

**Hearing Level (HL) for Pure Tone:** the minimum hearing level at which an individual is able to respond 50 percent of the time to a series of tone presentations.

**Hertz (Hz):** a unit of frequency equal to one cycle per second.

**Intensity:** one of the physical characteristics of sound, measured in decibels (dB): loudness or softness of a sound.

**Licensed Professional:** An individual whose legally defined scope of practice includes the area for which the screening is conducted, and who uses department-approved techniques or professional practice standards for the screening.

**Noise:** any sound that is unwanted, undesired, or interferes with one's hearing.

**Otitis Media:** inflammation or infection of the middle ear.

**Pinna/Auricle:** the most visible part of the outer ear.

**Pure Tone:** a tone of a single frequency produced by simple harmonic motion and characterized by its singularity of pitch.

**NOTES**

Two horizontal dashed lines are positioned above and below the word "NOTES". Below these lines, the page is filled with a series of horizontal solid lines, providing a ruled area for writing notes.

## HEARING APPENDIX





Child's Name: \_\_\_\_\_

Child's Age/Birthdate: \_\_\_\_\_

Name of Person Completing Checklist: \_\_\_\_\_

## SIGNS OF POSSIBLE HEARING DIFFICULTIES

### Behavioral Signs

- Frequently asks to have things repeated.
- Turns one side of the head toward the speaker.
- Watches and concentrates on the speaker's lips.
- Is inattentive in classroom discussions.
- Makes unusual spelling errors or frequent mistakes in following directions.
- Tends to isolate self or may be a discipline problem.
- Has a speech problem.
- Does not work at apparent capacity.
- Has experienced academic failure following severe illness.

Other (please explain):

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### Physical Symptoms

- Breathing through the mouth.
- Draining ears.
- Dizziness.
- Reports ringing, buzzing, or roaring in ears.



Child's Name: \_\_\_\_\_

Child's Age/Birthdate: \_\_\_\_\_

Name of Person Completing Checklist: \_\_\_\_\_

## SIGNS OF POSSIBLE HEARING DIFFICULTIES

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- Frequently asks to have things repeated.
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- Breathing through the mouth.
- Draining ears.
- Dizziness.
- Reports ringing, buzzing, or roaring in ears.

Other (please explain):

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## AUDIOMETER MONTHLY BIOLOGICAL CALIBRATION CHECK PROCEDURE

**All individuals must be able to hear all frequencies at 25 dB or better.**

Screen the individual at an intensity of 25 dB HL in each ear at the following frequencies: 1000, 2000, 4000, 6000, 500, and 250 Hz, in that order.

1. Start with the right ear and set the frequency dial at 1000 Hz.
2. **Set the HL dial at 40 dB HL and present the tone for two to three seconds.**
3. **If the individual responds, lower the intensity by 10 dB HL (to 30 dB HL on the HL dial) and present the tone again.**
4. Continue to **lower** the HL dial in **10 dB** steps until no response is obtained or until 20 dB is reached.
5. If no response is obtained, **increase** the HL dial setting in **5 dB** steps until the individual again signals that the tone is heard and **Record** this numeric HL setting at 1000 Hz for the right ear.
6. Reset the HL dial at 40 dB HL and turn the frequency control dial to 2000. Hz.
7. Repeat the sequence (steps number 3–6) until you establish the numeric HL setting for 2000 Hz and record it.
8. Continue in this manner for each of the frequencies in the following sequence: 4000, 6000, 500, and 250 Hz. Remember, each time you begin screening a new frequency, return the HL dial to 40 dB and begin the sequences of down 10 until the individual does not respond and up 5 until the individual responds, or 20 dB is reached.
9. **Establish and record the numeric HL setting for all six frequencies in the right ear.**
10. **Set the output selector to the left ear and begin the procedure on that ear at 1000 Hz.** The sequence remains the same for the left ear: 1000, 2000, 4000, 6000, 500, and 250 Hz. **Numeric HL settings are recorded in the same manner as for the right ear.**
11. Once the numeric HL settings for all frequencies in the right and left ears have been recorded, the base line procedure is complete.
12. Each month following when the audiometer is in use, check the base line for one of the other individuals above. If you detect a hearing difference of 5 dB or greater for any of the screening frequencies between 250 Hz and 6000 Hz on the monthly check of one individual, check one of the other two people. Record this information at the bottom part of the form.
13. If you can confirm a change of 5 dB or more in the same direction from the additional biological checks, the audiometer needs an electronic calibration.
14. A distorted signal or attenuator/tone switch transients also indicates a need for calibration.

NOTE: If the listener responds to a frequency at 20 dB, record the numeric HL setting as 20 dB for that frequency.



## AUDIOMETER MONTHLY BIOLOGICAL CALIBRATION CHECK PROCEDURE

**All individuals must be able to hear all frequencies at 25 dB or better.**

Screen the individual at an intensity of 25 dB HL in each ear at the following frequencies: 1000, 2000, 4000, 6000, 500, and 250 Hz, in that order.

1. Start with the right ear and set the frequency dial at 1000 Hz.
2. **Set the HL dial at 40 dB HL and present the tone for two to three seconds.**
3. **If the individual responds, lower the intensity by 10 dB HL (to 30 dB HL on the HL dial) and present the tone again.**
4. Continue to **lower** the HL dial in **10 dB** steps until no response is obtained or until 20 dB is reached.
5. If no response is obtained, **increase** the HL dial setting in **5 dB** steps until the individual again signals that the tone is heard and **Record** this numeric HL setting at 1000 Hz for the right ear.
6. Reset the HL dial at 40 dB HL and turn the frequency control dial to 2000. Hz.
7. Repeat the sequence (steps number 3–6) until you establish the numeric HL setting for 2000 Hz and record it.
8. Continue in this manner for each of the frequencies in the following sequence: 4000, 6000, 500, and 250 Hz. Remember, each time you begin screening a new frequency, return the HL dial to 40 dB and begin the sequences of down 10 until the individual does not respond and up 5 until the individual responds, or 20 dB is reached.
9. **Establish and record the numeric HL setting for all six frequencies in the right ear.**
10. **Set the output selector to the left ear and begin the procedure on that ear at 1000 Hz.** The sequence remains the same for the left ear: 1000, 2000, 4000, 6000, 500, and 250 Hz. **Numeric HL settings are recorded in the same manner as for the right ear.**
11. Once the numeric HL settings for all frequencies in the right and left ears have been recorded, the base line procedure is complete.
12. Each month following when the audiometer is in use, check the base line for one of the other individuals above. If you detect a hearing difference of 5 dB or greater for any of the screening frequencies between 250 Hz and 6000 Hz on the monthly check of one individual, check one of the other two people. Record this information at the bottom part of the form.
13. If you can confirm a change of 5 dB or more in the same direction from the additional biological checks, the audiometer needs an electronic calibration.
14. A distorted signal or attenuator/tone switch transients also indicates a need for calibration.

NOTE: If the listener responds to a frequency at 20 dB, record the numeric HL setting as 20 dB for that frequency.



