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SERVICE GUIDELINE 5

Young Children Who Are Hard of Hearing or Deaf

Intervention guidance for
service providers and families.

July, 2012



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Barbara Bard, *Director, Speech and Hearing Dept., CT Children's Medical Ctr.*

Jane Bisantz, *Provider, Jane Bisantz & Associates*

Diane Brackett, *Director, New England Center for Hearing Rehabilitation*

Elizabeth Cole, *Director, CREC Soundbridge*

Ellen Gill, *Auditory Verbal Therapist, Soundbridge*

Kathy McKinley, *Parent*

Dianne Martin, *Supervisor, American School for the Deaf*

Toni Maxon, *Director, New England Center for Hearing Rehabilitation*

Eileen McMurrer, *Coordinator of Public Awareness*

John Purdy, *Consultant, State Department of Education*

Kathy Reddington, *Birth to Three Regional Manager, Eastern Region*

Deborah Richards, *Birth to Three Regional Manager, North Central Region, Chair*

Harry Schaeffer, *Parent and Provider, St. Vincent's Special Needs Center*

Luisa Soboleski, *Parent and Teacher of the Deaf, American School for the Deaf*

Karen Stockton, *Supervisor, American School for the Deaf*

Lynn Skene Johnson, *Birth to Three Regional Manager*

Diane Wixted, *ICC Member, CT Commission on the Deaf and Hearing Impaired*

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Requests for copies of this guideline or any other guideline may be made by:

Contacting

Connecticut Birth to Three System
460 Capitol Avenue
Hartford, CT 06106
(860) 418-6155

OR

Downloading from our website:

www.birth23.org

Connecticut's lead agency for the Birth to Three System is:



Department of Developmental Services
Terrence W. Macy, Ph.D., Commissioner
Linda Goodman, System Director

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PREFACE

This guideline is intended to assist families and service providers with the development of Individualized Family Service Plans (IFSPs) for children who are hard of hearing or deaf. This document includes general information about hearing loss and deafness, intervention philosophies and approaches, and available services and resources for families and children in Connecticut. It also describes the role of the Connecticut Birth to Three System under Part C of the Individuals with Disabilities Education Act (IDEA).

The Mission of the Connecticut Birth to Three System

The Mission of the Connecticut Birth to Three System (*See Appendix One*) is to strengthen the capacity of Connecticut's families to meet the developmental and health-related needs of their infants and toddlers who have delays or disabilities. The System will ensure that all families have equal access to a coordinated program of comprehensive services and supports that:

- foster collaborative partnerships;
- are family centered;
- occur in natural settings;
- recognize current best practices in early intervention; and
- are built upon mutual respect and choice.

The Connecticut Birth to Three System provides comprehensive services to children with a wide range of disabilities and delays and their families through a number of approved programs. Although all general programs serve children with all types of disabilities, three programs have specific expertise in working with children who are hard of hearing or deaf and their families. They are:

- American School for the Deaf (ASD),
- Capitol Region Education Council (CREC) Soundbridge, and
- New England Center for Hearing Rehabilitation (NECHEAR) Eastern CT only.

Families have the option of choosing the program they feel is most compatible with the outcomes they desire for their child and themselves and have the option of changing their Birth to Three program at any time during their enrollment in the Birth to Three System. Parents should contact each of the specialty programs in order to make informed choices about which alternative is best for their child and family and all families have the option of changing to a different Birth to Three program at any time during their enrollment in the Birth to Three System. See Appendix 7, page 49, for questions that parents may want to ask when calling any of these programs.

If the decision is to pursue services from a program that specializes in serving children who are deaf or hard-of-hearing, information from the following may help the family to select a program:

- their child's primary care physician;
- the audiologist who diagnosed the child's hearing impairment;
- this document;
- approved Connecticut Birth to Three programs; and
- other families who receive services, particularly parents of young children who are hard-of-hearing or deaf.