# AUDIOMETER MONTHLY BIOLOGICAL CALIBRATION CHECK (M-45)

Mfg. \_\_\_\_\_ Model Serial #: \_\_\_\_\_ Owner: \_\_\_\_\_

Date of last calibration: \_\_\_\_\_ Assigned to: \_\_\_\_\_

<b>HEARING SCREENING REFERENCE DATA</b> (Obtain after calibration)								
Names of three individuals	Ear	6	5	1	2	3	4	Date
		250	500	1000	2000	4000	6000	
1.	R							
	L							
2.	R							
	L							
3.	R							
	L							
<b>RECORD MONTHLY RESULTS ON ONE OF THE ABOVE</b>								
	R							
	L							
	R							
	L							
	R							
	L							
	R							
	L							
	R							
	L							
	R							
	L							
	R							
	L							
	R							
	L							
	R							
	L							



# AUDIOMETER MONTHLY BIOLOGICAL CALIBRATION CHECK (M-45)

Mfg. \_\_\_\_\_ Model Serial #: \_\_\_\_\_ Owner: \_\_\_\_\_

Date of last calibration: \_\_\_\_\_ Assigned to: \_\_\_\_\_

HEARING SCREENING REFERENCE DATA (Obtain after calibration)								
Names of three individuals	Ear	6	5	1	2	3	4	Date
		250	500	1000	2000	4000	6000	
1.	R							
	L							
2.	R							
	L							
3.	R							
	L							
RECORD MONTHLY RESULTS ON ONE OF THE ABOVE								
	R							
	L							
	R							
	L							
	R							
	L							
	R							
	L							
	R							
	L							
	R							
	L							
	R							
	L							
	R							
	L							
	R							
	L							





## INDIVIDUAL SWEEP-CHECK SCREENING (M-40)

Student's name: \_\_\_\_\_ Age/Grade: \_\_\_\_\_

School: \_\_\_\_\_ Teacher: \_\_\_\_\_

### Sweep-Check Screening

1. Instruct and condition each child appropriately for age/grade.
2. Screen three frequencies at 25 dB; begin screening at 1000 Hz.
3. Identify responses with a "+"; identify no response with a "-."
4. Sequence of tone presentations is numbered 1-3 below.

First Screen	Ear	1	2	3	Results
		1000 Hz	2000 Hz	4000 Hz	
	R				<input type="checkbox"/> Pass <input type="checkbox"/> Rescreen <input type="checkbox"/> Fail/Refer
Date:	L				

Comments: \_\_\_\_\_

Signature of Screener: \_\_\_\_\_ Print Name \_\_\_\_\_

Children failing to respond to **ONE** (of the three) frequencies in **EITHER EAR** should be rescreened with another sweep-check within three to four weeks. (Signs or symptoms alone would be sufficient for referral.) Failure of **ONE** frequency in either ear on the second sweep-check screen requires a referral or an **Extended Recheck**. If a failure of one frequency occurs when performing the extended recheck, a referral is required.

Second Screen	Ear	1	2	3	Results
		1000 Hz	2000 Hz	4000 Hz	
	R				<input type="checkbox"/> Pass <input type="checkbox"/> Fail
Date:	L				

Comments: \_\_\_\_\_

Signature of Screener: \_\_\_\_\_ Print Name \_\_\_\_\_

### Extended Recheck Results

For each of the three frequencies listed, starting at 40 dB; begin screening at 1000 Hz. record the lowest level in decibels (dB) at which the child responds. Record the findings for both the right and left ears. A child should be referred to an appropriately licensed professional if any one of the three frequencies is recorded as greater than 25 dB in either ear.

Extended Recheck	Ear	1	2	3	Results
		1000 Hz	2000 Hz	4000 Hz	
	R	dB	dB	dB	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
Date:	L	dB	dB	dB	

Comments: \_\_\_\_\_

Signature of Screener: \_\_\_\_\_ Print Name \_\_\_\_\_

**ATTENTION PARENT:** The Vision and Hearing Screening Program requires that every child have an eye examination or an approved vision screening test prior to or within 120 days after entry into a Texas public or private preschool or school, licensed child care center, or child care home.

The tests conducted to evaluate your child's vision or hearing are screens; they are not diagnostic. This means that if your child fails a screen, it is necessary for him or her to be evaluated by his or her primary care provider to determine whether there is a vision problem. It also means that on some occasions a vision problem may exist that the screens will not identify.

**\*\*\* WAIVER OF REFERRAL \*\*\***

My child \_\_\_\_\_ (name of child) is being seen  
by a physician, \_\_\_\_\_ (doctor's name), for  
the problem(s) indicated.

Parent's Signature \_\_\_\_\_ Date \_\_\_\_\_

**If "Waiver of Referral" is complete, it should be returned to the school.**

## INDIVIDUAL SWEEP-CHECK SCREENING (M-40)

Student's name: \_\_\_\_\_ Age/Grade: \_\_\_\_\_

School: \_\_\_\_\_ Teacher: \_\_\_\_\_

### Sweep-Check Screening

1. Instruct and condition each child appropriately for age/grade.
2. Screen three frequencies at 25 dB; begin screening at 1000 Hz.
3. Identify responses with a "+"; identify no response with a "-."
4. Sequence of tone presentations is numbered 1-3 below.

First Screen	Ear	1	2	3	Results
		1000 Hz	2000 Hz	4000 Hz	
	R				<input type="checkbox"/> Pass <input type="checkbox"/> Rescreen <input type="checkbox"/> Fail/Refer
Date:	L				

Comments: \_\_\_\_\_

Signature of Screener: \_\_\_\_\_ Print Name \_\_\_\_\_

Children failing to respond to **ONE** (of the three) frequencies in **EITHER EAR** should be rescreened with another sweep-check within three to four weeks. (Signs or symptoms alone would be sufficient for referral.) Failure of **ONE** frequency in either ear on the second sweep-check screen requires a referral or an **Extended Recheck**. If a failure of one frequency occurs when performing the extended recheck, a referral is required.

Second Screen	Ear	1	2	3	Results
		1000 Hz	2000 Hz	4000 Hz	
	R				<input type="checkbox"/> Pass <input type="checkbox"/> Fail
Date:	L				

Comments: \_\_\_\_\_

Signature of Screener: \_\_\_\_\_ Print Name \_\_\_\_\_

### Extended Recheck Results

For each of the three frequencies listed, starting at 40 dB, record the lowest level in decibels (dB) at which the child responds. Record the findings for both the right and left ears. A child should be referred to an appropriately licensed professional if any one of the three frequencies is recorded as greater than 25 dB in either ear.

Extended Recheck	Ear	1	2	3	Results
		1000 Hz	2000 Hz	4000 Hz	
	R	dB	dB	dB	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
Date:	L	dB	dB	dB	

Comments: \_\_\_\_\_

Signature of Screener: \_\_\_\_\_ Print Name \_\_\_\_\_

**ATTENTION PARENT:** The Vision and Hearing Screening Program requires that every child have an eye examination or an approved vision screening test prior to or within 120 days after entry into a Texas public or private preschool or school, licensed child care center, or child care home.

The tests conducted to evaluate your child's vision or hearing are screens; they are not diagnostic. This means that if your child fails a screen, it is necessary for him or her to be evaluated by his or her primary care provider to determine whether there is a vision problem. It also means that on some occasions a vision problem may exist that the screens will not identify.

**\*\*\* WAIVER OF REFERRAL \*\*\***

My child \_\_\_\_\_ (name of child) is being seen  
by a physician, \_\_\_\_\_ (doctor's name), for  
the problem(s) indicated.

Parent's Signature \_\_\_\_\_ Date \_\_\_\_\_

**If "Waiver of Referral" is complete, it should be returned to the school.**

## CLASS SWEEP-CHECK SCREENING (M-20)

School: \_\_\_\_\_ Grade: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Screener: \_\_\_\_\_ Print Name: \_\_\_\_\_

**THE INFORMATION ENTERED ON THIS FORM  
IS NOT TO BE USED FOR DIAGNOSTIC PURPOSES.**

1. Screen 3 frequencies at 25 dB HL.
2. Make a plus mark for each tone heard “+.”
3. Identify failure to respond with a minus “-.”
4. Sequence of tone presentation is numbered 1-3 below.

Student Name	Ear	1	2	3	Results
		1000 Hz	2000 Hz	4000 Hz	
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				

Student Name	Ear	1	2	3	Results
		1000 Hz	2000 Hz	4000 Hz	
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				

## CLASS SWEEP-CHECK SCREENING (M-20)

School: \_\_\_\_\_ Grade: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Screener: \_\_\_\_\_ Print Name: \_\_\_\_\_

**THE INFORMATION ENTERED ON THIS FORM  
IS NOT TO BE USED FOR DIAGNOSTIC PURPOSES.**

1. Screen 3 frequencies at 25 dB HL.
2. Make a plus mark for each tone heard “+.”
3. Identify failure to respond with a minus “-.”
4. Sequence of tone presentation is numbered 1-3 below.

Student Name	Ear	1	2	3	Results
		1000 Hz	2000 Hz	4000 Hz	
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				

Student Name	Ear	1	2	3	Results
		1000 Hz	2000 Hz	4000 Hz	
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
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	R				
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	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				
	R				
	L				



**LETTER OF REFERRAL  
FOR A PROFESSIONAL HEARING EXAMINATION  
HEARING REFERRAL FORM**

For: \_\_\_\_\_

Dear Parent(s)/Guardian(s):

After reviewing your child's hearing screening results/observational comments there is an indication that your child may have difficulty hearing. We urge you to take him/her to an appropriately licensed professional for further evaluation.

When your child is examined, please ask that the following information be completed and returned to the school. Your prompt response will benefit your child.

Sincerely, School Name: \_\_\_\_\_

Address: \_\_\_\_\_

=====

**RESPONSE TO HEARING REFERRAL**

This child has been referred to you for further evaluation and/or treatment. Attached are the hearing screening results and/or observational comments that indicate the child may have hearing impairment that could affect his/her educational advancement. Please complete the following:

Date examined: \_\_\_\_\_

**Results:**

**Specify:**

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

**Recommendation:** \_\_\_\_\_

\_\_\_\_\_

Comments: \_\_\_\_\_

Signature: \_\_\_\_\_ Title: \_\_\_\_\_

**RETURN COMPLETED REFERRAL TO THE CHILD'S SCHOOL.**



**LETTER OF REFERRAL  
FOR A PROFESSIONAL HEARING EXAMINATION  
HEARING REFERRAL FORM**

For: \_\_\_\_\_

Dear Parent(s)/Guardian(s):

After reviewing your child's hearing screening results/observational comments there is an indication that your child may have difficulty hearing. We urge you to take him/her to an appropriately licensed professional for further evaluation.

When your child is examined, please ask that the following information be completed and returned to the school. Your prompt response will benefit your child.

Sincerely, School Name: \_\_\_\_\_

Address: \_\_\_\_\_

=====

**RESPONSE TO HEARING REFERRAL**

This child has been referred to you for further evaluation and/or treatment. Attached are the hearing screening results and/or observational comments that indicate the child may have hearing impairment that could affect his/her educational advancement. Please complete the following:

Date examined: \_\_\_\_\_

**Results:**

**Specify:**

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

**Recommendation:** \_\_\_\_\_

\_\_\_\_\_

Comments: \_\_\_\_\_

Signature: \_\_\_\_\_ Title: \_\_\_\_\_

**RETURN COMPLETED REFERRAL TO THE CHILD'S SCHOOL.**



# CARTA DE DERIVACIÓN PARA PRUEBA PROFESIONAL DE AUDICIÓN

## FORMULARIO DE DERIVACIÓN PARA LA AUDICIÓN

Para: \_\_\_\_\_

Estimado(s) padre(s) / tutor(es):

Después de haber revisado los resultados o los comentarios de observación del examen de audición de su hijo(a), hay una indicación de que su hijo(a) quizá tenga problemas de audición. Rogamos que usted(es) lo(a) lleve(n) a un profesional apropiadamente autorizado para una evaluación más completa.

Cuando se le haga el examen a su hijo(a), sírvase pedir que se llene por completo la siguiente información y regrésela a la escuela. Su respuesta inmediata le beneficiará a su hijo(a).

Atentamente      Nombre de la escuela: \_\_\_\_\_

Dirección: \_\_\_\_\_

=====

### RESPONSE TO HEARING REFERRAL

This child has been referred to you for further evaluation and/or treatment. Attached are the hearing screening results and/or observational comments that indicate the child may have hearing impairment that could affect his/her educational advancement. Please complete the following:

Date examined: \_\_\_\_\_

**Results:**

**Specify:**

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

**Recommendation:** \_\_\_\_\_

\_\_\_\_\_

**Recommendation:** \_\_\_\_\_

\_\_\_\_\_

Signature: \_\_\_\_\_ Title: \_\_\_\_\_

### RETURN COMPLETED REFERRAL TO THE CHILD'S SCHOOL

(M-46)

Revisado en julio de 2014



# CARTA DE DERIVACIÓN PARA PRUEBA PROFESIONAL DE AUDICIÓN

## FORMULARIO DE DERIVACIÓN PARA LA AUDICIÓN

Para: \_\_\_\_\_

Estimado(s) padre(s) / tutor(es):

Después de haber revisado los resultados o los comentarios de observación del examen de audición de su hijo(a), hay una indicación de que su hijo(a) quizá tenga problemas de audición. Rogamos que usted(es) lo(a) lleve(n) a un profesional apropiadamente autorizado para una evaluación más completa.

Cuando se le haga el examen a su hijo(a), sírvase pedir que se llene por completo la siguiente información y regrésela a la escuela. Su respuesta inmediata le beneficiará a su hijo(a).

Atentamente      Nombre de la escuela: \_\_\_\_\_

Dirección: \_\_\_\_\_

=====

### RESPONSE TO HEARING REFERRAL

This child has been referred to you for further evaluation and/or treatment. Attached are the hearing screening results and/or observational comments that indicate the child may have hearing impairment that could affect his/her educational advancement. Please complete the following:

Date examined: \_\_\_\_\_

**Results:**

**Specify:**

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

**Recommendation:** \_\_\_\_\_

\_\_\_\_\_

**Recommendation:** \_\_\_\_\_

\_\_\_\_\_

Signature: \_\_\_\_\_ Title: \_\_\_\_\_

### RETURN COMPLETED REFERRAL TO THE CHILD'S SCHOOL

(M-46)

Revisado en julio de 2014





## TEXAS ADMINISTRATIVE CODE

Title 25. Health Services

Part 1. Department of State Health Services

Chapter 37. Maternal and Infant Health Services

Subchapter C. Vision and Hearing Screening.

**§37.21. Purpose.** The purpose of this subchapter is to implement Texas Health and Safety Code, Chapter 36, concerning the early identification of individuals from birth through 20 years of age who have special senses and communication disorders and who need remedial vision, hearing, speech, or language services.

**§37.22. Definitions.** The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise.

- (1) **American Academy of Pediatrics (AAP)** – The AAP is a nationally recognized professional organization which issues recommended standards pertaining to the health and well-being of children.
- (2) **American Association for Pediatric Ophthalmology and Strabismus (AAPOS)** – AAPOS is a nationally-recognized professional body which, in conjunction with the AAP, issues recommended vision screening standards. The goals of AAPOS are to advance the quality of children’s eye care, support the training of pediatric ophthalmologists, support research activities in pediatric ophthalmology, and advance the care of adults with strabismus.
- (3) **American National Standards Institute, Inc. (ANSI)** – The national coordinator of standards development and the United States clearinghouse for information on national and international standards.
- (4) **Audiometer** – An electrical device for testing hearing, and for measuring bone and air conduction of sound.
- (5) **Audiometric calibration equipment** – Electro-acoustical equipment used to calibrate audiometers and audiometric testing devices. The term includes frequency counters, voltmeters, and distortion measuring equipment used to calibrate audiometers and audiometric testing devices.
- (6) **Audiometric testing device** – An electro-acoustical generator that provides acoustic energy of a calibrated output.
- (7) **Biological calibration check** – The process of testing a person having a known, stable audiometric curve that does not exceed 25 decibels (dB) hearing level at any frequency between 250 and 6000 Hertz (Hz), and comparing the test results with the subject’s known baseline audiogram.
- (8) **Calibration** – The process of comparing an instrument or device with a standard to determine its accuracy and to make the necessary repairs or adjustments to assure that the operating characteristics are within the allowable limits established by a national standard, all in accordance with applicable legal requirements.
- (9) **Certification** – The process by which the Department of State Health Services (department) trains individuals to conduct vision and/or hearing screening or provides training to instructors. The applicable certification is awarded following the successful completion of any of the course scenarios in this paragraph.
- (10) **dB** – The decibel is a unit for expressing the relative intensity of sounds on a scale from zero for the average least perceptible sound to approximately 130 for the average pain level.