Contact information for each of the three Birth to Three programs specializing in serving children who are hard of hearing or deaf is listed below:

Program: **American School for the Deaf (ASD)**
Address: 139 North Main Street, West Hartford, CT 06107
Contact: Carol Peltier
Telephone : (860) 570-2334
Fax: (860) 570-2332
Website: www.ASD-1817.org (look under "Academics")
E-mail: Carol.Peltier@asd-1817.org
Towns Served: Statewide

Program: **CREC Soundbridge**
Address: 123 Progress Drive, Wethersfield, CT 06109
Contact: Dr. Elizabeth Cole
Telephone: (860) 529-4260 x4201
Fax: (860) 257-8500
Website: www.crec.org/Soundbridge (look under "Programs and Services")
E-mail: ecole@crec.org
Towns Served: Statewide

Program: **New England Center for Hearing Rehabilitation (NECHEAR)**
Address: 354 Hartford Turnpike, Hampton, CT 06247
Contact: Diane Brackett
Telephone : (860) 455-1404
Fax: (860) 455-1396
Website: www.nechear.com
E-mail: nechear@snet.net
Towns Served: All towns in Tolland, Windham, and New London Counties

REFERRAL AND ELIGIBILITY

Any child may be referred to the Connecticut Birth to Three System if there is concern that the child's development is delayed. If a family's primary concern is about their child's hearing, then before the family refers the child to Birth to Three, they should get their child's hearing tested as quickly as possible at a center that specializes in diagnosing hearing loss in young children. To find such a center, parents can phone Child Development Infoline (1-800-505-7000) or any of the programs listed on page 4, or click on "A Parent's Guide to Diagnostic Hearing Testing of Infants" on the Dept of Public Health website (http://www.ct.gov/dph/cwp/view.asp?a=3138&q=387718&dphNav_GID=1971) or their primary care physician. The physician may also be helpful in obtaining an early appointment for an audiological evaluation, although most child-friendly audiology clinics will try to see any child quickly when the parents say they are worried about their child's ability to hear and can describe the reasons. Most health insurance plans including Medicaid will cover the costs of hearing testing, but parents with commercial health insurance need to be aware that there may be co-pays or deductibles associated with the testing. It's best to ask the testing center and the health insurance company in advance, especially if the appointment is early in the calendar year and deductibles still apply.

There are different kinds of hearing loss that a child may have: a conductive hearing loss, a sensorineural hearing loss or a mixed hearing loss. Your child may also be referred because of a diagnosis of auditory dys-synchrony or auditory neuropathy. All types of hearing loss result in a reduction of loudness of some sounds or elimination of the ability to hear different pitches or to hear speech clearly.

Referrals to the Birth to Three System come through the Child Development Infoline (toll-free number 1-800-505-7000 or anyone may refer on-line at www.birth23.org/referrals/referrals.htm).

Normal hearing in young children is defined as 15 decibel (dB) or better (less). A child's hearing loss may be categorized in one of the following ranges: mild (26-40 dB), moderate (41-55 dB), moderately severe (56-70 dB), severe (71-90 dB), or profound (90 dB or more). The hearing loss may be in one ear (unilateral loss) or in both ears (bilateral loss). The loss may be temporary or permanent.

Children with a permanent hearing loss of 25dB or greater in either ear OR persistent middle ear effusion that is documented for six months or more with a hearing loss of 30dB or greater, or a neural hearing loss (includes auditory neuropathy) are automatically eligible for Connecticut Birth to Three services.