- (11) **Exhaustive calibration** – A calibration that tests all settings for both earphones.
- (12) **Extended recheck** – A screen used after the child has failed two sweep-check screens. The screener may perform an extended recheck or initiate a referral for a professional examination, as defined in this section, after the two failed sweep-check screens.
- (13) **Facility** – Includes public or private preschools and schools, as defined as follows:
  - (A) schools, as the term is defined at Texas Health and Safety Code, §36.003(7);
  - (B) preschools, as the term is defined at Texas Health and Safety Code, §36.003(3);
  - (C) child care centers licensed by the Department of Family and Protective Services (DFPS); and
  - (D) child care homes licensed by DFPS.
- (14) **Hz** – Hertz is a unit of frequency equal to one cycle per second.
- (15) **Licensed professional** – An individual whose legally-defined scope of practice under the license includes knowledge and experience in conducting professional examinations and screenings for vision and/or hearing abnormalities in children, all consistent with this subchapter and Texas Health and Safety Code, Chapter 36. The terms “professional examination” and “screening” are as defined in this section.
- (16) **Pass/Fail** – Allowable documentation of results of vision screening when photoscreening is used for vision screening, in accordance with this subchapter. The documentation of the screening results is in lieu of visual acuity results using “20/20” format.
- (17) **Photoscreening** – A form of pediatric vision screening that uses a special-purpose camera to determine how well a child can see. It is an alternative under this subchapter to visual acuity-based screening with an eye chart for certain children, as specified herein. Other related terms are: autorefractor, objective screening and instrument-based screening. Photoscreening cannot determine exactly how well a child’s visual acuity is developing. Important factors that affect visual acuity such as accommodative ability (focusing ability), binocular vision development, and other eye health issues are not assessed via photoscreening.
- (18) **Professional examination (also referred to as examination)** – A diagnostic evaluation performed by an appropriately licensed professional or by a department-certified individual whose expertise addresses the diagnostic needs of the individual identified as having a possible special senses or communication disorder. A professional examination is one that is done according to the requirements of this subchapter and of the Texas Health and Safety Code, Chapter 36.
- (19) **Program** – The department’s Vision and Hearing Screening Program.
- (20) **Pure-tone audiometer** – A pure-tone audiometer electronically generates pure-tones which are used as signals to test a person’s hearing.
- (21) **Reporting year** – A 12-month period beginning June 1 of each year and ending May 31 of the following year.
- (22) **Screening** – A test or battery of tests for rapidly determining the need for a professional examination.
- (23) **Screening equipment** – An instrument or device used to perform a measurement or measurements for the assessment of sensory abilities.
- (24) **Sweep-check** – A quick hearing screening test using a pure-tone audiometer to determine whether a person can hear the following frequencies: 1000 Hz, 2000 Hz, and 4000 Hz at less than or equal to 25 dB.
- (25) **Telebinocular instrument** – A stereoscopic instrument for screening various eye defects and measuring visual acuity.

- (26) **Testing equipment** – An instrument or device used under this subchapter to perform a measurement or measurements to substantiate or verify the presence or absence of sensory impairment(s).
- (27) **Tests** – Procedures under this subchapter to measure special senses and communication functions.
- (28) **Visual acuity** – The relative ability of the visual organ to resolve detail that is measured and recorded using an internationally recognized, two-figured indicator, such as 20/20.

**§37.23. Vision Screening.**

- (a) Screening is required, for individuals who attend a facility, to detect vision disorders. Vision screening conducted under this subchapter by a person who is not a licensed professional, as the term is defined in this subchapter, must be conducted following the national standards set by AAPOS currently found at <http://www.aapos.org/terms/conditions/131>, as revised, as they apply to age, verbal ability, ability to cooperate with screening, allowable methods of screening in different situations, and referral criteria, with the following exceptions.
  - (1) For children less than five years of age, refer for a professional examination when there is a difference of two lines between passing acuities in either eye.
  - (2) For children five years of age and older, refer for a professional examination when screening results indicate visual acuity of less than 20/30 in either eye (rather than 20/32 as listed in the AAPOS standards).
  - (3) In addition to AAPOS' recommendation regarding photoscreening for children 42 months to five years of age, photoscreening may be used for any individual (referenced in §37.21 of this title (relating to Purpose) with disabilities who does not respond well to other allowable screening methods. A referral to a professional examination is recommended if the individual fails the photoscreening.
- (b) A person who is not a “licensed professional,” as that term is defined in this subchapter, who conducts vision screening must be trained and certified as described in §37.27 of this title (relating to Standards and Requirements for Screening Certification and Instructor Training).
- (c) When a screener makes a referral based on the screening results under subsection (a) of this section, that referral shall be to a licensed professional for a professional examination, and not to a specific individual.
- (d) The requirements of this section do not apply when the individual is already actively under medical care by an appropriate licensed professional for one or more of the vision problems for which screening is done under this section. In order to claim this exception, the individual under the scenarios described at Texas Family Code, §32.003 or, if the individual is a minor, the individual's parent, managing conservator or legal guardian, must submit documentation from the licensed professional to the facility. The documentation must be signed and dated by the licensed professional, and must affirmatively state that the individual is under active, ongoing medical care from the licensed professional for specific vision problems as referenced in this subsection.

**§37.24. Hearing Screening.**

- (a) Screening is required, for individuals who attend a facility, to detect hearing disorders. Hearing screening under this subchapter must be conducted using screening methods and referral criteria, and in compliance with other requirements, as follows.

- (b) A person who is not a “licensed professional,” as that term is defined in this subchapter, who conducts hearing screening must be trained and certified as described in §37.27 of this title (relating to Standards and Requirements for Screening Certification and Instructor Training).
- (c) A pure-tone audiometer shall be used to conduct a sweep-check screen.
- (d) Screening results shall be recorded for each ear at less than or equal to 25 dB for 1000 Hz, 2000 Hz, and 4000 Hz.
- (e) A rescreen with another sweep-check is recommended if test results indicate failure to respond to any of the three frequencies in either ear, and it should be conducted no sooner than three weeks but not more than four weeks after the initial screening.
- (f) An extended recheck may be conducted or a referral to a professional examination shall be made for all children whose test results indicate failure to respond to any of the three frequencies in either ear on the second sweep-check.
- (g) If the extended recheck results in a failure to respond to any frequency in either ear at greater than 25dB, the screener must recommend that a professional examination be immediately conducted.
- (h) An extended recheck shall be conducted according to the following procedures.
  - (1) Beginning with the right ear, present the tone at 40 dB hearing level (HL) and at 1000 Hz for two to three seconds. If no response is obtained, record ”greater than 40 dB.”
  - (2) If the child responds at 40 dB, lower the intensity to 30 dB HL and present the tone again.
  - (3) Lower the HL in 10 dB increments until no response is obtained, or until 20 dB is reached. If a response is obtained at 20 dB, record ”20 dB.”
  - (4) If no response is obtained, increase the HL dial in 5 dB increments until a response is obtained. Record the dB results obtained at 1000 Hz for the right ear.
  - (5) Repeat steps in paragraphs (1) - (4) of this subsection at 40 dB HL for 2000 Hz and 4000 Hz.
  - (6) Repeat steps in paragraphs (1) - (5) of this subsection for the left ear.
- (i) When a screener makes a referral based on the screening results under subsection (a) of this section, that referral shall be to a licensed professional for a professional examination, and not to a specific individual.
- (j) The requirements of this section do not apply when the individual is already actively under medical care by an appropriate licensed professional for one or more of the hearing problems for which screening is done under this section. In order to claim this exception, the individual under the scenarios described at Texas Family Code, §32.003 or, if the individual is a minor, the individual’s parent, managing conservator or legal guardian, must submit documentation from the licensed professional to the facility. The documentation must be signed and dated by the licensed professional, and must affirmatively state that the individual is under active, ongoing medical care from the licensed professional for specific hearing problems as referenced in this subsection.

**§37.25. Facility Requirements; Department Activities.**

- (a) The chief administrator of each facility shall ensure that each individual admitted to the facility complies with the screening requirements of this subchapter (including ensuring that any screening done is performed by a properly certified screener), according to the following schedule.

- (1) Children four years of age or older, who are enrolled in any facility for the first time, must be screened for possible vision and hearing problems within 120 calendar days of enrollment. If a child is enrolled within 60 days of the date a facility closes for the Summer, the child's vision and hearing must be tested within 120 days of the beginning of the following school year.
  - (2) Children enrolled in pre-kindergarten and kindergarten must be screened each year within 120 days of enrollment.
  - (3) Children enrolled in the first, third, fifth, and seventh grades must receive vision and hearing screening in each of those grade years (can be done at any time during each of those years).
  - (4) Except for children enrolled in pre-kindergarten, kindergarten or first grade, a facility shall exempt any child from screening as required by paragraphs (1) - (3) of this subsection if the child's parent, managing conservator, or legal guardian, or the individual under the scenarios described at Texas Family Code, §32.003, submits a record to the facility showing that a professional examination was properly conducted during the grade year in question or during the previous year. The record must be submitted to the facility during the grade year in which the screening would otherwise be required.
  - (5) Children enrolled in a facility who turn four years of age after September 1 of that year are exempt from screening until the following September.
  - (6) Upon written request pre-approved by the department, the screening of vision and hearing performed at a facility may occur on an even-year schedule (i.e., pre-kindergarten, kindergarten, and first, second, fourth, and sixth grades instead of pre-kindergarten, kindergarten, and first, third, fifth, and seventh grades). Any department approval will include conditions so that children do not miss necessary screening during the transition.
- (b) A child's parent, managing conservator, or legal guardian, or the individual under the scenarios described at Texas Family Code, §32.003, may execute an affidavit stating that a person, other than the individual secured by the facility to conduct screenings at the facility, shall conduct the screening (or that a licensed professional shall conduct an examination) as soon as is feasible. The facility may admit the child on a provisional basis for up to 60 days, or may deny admission until the screening record(s) are provided to the facility.
  - (c) A facility shall not require a child to be screened if the child's parent, managing conservator, or legal guardian, or the individual under the scenarios described at Texas Family Code, §32.003, submits to the facility, on or before the date vision or hearing screening is scheduled, an affidavit in lieu of the screening record(s) stating that the vision or hearing screening conflicts with the tenets and practices of a church or religious denomination of which the affiant is an adherent or member.
  - (d) Only individuals who have completed high school may serve as volunteer assistants during vision and/or hearing screenings. It is the responsibility of the certified screener to determine how any volunteer assistant(s) will be used during the screening process, consistent with all state and federal confidentiality requirements.

**§37.26. Recordkeeping and Reporting.**

- (a) Individuals conducting screenings under this subchapter must comply with the following recordkeeping and reporting requirements.
  - (1) Individuals conducting screenings at the facility (and those other than licensed professionals conducting screenings outside of the facility) shall document in each child's screening record the

specific screening conducted, the date the screening was conducted, observations made during the screening, and the final results of the screening. The individual shall also ensure that the following are included in the documentation: the name of the child, age or birthdate of the child, and whether the child is wearing corrective lenses during the vision screening. The documentation required under this subsection must also be signed and dated by the person who conducted the screening.

- (2) Individuals using photoscreening for vision screening must comply with the recordkeeping and reporting requirements detailed at §37.27(b)(2) of this title (relating to Standards and Requirements for Screening Certification and Instructor training). Additionally, prior to conducting photoscreening at a facility, the individual must submit copies of these same documents to that facility in addition to the documents which must be submitted under subsection (b)(3) of this section.
  - (3) Individuals using a telebinocular instrument for vision screening must comply with the recordkeeping and reporting requirements detailed at §37.27(b)(3) of this title. Additionally, prior to conducting telebinocular screening at a facility, the individual must submit copies of these same documents to that facility.
  - (4) Individuals conducting screenings at a facility (and those other than licensed professionals conducting screening outside of the facility) shall submit the documentation referenced in paragraph (1) of this subsection to the facility at the time of that screening.
  - (5) Individuals must submit documentation to the department related to certifications and refresher courses, as specified in §37.27 of this title.
- (b) Facilities must comply with the following recordkeeping and reporting requirements.
- (1) Each facility shall maintain vision and hearing screening records under this section onsite for at least two years.
  - (2) A facility must maintain screening records regarding any individual claiming the exemptions found in §37.23(d) of this title (relating to Vision Screening) and/or §37.24(j) of this title (relating to Hearing Screening) for at least two years.
  - (3) A facility shall maintain the records it receives from screeners under subsection (a)(2) of this section, related to the use of photoscreening for vision screening at the facility for at least two years.
  - (4) An individual's screening records may be transferred among facilities without the consent of the individual under the scenarios described at Texas Family Code, §32.003 or, if the individual is a minor, the minor's parent, managing conservator, or legal guardian, pursuant to Texas Health and Safety Code, §36.006(c).
  - (5) The recordkeeping required in this section must be made available to the department in a timely manner upon request. The department may, directly or through its authorized representative, enter a facility and inspect records maintained relating to vision and hearing screening.
  - (6) On or before June 30 of each year, each facility shall submit to the department a complete and accurate annual report on the vision and hearing screening status of its aggregate population screened during the reporting year. Facilities shall report in the manner specified by the department (currently found at <http://chrstx.dshs.state.tx.us>). Facilities are required to report on the following categories.

- (A) For hearing screening--The total number screened; the number who failed; the number referred for professional examination; the number transferred out of the facility prior to the facility receiving the professional examination results; professional examination results indicating none of the disorders present which are screened for under this section; professional examination results indicating a disorder(s) which is screened for under this section; and referral for a professional examination with no indication that a professional examination was ever done.
- (B) For vision screening--The total number screened; the total number screened with correction (e.g. glasses or contacts); the total number screened with photoscreening; the number who failed; the number referred for professional examination; the number transferred out of the facility prior to the facility receiving the professional examination results; professional examination results indicating none of the disorders present which are screened for under this section; professional examination results indicating a disorder(s) which is screened for under this section; and referral for a professional examination with no indication that a professional examination was ever done. The “total number screened” includes the number screened with telebinocular screening.
- (c) There are additional recordkeeping requirements in §37.28(f) and (g) of this title (relating to Hearing Screening Equipment Standards and Requirements) for individuals or entities who own and/or use audiometers and audiometric screening equipment.
- (d) For all submissions to the department under this subchapter, use the following contact information (unless otherwise specified): Vision, Hearing and Spinal Screening Program, Department of State Health Services, Mail Code 1978, P.O. Box 149347, Austin, Texas 78714-9347.