INDIVIDUALIZED FAMILY SERVICE PLAN (IFSP)

Once a child is determined to be eligible for the Birth to Three System, the family will work with a service coordinator whose job is to bring together all the pieces of information and all of the people who will be supporting the family and child in a way that makes sense for the family. A written plan called an Individualized Family Service Plan (IFSP) will be developed that defines the family's goals and objectives for themselves and their child and the specific Birth to Three and community services they will use to work toward those goals. If your child is deaf or hard of hearing, the IFSP will specify the assistive technology such as hearing aids or FM receivers that will be a part of your child's program. Strategies on the IFSP will indicate the plan for the child to use whatever device has been recommended to learn and how the listening environment can be controlled to help in that process. Ultimately, the IFSP should detail the steps required to help your child achieve a functional communication system that will help him or her to effectively interact with children and adults in a variety of settings. The IFSP strategies should clearly show how your child's need to learn language will be integrated into your daily routines and natural learning opportunities and who will be responsible at different times of the day. Lastly, the IFSP will describe the steps that will lead toward a successful transition from Birth to Three at age three to other settings.

Families may invite anyone they would like to attend the IFSP meeting, including members of their extended family, day care providers or friends. The service coordinator and other members of the intervention team will also participate. For children with an identified hearing loss, it is essential that the IFSP be developed in collaboration with the child's audiologist and the primary care physician. The service coordinator will work with the family to ensure that updated information regarding the child's audiological management is included in the IFSP. Since audiological management generally requires that the child go to a location that includes a testing booth, the service of "transportation" to that audiological management must be addressed on the IFSP. If parents are providing the transportation, then a mileage reimbursement must be offered and noted. If parents do not wish to be reimbursed for mileage, then that also should be noted on the IFSP. If the program is providing the transportation in the way of taxi vouchers or sending vans to pick up the parent and child, then that should be recorded on the IFSP. The IFSP is reviewed at least every six months, or more frequently if necessary, to monitor progress and make any necessary changes. The IFSP will be evaluated at least annually based on updated assessments of the child's development in all areas (cognition, physical development, communication, social or emotional or adaptive skills). In the Connecticut Birth to Three System, parents may choose to change the Birth to Three program they are working with at anytime. The service coordinator can assist the family with transferring to another program.

PRINCIPLES OF INTERVENTION FOR YOUNG CHILDREN WHO ARE HARD OF HEARING OR DEAF

The following information is organized according to a list of basic principles of intervention for young children who are hard of hearing or deaf.

Principle ① <i>Early Identification and diagnosis is essential.</i>

Since July 1, 2000, all babies born in Connecticut hospitals have had their hearing screened before going home from the hospital. This test is usually performed while a baby is sleeping and determines whether each ear is functioning properly. Infants who are referred from the newborn hearing screening need to have their hearing tested by a pediatric audiologist. The pediatric audiologist is able to do a more complete test of the child's hearing to determine whether or not there is a hearing loss. Most parents do not realize that it is possible to complete a hearing test or audiological evaluation on a very young baby. Although it requires specialized equipment and training, a pediatric audiologist can perform an audiological evaluation on even the youngest infant or toddler.

Behavioral Characteristics of Children who are Hard of Hearing or Deaf

Although the hearing screening process is reliable, there are children who will not be identified through the screening or children who will develop a hearing loss after initial screening or even after a full audiological examination. Therefore, families should continue to watch their babies for behaviors that may indicate a hearing loss. The following is a list of behaviors that sometimes indicate there is a problem with a child's hearing. If the answer is "no" to any of the following questions, the family should speak with their primary care physician about having their child's hearing tested by a pediatric audiologist.

1. By 3 months, does the child startle or cry at loud noises in the environment?
2. By 3 months, does the child respond to sounds or your voice?
3. By 6 months, does the child like toys that make sound?
4. By 6 months, does the child turn to locate where a sound is coming from?
5. By 9 months, does the child turn and look when you call his or her name?
6. By 9 months, does the child respond to "no" or changes in the tone of your voice?
7. By 12 months, does the child babble and make sounds?
8. By 12 months, does the child understand the names of some simple objects such as "cup" or "shoe"?
9. By 15 months, does the child respond to simple directions?
10. By 15 months, does the child say some simple words?

Principle ② ***Ongoing audiological assessment and management must be conducted by staff trained to work with infants and young children.***

Who can Test Hearing?