**§37.27. Standards and Requirements for Screening Certification and Instructor Training.**

- (a) Individuals who conduct vision and/or hearing screening must be certified under this section unless the screening is conducted by a licensed professional. There are two options for obtaining this certification: a certificate issued directly by the department; or a certificate issued by an instructor who has been trained and authorized by the department to issue certificates. There is no cost to taking the course in either scenario.
  - (1) The department offers certification courses, and issues certificates to those who successfully complete them. To be eligible to take the department’s certification course, an individual must be a high school graduate and sign a written statement to that effect at the beginning of the course. Individuals who successfully complete the course, including passing the associated tests, will be issued a certificate by the department.
  - (2) The department trains instructors who themselves give certification courses, as described in this section. The eligibility requirement to attend such a course is the same as is described at paragraph (1) of this subsection. Individuals who successfully complete the course, including passing the associated tests, will be issued a certificate signed by the authorized instructor. It will have the same validity, and is subject to the same restrictions, as a certificate issued under paragraph (1) of this subsection.
- (b) Screening certificates issued under this section are subject to the following requirements.
  - (1) Individuals who receive a certificate are authorized to conduct vision and/or hearing screening (as applicable to the course taken, and as listed on the certificate) in accordance with this subchapter.

Certified screeners are required to comply with this subchapter, and failure to do so is grounds for the modification, suspension and/or revocation of the certification as provided in this section.

- (2) Individuals using a photoscreener for vision screening must have successfully completed instrument-specific training (including passing all associated tests) in accordance with manufacturer guidelines and must have a full understanding of the pass/fail referral criteria in accordance with AAPOS standards. Individuals conducting photoscreening must also have a current screening certificate under subsection (a)(1) or (2) of this section. Documentation of the photoscreening training must be submitted to the instructor upon attendance at a certification class and include the date and location the training was taken, and the name, affiliation and contact information of the instructor. The individual must successfully complete instrument-specific refresher training (including passing any associated tests) every five years. Such refresher training must be completed during the fifth year of certification from the date the preceding certificate was issued.
  - (3) Individuals using a telebinocular instrument for vision screening must be familiar with the instrument in accordance with manufacturer guidelines and must have a full understanding of the pass/fail referral criteria. Individuals conducting telebinocular screening must also have a current screening certificate under subsection (a)(1) or (2) of this section.
  - (4) Screening certification under this section allows the individual to screen children for vision and/or hearing problems (as applicable to the course taken, and as listed on the certificate) under this subchapter for a period of five years, with renewals processed as described in paragraph (5) of this subsection.
  - (5) Screening certification may be renewed by attending a department-approved refresher training course (either offered directly by the department or by an instructor authorized under this section). The refresher training course must be completed during the fifth year of certification from the date the preceding certificate was issued. Once a refresher training course is successfully completed, the five-year cycle begins again. If certification is not renewed within the required time period, the individual must attend the basic certification training course (i.e., a refresher course will not be sufficient).
  - (6) When the department receives information from any source that indicates a screener has not been following the requirements of this subchapter, the department may modify, suspend, or revoke the certification. The department will send a notice to the affected individual as part of any such action being taken.
  - (7) The affected individual has 20 days after receiving the notice, referenced in this paragraph, to request a hearing on the proposed action. It is a rebuttable presumption that a notice is received five days after the date of the notice. Unless the notice letter specifies an alternative method, a request for a hearing shall be made in writing, and mailed or hand-delivered to the program at the address specified in §37.26(d) of this title (relating to Recordkeeping and Reporting). If an individual who is offered the opportunity for a hearing does not request a hearing within the prescribed time for making such a request, the individual is deemed to have waived the hearing and the action may be taken.
  - (8) Appeals and administrative hearings will be conducted in accordance with the department's fair hearing rules, at §§1.51 - 1.55 of this title (relating to Fair Hearing Procedures).
- (c) Individuals who successfully complete a department instructor training course, including all associated testing, are authorized to conduct screening trainings and issue screening certificates to individuals who



successfully complete the screening training (including all associated testing), subject to the requirements of this section. Instructors may not charge any kind of fees for their activities under this section.

- (1) Individuals wishing to take the instructor course must first meet the following qualifications:
  - (A) have a current, valid department screening certification, and have experience performing screenings under that certificate;
  - (B) have experience conducting trainings to groups of adults; and
  - (C) be an audiologist, speech pathologist, optometrist, ophthalmologist or a registered nurse and must have the applicable Texas license, current and in good standing under Texas law.
- (2) Department authorization for instructors to conduct trainings is valid for five years from the date certification was issued. The individual must successfully complete a department-approved instructor training refresher course (including passing any associated tests) and submit documentation of successful completion to the department within 30 days of completion of the course. Such refresher training must be completed during the fifth year of certification from the date the preceding certificate was issued. Failure to comply with these requirements, by the deadline given, means that the individual must then attend the basic instructor training course (i.e., a refresher course will not be sufficient).
- (3) Once authorized by the department to conduct trainings, instructors must do so using training materials obtained from the department.
- (4) All proposed screening training sessions must be approved by the department at least 15 working days prior to the training session. The instructor must provide all information sought by the department, by the deadlines given.
- (5) Instructors in good standing under this section may teach screening refresher courses as described in subsection (b)(5) of this section. Such refresher courses are subject to the same requirements under this section as those pertaining to initial screening courses.
- (6) When a department-authorized instructor issues a certificate of vision and/or hearing screening, the instructor has 14 days to submit the attendance sheets, evaluations and the tear-off portion of the department's certification, and the photoscreening certificate, if applicable, to the department. These original documents should be submitted to the program at the address found at §37.26(d) of this title. The instructor should maintain a copy.
- (7) When the department receives information from any source that indicates a screening instructor has not been following the requirements of this subchapter, the department may modify, suspend, or revoke the certification. The department will send a notice to the affected individual as part of any such action being taken.
- (8) The affected individual has 20 days after receiving the notice, referenced in paragraph (7) of this subsection, to request a hearing on the proposed action. It is a rebuttable presumption that a notice is received five days after the date of the notice. Unless the notice letter specifies an alternative method, a request for a hearing shall be made in writing, and mailed or hand-delivered to the program at the address specified in §37.26(d) of this title. If an individual who is offered the opportunity for a hearing does not request a hearing within the prescribed time for making such a request, the individual is deemed to have waived the hearing and the action may be taken.

- (9) Appeals and administrative hearings will be conducted in accordance with the department's fair hearing rules at §§1.51 - 1.55 of this title.