It is important that families find the appropriate professional to evaluate their child's hearing. Although a number of professionals are capable of testing hearing, not all of them will be able to test a young child, make a diagnosis, and recommend ongoing audiological services. The evaluation of a young child's hearing is often a process that requires more than one visit to the audiologist.

The professionals described below are involved with hearing management. The family's Birth to Three program can also share a list of professionals with whom they collaborate on a regular basis. Families may choose one of these professionals or speak directly with their family physician for a recommendation. In addition, the family's health insurance policy may identify specific professionals who are covered (i.e. "in-network") under a personal health care plan. The service coordinator can assist families in making the choice that is best for them.

Pediatric Audiologist

It is important that families find a pediatric audiologist to evaluate their child's hearing. Audiologists are uniquely licensed to identify, diagnose, and manage all types and degrees of hearing loss. They assess hearing, prescribe hearing aids and other audiological technology, make recommendations for cochlear implant evaluations, and counsel parents about their child's hearing loss. Pediatric audiologists specialize in working with infants, toddlers, and preschoolers. Although all audiologists know about hearing loss, only pediatric audiologists are trained to diagnose hearing loss and provide amplification for very young children.

What can be expected from a Pediatric Audiologist?

A pediatric audiologist has testing equipment that is specifically designed to be used with infants and toddlers. They use procedures for testing hearing that are appropriate for the child's age and development. Parents in the Birth to Three System should use the following criteria when choosing a pediatric audiologist to work with their young child. The audiologist:

1. specializes in working with infants and young children;
2. has worked with a large number of infants and young children with hearing loss;
3. can evaluate a child's hearing within a short time after being contacted for an appointment;
4. will review and explain the results of the audiogram with the family at the time of the evaluation;
5. will explain the benefits of hearing technology and the purpose of any audiological recommendations;

6. can provide hearing technology (hearing aids, FM systems, cochlear implant accessories) for the child in a timely manner;
7. makes ear mold impressions;
8. dispenses hearing aids;
9. has loaner hearing aids available;
10. provides hearing aids on a trial basis;
11. has the resources to repair hearing aids in a timely manner;
12. can evaluate the infant or toddler for a cochlear implant OR refer to a cochlear implant center (Note: neither cochlear implants nor mapping of cochlear implants are early intervention services under Part C of the IDEA)
13. has worked with the Connecticut Birth to Three System and is familiar with the procedures of the Connecticut Birth to Three System including IFSP development and procedures for acquiring hearing aids or assistive technology;
14. will provide a comprehensive written report, with a copy of the audiogram, in a timely manner.

Pediatricians

Pediatricians are trained to manage childhood health and diagnose illness, as well as to evaluate general development. With respect to hearing loss, they are qualified to diagnose and treat the medical aspects of ear problems. Pediatricians may conduct informal assessments of a child's hearing and although some pediatricians have testing equipment in their office, they do not carry out complete audiological evaluations. Your child's pediatrician may be helpful in referring you to a pediatric audiologist for an audiological evaluation. You should be sure to keep your child's pediatrician current with any audiological evaluations of your child.

Otolaryngologists/Ear, Nose, and Throat (ENT) Doctors

If your child needs hearing aids, you will need to see an ENT so that he or she can provide medical clearance (typically in the form of a prescription) for the use of amplification (hearing aids). ENTs specialize in the treatment of ear, nose, and throat disorders and are trained to diagnose and manage diseases of the head and neck. By federal law, ENT specialists must examine the child to rule out any medical complications before purchase of a hearing aid.

Hearing Aid Dealers

These persons are licensed in Connecticut to sell hearing aids. They are not qualified to assess and manage children with hearing loss, particularly infants and toddlers. They may not provide children with hearing aids without a recommendation for the specific hearing aid(s) from a licensed audiologist. They can make ear molds, which are needed to use hearing aids, repair hearing aids, and provide accessories for hearing aids.

What are some of the Hearing Tests typically used by a Pediatric Audiologist?