**§37.28. Hearing Screening Equipment Standards and Requirements.**

- (a) Except as otherwise specifically provided, the sections in this subchapter apply to all persons and entities (e.g., calibration companies, facilities) who receive, possess, acquire, transfer, own, or use audiometers, audiometric testing devices, and audiometric calibration equipment, and to all audiometers used for audiometric screening and hearing threshold tests, all audiometric testing devices, and all audiometric calibration equipment used in the State of Texas.
- (b) Each individual and entity using any of the equipment referenced in subsection (a) of this section must be registered with the department, in the manner prescribed by the department (see information at <http://www.dshs.state.tx.us/vhs/audio.shtm>). Registration information must be updated in a timely manner to keep it current.
- (c) Equipment referenced in subsection (a) of this section shall meet the appropriate current ANSI standards, or the manufacturer's specifications if no ANSI standards apply, and all other applicable federal and state standard(s) and/or regulation(s) for such equipment.
- (d) Individuals must be trained by or undergo training approved by the department in the proper use of this equipment, as detailed in §37.27 of this title (relating to Standards and Requirements for Screening Certification and Instructor Training).
- (e) Individuals and entities who perform calibration services on the equipment referenced in subsection (a) of this section shall register with the department, and must update that registration in a timely manner to keep it current, in a manner prescribed by the department (see information at <http://www.dshs.state.tx.us/vhs/audio.shtm>).
- (f) Only calibration firms shall perform periodic electronic calibrations and exhaustive electronic calibrations. Calibration firms shall provide notification to the owner of the audiometer being calibrated that the audiometer has been calibrated. The notification may be in the form of a decal or sticker affixed to the audiometer, or in hard copy documentation that must be maintained by the owner and be made readily available to the department or its representative upon request.
- (g) Upon reasonable notice, each individual or entity using audiometric screening equipment shall make available to the department, in a timely manner, records maintained pursuant to this subchapter. Calibration forms and records for all equipment referenced in subsection (a) of this section, including monthly biological calibration data, shall be maintained for inspection by the department for three years.
- (h) Registration is not required for:
  - (1) equipment in storage, being shipped, or being offered for sale, if the audiometer, audiometric testing devices, and audiometric calibration equipment is not being used; and
  - (2) equipment limited to nonhuman use.

DEPARTMENT OF STATE HEALTH SERVICES

HEARING SCREENING PRACTICUM CHECKLIST

Participant: \_\_\_\_\_ Date: \_\_\_\_\_

Location: \_\_\_\_\_ Instructor: \_\_\_\_\_

- Basic     Recertification

**Did the participant prepare for screening by:**

**Yes No** (Check one)

- 1. Checking all plugs for proper placement?
- 2. Checking several frequencies at varying intensity levels with the right earphone?
- 3. Checking several frequencies at varying intensity levels with the left earphone?
- 4. Checking audiometer controls for proper settings before beginning screening procedures?
- 5. Correctly positioning the audiometer, chair, etc.?
- 6. Correctly performing a monthly biological calibration?

**Did the participant prepare the subject by:**

- 1. Giving the subject clear instructions?
- 2. Exposing the subject to a “pure tone” by laying the earphones on the table and producing an audible tone with the audiometer?
- 3. Having a clear, unobstructed view of the subject (able to see body movement, visual cues, etc.)?
- 4. Placing earphones on the subject with proper and equal tension for maximum seal (removing glasses and earrings)?

**Did the participant exhibit proper sweep-check techniques by:**

- 1. Using proper intensity for the sweep-check screen?
- 2. Using proper frequencies for the sweep-check screen?
- 3. Using proper frequencies in the correct order?
- 4. Screening the right ear first at all three frequencies, then screening the left ear?
- 5. Developing a nonrhythmic tone presentation?
- 6. Correctly performing an extended recheck?
- 7. Recording the results on the form correctly?

**INSTRUCTOR'S SUBJECTIVE EVALUATION**

In the space below, please write an additional commentary of the participant's overall performance. Highlight specific areas of weakness and strength. Be concise yet complete and give your recommendations concerning this individual's ability to perform accurate hearing screening. This portion of the practicum will be considered as part of the total score.

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**PASS**     **FAIL**

\_\_\_\_\_  
Instructor's Signature

\_\_\_\_\_  
Date

DEPARTMENT OF STATE HEALTH SERVICES  
VISION AND HEARING SCREENING PROGRAM

Revised 8/2013

DEPARTMENT OF STATE HEALTH SERVICES

HEARING SCREENING PRACTICUM CHECKLIST

Participant: \_\_\_\_\_ Date: \_\_\_\_\_

Location: \_\_\_\_\_ Instructor: \_\_\_\_\_

- Basic     Recertification

**Did the participant prepare for screening by:**

**Yes No** (Check one)

- 1. Checking all plugs for proper placement?
- 2. Checking several frequencies at varying intensity levels with the right earphone?
- 3. Checking several frequencies at varying intensity levels with the left earphone?
- 4. Checking audiometer controls for proper settings before beginning screening procedures?
- 5. Correctly positioning the audiometer, chair, etc.?
- 6. Correctly performing a monthly biological calibration?

**Did the participant prepare the subject by:**

- 1. Giving the subject clear instructions?
- 2. Exposing the subject to a “pure tone” by laying the earphones on the table and producing an audible tone with the audiometer?
- 3. Having a clear, unobstructed view of the subject (able to see body movement, visual cues, etc.)?
- 4. Placing earphones on the subject with proper and equal tension for maximum seal (removing glasses and earrings)?

**Did the participant exhibit proper sweep-check techniques by:**

- 1. Using proper intensity for the sweep-check screen?
- 2. Using proper frequencies for the sweep-check screen?
- 3. Using proper frequencies in the correct order?
- 4. Screening the right ear first at all three frequencies, then screening the left ear?
- 5. Developing a nonrhythmic tone presentation?
- 6. Correctly performing an extended recheck?
- 7. Recording the results on the form correctly?

**INSTRUCTOR'S SUBJECTIVE EVALUATION**

In the space below, please write an additional commentary of the participant's overall performance. Highlight specific areas of weakness and strength. Be concise yet complete and give your recommendations concerning this individual's ability to perform accurate hearing screening. This portion of the practicum will be considered as part of the total score.

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**PASS**     **FAIL**

\_\_\_\_\_  
Instructor's Signature

\_\_\_\_\_  
Date

DEPARTMENT OF STATE HEALTH SERVICES  
VISION AND HEARING SCREENING PROGRAM

Revised 8/2013

**DEPARTMENT OF STATE HEALTH SERVICES  
HEARING SCREENING**

**REVIEW OF HEARING SCREENING WORKSHOP**

1. Hearing screening should be initially administered to children at a young age, since early special education of children with hearing loss is vital.
2. Two physical attributes used to define a pure tone are frequency and intensity.
3. Hertz (Hz) is the unit of frequency.
4. The unit of measure for intensity is the decibel (dB).
5. Frequency and intensity are physical characteristics of sound. The ear perceives frequency as pitch and intensity as loudness.
6. The ear is divided into three parts: outer ear, middle ear, and inner ear.
7. Three types of hearing loss are conductive hearing loss, sensorineural hearing loss, and mixed hearing loss.
8. Symptoms of hearing loss include pain, discharge, ringing, straining to hear, dizziness, need for loud volume on TV or radio, and favoring of one ear.
9. Conductive hearing loss occurs when a problem in the external or middle ear prevents sound from being conducted properly to the inner ear.
10. A sensorineural hearing loss results from impaired function of the inner ear and/or neural pathways of the auditory system.
11. A mixed hearing loss has a significant conductive component and a significant sensorineural component.
12. Otitis media, or ear infection, is the single most frequent cause of hearing loss in children.
13. Conductive hearing loss is caused by wax in the external ear, otitis media, or a ruptured eardrum.
14. An audiometer is an electronic instrument used in screening for hearing loss and for testing auditory sensitivity.
15. A pure tone audiometer electronically generates pure tones, which are used for hearing screening.
16. Pure-tone screening audiometers should include the following frequencies: 250, 500, 1000, 2000, 4000, and 6000 Hz.
17. When transporting an audiometer in an automobile, keep the instrument in the passenger compartment and protect it from freezing temperatures. Even more important, on hot days, do not allow it to remain in a closed vehicle for long periods of time.
18. Earphones are the most delicate part of the audiometer and are most likely to get out of calibration from being dropped or from other misuse.
19. The standardized color code for earphones is red for the right ear and blue for the left ear.
20. Earphones must be calibrated to one specific audiometer and should always be considered an integral part of that particular instrument.
21. Texas regulations regarding audiometers require two types of calibration checks: monthly biological calibration and periodic electronic calibration (annual).