There are many different types of hearing tests. The tests used on a child will depend on his or her age, ability to respond, and the reason the test is being performed. Often, different kinds of tests are used together to determine the type and extent of a hearing loss. The following is a brief description of tests that are commonly used with young children. *(See Appendix Two for a chart comparing the different types of hearing tests. If you are unfamiliar with these tests, it may be helpful to refer to the chart as you read the test descriptions.)*

Auditory Brainstem Response Measures (ABR)

This may also be called BEAR (Brainstem Evoked Auditory Response). The test requires *no* voluntary response from the child, although the child needs to hold very still while the test is being done. Earphones or earbuds are placed on or in the child's ears, through which sounds are presented. Electrodes on the forehead and surface of the scalp measure the electrical response of the child's auditory system and record it on a computer. This method should be used for all *infants under four months of age*. The test usually takes place while the child is sleeping, or if necessary, while the child is sedated. Sedation is rarely used with young babies, since it is usually possible to time the test so that the baby is sleeping. If a child requires sedation, then the test must be conducted in a hospital.

Although Automated ABR may be used in the hospital as part of newborn hearing screening, it is not used for a diagnostic test. The diagnostic ABR test by an audiologist does not use the same equipment and takes longer.

Auditory Steady State Response (ASSR)

This test requires no voluntary response from the child. Responses to sounds presented through insert earphones are measured through electrodes on the scalp. The audiologist reads a waveform that indicates the response of the auditory nerve and estimates the child's hearing levels across frequencies. The benefit of ASSR is that the results may provide more specific threshold information for infants who have profound hearing losses. This helps the audiologist in making decisions about hearing aid fittings or determining cochlear implant candidacy. At the present time ASSR is not available in all audiological clinics. For infants under four months no sedation is necessary.

Otoacoustic Emissions (OAE)

This test may also be called Distortion Product Otoacoustic Emissions (DPOAE) or Transient Otoacoustic Emissions (TPOAE). The test requires no voluntary response from the child. A small probe is placed in the child's ear and sound is presented. When the ear receives the sound it sends an "echo" back out through

the ear. A tiny microphone in the probe collects the ear's response to the sound and a computer measures this response. This test will be conducted as part of a battery of tests for children less than three years of age. No sedation is necessary, however if a child is being sedated for ABR, the audiologist may choose to do this test at the same time. OAE procedures used in newborn screening are not as comprehensive as those used for diagnostic purposes.

Tympanometry/Impedance Testing

This test requires no voluntary response from the child; it is conducted by placing a small probe in the child's ear and introducing a low-pitched tone. For young infants (six months and younger) a specialized higher pitched tone must be used. There is a small pump in the probe that changes the air pressure in the ear canal. This does not cause any discomfort to the child. The change in pressure causes the eardrum to move and a computer measures how the eardrum responds to that pressure change. The audiologist can determine if there is any problem such as fluid in the middle ear space. The purpose of this test is to determine if there is anything wrong in the middle ear that needs to be evaluated by a pediatrician or an otolaryngologist, but it does not measure whether the child has a hearing loss or how much of a loss exists.

Impedance testing includes tympanometry and acoustic reflex testing. The acoustic reflex is an involuntary muscle contraction that occurs in the middle ear in response to a very short, loud sound. The presence or absence of acoustic reflexes can be used diagnostically for confirming hearing loss or middle ear problems or both.

Behavioral Observation Audiometry (BOA)

This test is conducted in a sound proof booth and requires a response from the child. Sounds are presented either through earphones or through loudspeakers. The pediatric audiologist uses an audiometer to present different sounds at different frequencies (itches). The child's response to the sound such as eye widening or head turning is noted. The loudness of the sound is varied to determine the softest level to which the child responds. If the child is able to wear earphones, the response of the individual ears can be measured. When the loudspeakers are used, the audiogram (a graph of the test results) will describe the better of the two ears (if an ear difference exists). BOA is appropriate for infants *younger than six months of age*.

BOA is not used by itself to determine hearing levels. However, when BOA is used in conjunction with ABR, OAE and tympanometry measures, the pediatric audiologist can describe the hearing loss and make recommendations for hearing aids or other treatment methods.

Visual Reinforcement Audiometry (VRA)

This test is conducted in a sound proof booth and requires a response from the child. Sounds are presented either through earphones or through loudspeakers. In addition the sound may also be presented through a small vibrator placed behind the ear. In VRA, the infant or toddler learns to turn toward an interesting toy when he or she hears a sound. This is done by pairing the child's response to the sound with the activation of a toy that lights up or moves. The pediatric audiologist uses an audiometer to present different frequencies (itches) and controls the toy that reinforces the child for correct responses. The intensity (loudness) is varied to determine the softest level at which the child reliably responds to each pitch. The pediatric audiologist records the results on an audiogram.

Tympanometric measures should be done in addition to this test to help in diagnosing the type of hearing loss. With this information, the audiologist will be able to recommend hearing aids or other forms of treatment. This test is appropriate when infants can turn in response to sound, which is typically by *six months of age*.

Conditioned Play Audiometry (CPA)

This test is conducted in a sound proof booth using earphones (air conduction) or by placing a vibrator behind the ear (bone conduction). It may also be done through loudspeakers if a child will not accept headphones. For this test, the child learns to respond to a sound by performing a task such as throwing a ball in a bucket. The pediatric audiologist uses an audiometer to present sounds at different pitches or frequencies and praises the child for the correct response (ball in bucket). The loudness or intensity of the sound is varied to determine the softest level at which the child repeatedly responds. The pediatric audiologist will record the results on an audiogram. Tympanometric measures should be done in addition to this test to help in diagnosing the type of hearing loss. With this information, the audiologist will be able to recommend hearing aids and other forms of treatment.

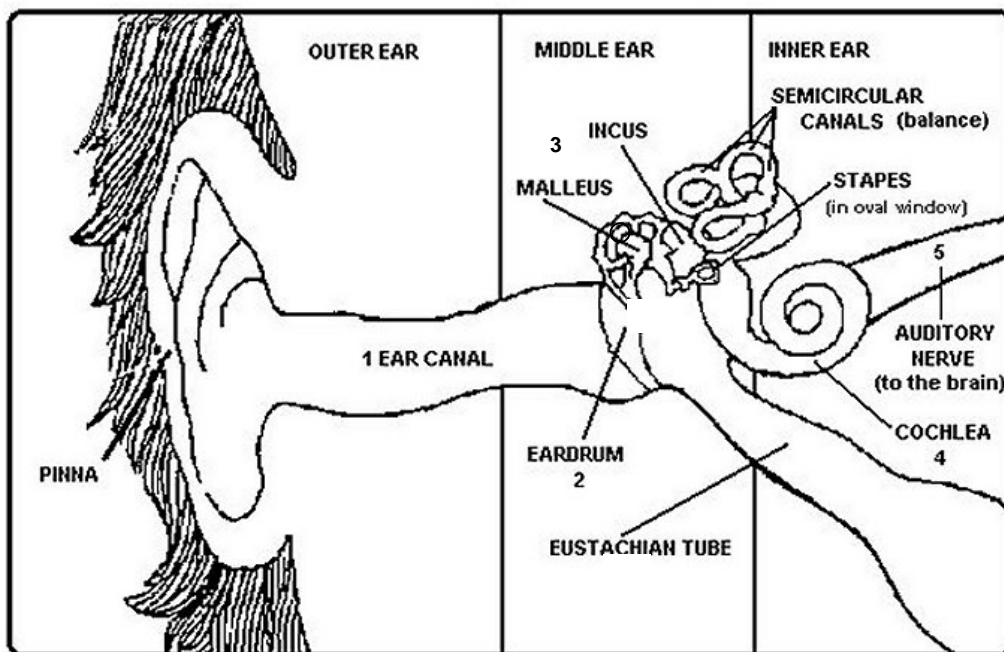
This test is appropriate for children who can be trained to perform the play activity, typically by *30 months of age*.