22. Each candidate for the Monthly Biological Calibration Check must be able to hear the tone at all six frequencies (250, 500, 1000, 2000, 4000, and 6000 Hz) in both ears at an intensity of 25 dB HL.
23. A quiet screening environment is of paramount importance.
24. Prior to each screening session, screeners should check for proper operation of all controls, switches, dials, lights, etc. that are necessary for conducting the screenings.
25. When screening, sit so that you can see the child's face, but avoid looking directly at the child when the tone is presented. Use peripheral vision to observe the child.
26. The importance of correct earphone placement cannot be overemphasized because improper placement may result in the child's failure of the sweep-check screen. Earphones should be placed by the screener, not the child.
27. The adjustable headband on the earphone should go over the top of the child's head.
28. An intensity of less than or equal to 25 dB will be used for the sweep-check screen. If noise in the screening environment does not permit screening at 25 dB, discontinue testing and relocate to a quieter area.
29. When performing a sweep-check, do not increase the intensity of the test tones above 25 dB.
30. Frequencies to be screened during the pure-tone sweep-check screen are 1000, 2000, and 4000 Hz.
31. The sweep-check screen should be performed on both ears, starting with 1000 Hz in the right ear.
32. A child is considered to have failed the sweep-check screen if he or she fails to respond to one frequency in either ear.
33. Each child who fails the initial sweep-check screen should be rescreened with another sweep-check screen no sooner than three and not more than four weeks later.
34. When a child fails a second sweep-check screen follow the extended recheck procedure immediately after the second screen.
35. Referrals should be made from the sweep-check or extended recheck results.



**DEPARTMENT OF STATE HEALTH SERVICES  
HEARING AND VISION SCREENING**

**PLEASE PRINT**

**Participant:** \_\_\_\_\_

Number Missed: \_\_\_\_\_

Test Score: \_\_\_\_\_

Pass    Fail

**Answer Sheet:**    Hearing    Vision

Workshop Location: \_\_\_\_\_

Mark an "X" through the correct answer.

1.	A	B	C	D
2.	A	B	C	D
3.	A	B	C	D
4.	A	B	C	D
5.	A	B	C	D
6.	A	B	C	D
7.	A	B	C	D
8.	A	B	C	D
9.	A	B	C	D
10.	A	B	C	D
11.	A	B	C	D
12.	A	B	C	D
13.	A	B	C	D
14.	A	B	C	D
15.	A	B	C	D
16.	A	B	C	D
17.	A	B	C	D
18.	A	B	C	D
19.	A	B	C	D
20.	A	B	C	D
21.	A	B	C	D
22.	A	B	C	D
23.	A	B	C	D
24.	A	B	C	D
25.	A	B	C	D



# HEARING SCREENING WORKSHOP EVALUATION

Location: \_\_\_\_\_ Date: \_\_\_\_\_

Trainer: \_\_\_\_\_ Assistant(s): \_\_\_\_\_

Basic     Recertification

**Instructions:** Circle only one answer for each question:

1. Did you learn anything from this workshop?
  - a. I acquired substantial new knowledge.
  - b. I acquired a moderate amount of new knowledge.
  - c. I acquired little or no new knowledge.
  - d. I acquired little or no knowledge.
  
2. To what extent will you apply what you learned in this workshop?
  - a. I will apply it.
  - b. I will apply it a little.
  - c. I might apply, but first I need to learn more.
  - d. I will not apply it.
  
3. How do you rate the presenter?
  - a. Excellent
  - b. Good
  - c. Moderate
  - d. Poor

**Comments:**

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4. I would like to make the following suggestion(s) for improving this training session:

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**Vision, Hearing and Spinal Screening  
Department of State Health Services  
Maternal and Child Health Section**

**Health Screening Group**

1100 West 49th Street

Austin, Texas 78756

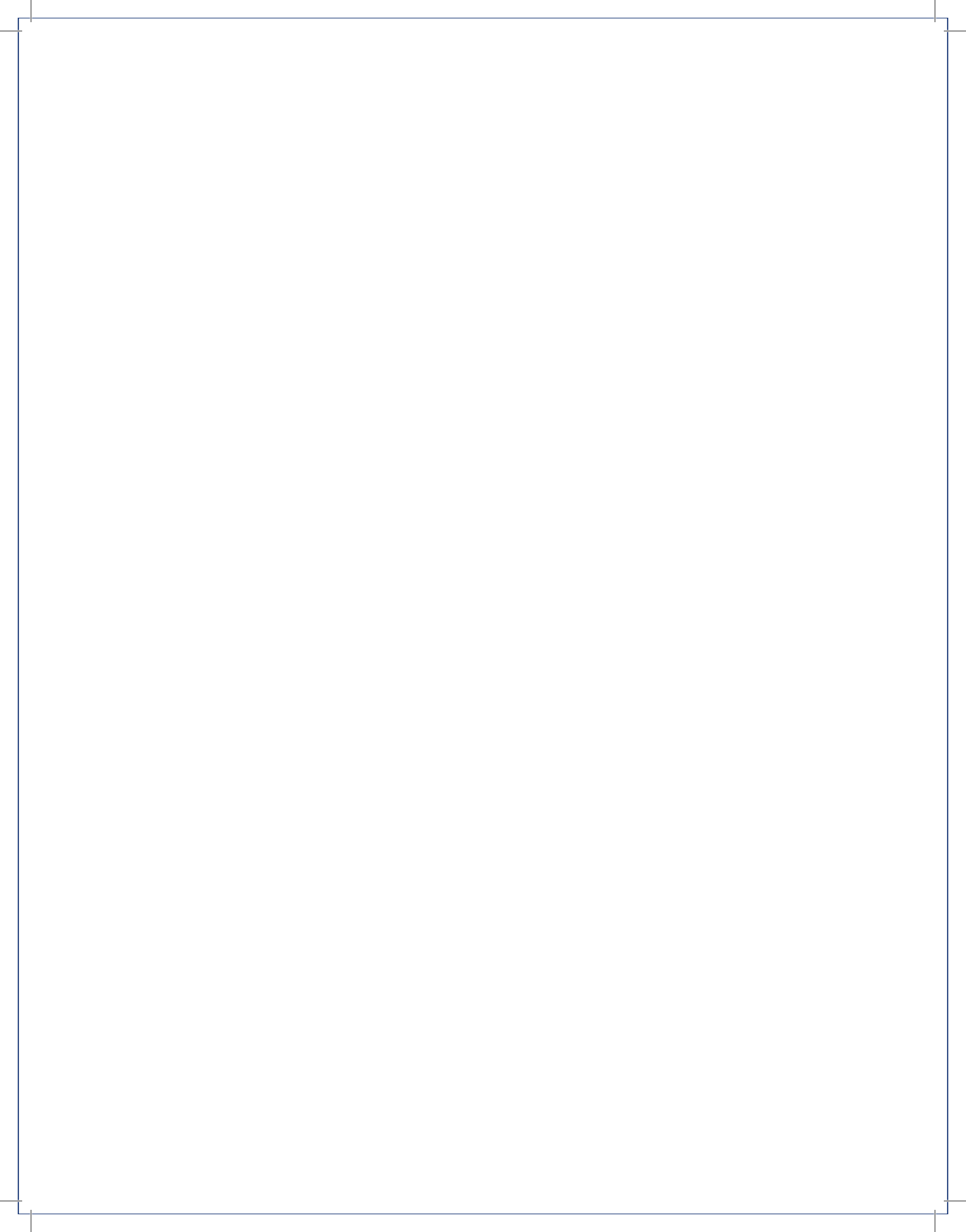
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# TEXAS DEPARTMENT OF STATE HEALTH SERVICES



Vision, Hearing and Spinal Screening, Department of State Health Services,  
Maternal and Child Health Section

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