Principle ③ *The intervention team should assist the family in learning about the nature of their child's hearing loss.*

Learning about Hearing Loss

The audiologist records the results of the audiological tests on a graph called an audiogram. (See Appendix Three for a description of an audiogram and information on interpreting it.) In order to understand the information on the audiogram, a family must have a basic understanding of how the ear works as well as the different types of hearing loss.

DIAGRAM OF THE HUMAN EAR



There are different parts of the ear that contribute to the hearing process. They are the outer ear, middle ear and inner ear. Sound waves enter the outer ear through the external ear canal (1) also called the external auditory meatus and are directed to the eardrum (2) also called the tympanic membrane. The movement of the sound waves causes the eardrum to vibrate. This in turn causes three tiny bones in the middle ear called the ossicles (malleus, incus, and stapes) (3) to move back and forth in the middle ear so that sound is directed into the inner ear, known as the cochlea, (4). The cochlea is lined with a membrane (basilar membrane) that has thousands of hair cells on it. The hair cells have nerve fibers from the Auditory Nerve (5) in them and change the mechanical energy of the sound wave into electrical energy. This electrical energy stimulates the nerve and sends a signal representing the sound wave to the brain.

The normally functioning ear responds to a wide range of frequencies (pitches) and intensities (loudness). Hearing loss generally reduces the intensity of a sound and can affect different frequency ranges, depending on the type and degree of hearing loss.

Conductive Hearing Loss

Conductive hearing loss occurs when there is a problem in the outer or middle ear. The most common cause of conductive hearing loss in young children is a middle ear condition called otitis media. Otitis media is defined as inflammation of the middle ear, usually with fluid, which may or may not be infected. The condition is very common in young children and is the reason for many visits to the pediatrician. It is important that ear infections be treated by a physician as quickly as possible to reduce potential hearing loss. Many children can experience episodes of middle ear problems with no permanent hearing loss. Middle ear fluid that lasts for several months can result in significant problems even with medical treatment.

When chronic episodes of middle ear fluid occur before a baby is 18 months old, there is the possibility that the child will have trouble with speech or language development. The Connecticut Birth to Three System procedure on “Evaluation” addresses eligibility for children with recurrent otitis media.

Conductive hearing loss in young children may also be due to a physical abnormality of the outer or middle ear. Although these conditions may be treated with surgery, that may not take place until adolescence. These children will have a hearing loss until the time of surgery. Children with structural conductive hearing loss may benefit from hearing aids and should have auditory and speech and language management as long as the hearing loss exists.

Sensorineural Hearing Loss

Sensorineural hearing loss occurs when the inner ear (cochlea) or auditory nerve has been damaged. There are many early causes of sensorineural hearing loss including genetic conditions, loss of oxygen during delivery, extremely low birth weight, and maternal viruses or drug use (particularly in the first trimester). A child may be born with normal hearing and acquire a loss due to a viral disease such as meningitis or exposure to certain prescribed drugs. There are also some inherited conditions that are associated with progressive sensorineural hearing loss (loss of more hearing over time).

Children born with sensorineural hearing loss need to receive appropriate and ongoing audiological management as soon as the hearing loss is identified. Through universal newborn hearing screening many of these babies are identified within the first weeks of life. Audiological management may include ongoing audiological testing and follow up, referral for related medical follow-up, fitting and trial of hearing aids, monitoring of the effectiveness of amplification,

and referral for genetic testing, and vision. Children who acquire hearing loss after birth should receive the same type of audiological management as the child who is identified at birth as soon as the loss is identified. Management should be conducted regardless of the degree of loss (mild through profound) or if the loss is present in only one ear.

Mixed Hearing Loss

When a child has both a conductive and a sensorineural loss, it is called a mixed hearing loss. Children with permanent sensorineural hearing loss are as susceptible to middle ear infections as children with normal hearing. When they have middle ear fluid it may add a conductive component to their existing sensorineural hearing loss making it even more difficult for them to hear. A pediatric audiologist will regularly test for all types of hearing loss as part of the child's ongoing audiological management. Specifically they will carry out air and bone conduction testing and immittance measures as described above.

Auditory Neuropathy Spectrum Disorder (ANSD)

Auditory Neuropathy Spectrum Disorder (ANSD) is a type of hearing loss that can be very confusing. ANSD occurs when the inner ear (cochlea) is working normally, but when the sound is transmitted from the inner ear to the brain the sound is not processed normally. A child with ANSD may pass certain types of hearing tests such as otoacoustic emissions (OAE) tests, but fail others such as auditory brainstem evoked response (ABER). The child may seem to hear normally or may have a hearing loss ranging from mild to profound. Often a child's hearing will fluctuate and seem to be worse on some days than others.

The cause of ANSD is not clear and there is probably more than one cause. Hearing professionals have different opinions as to the type of treatment and communication options that should be used. However, it is critical that children with auditory neuropathy/dys-synchrony receive ongoing audiological management as soon as their hearing loss is identified as they are at high risk for speech/language/communication problems. Audiological management should include ongoing audiological testing and follow-up, the provision of information about ANSD, and referral for related medical follow-up. Audiological management may also include a trial use of hearing aids, assistive listening devices, and/or consideration for a cochlear implant. The IDEA considers a cochlear implant to be a medical device, rather than an early intervention service.

Unilateral Hearing Impairment

Unilateral hearing impairment is a hearing loss in one ear; the other ear has normal hearing sensitivity. In children, a unilateral hearing impairment can have a negative impact on the development of spoken communication (language). Children will have difficulty hearing in the presence of background noise and locating where a sound is coming from. A hearing aid may be a treatment option

for the affected ear. An FM system may be useful in difficult listening environments, especially when back ground noise makes it difficult to hear someone speaking. Since children with unilateral hearing loss are at risk for developing communication delays, it is important that parents learn strategies to foster development of spoken communication. A significant number of children with unilateral hearing loss later develop bilateral hearing loss and it is essential that these children receive ongoing audiological management to monitor the status of their hearing.

Principle ④ *Intervention requires a team approach. The family is the most important member of this team. The Connecticut Birth to Three System offers support, assistance, and advice to families on how to best meet their child's unique needs. This should include access to a wide variety of information that is shared in an unbiased manner.*

Families have identified many ways in which the Birth to Three System can assist them with meeting the developmental needs of their child who is hard of hearing or deaf. Children with hearing loss are more likely than other children to develop social, emotional, or communication difficulties. Early intervention and family supports can greatly reduce the potential effects of these difficulties. Family supports may include opportunities for training and resources, connections with other parents, as well as information on a variety of topics.

Family training can assist families to learn more about:

- the nature of their child's hearing loss; and
- how to help their child use his or her hearing;
- how to help their child communicate;
- different intervention options;
- how to use their child's hearing technology (hearing aids, FM systems, cochlear implants);
- general development of infants and toddlers including social emotional development;
- how to prepare for a transition to new services once their child turns three years old.

Parent support services may be delivered in a variety of ways such as:

- parent education sessions;
- parent child interaction coaching;
- demonstration, modeling, or coaching of techniques;
- discussion of general developmental issues;

- opportunities to meet with other families who have children who are hard of hearing or deaf;
- opportunities to meet older children or adults who are hard of hearing or deaf;
- opportunities for sibling support; or
- counseling support for families to discuss family issues related to the child's hearing loss.

In addition, there are many state and national resources that parents may access for information. The Birth to Three System will assist families to network with a variety of these organizations and resources. (*See Appendix Four for a listing of state and national resources including websites.*)

Members of the Intervention Team for Children who are Hard of Hearing or Deaf

In addition to the family, there are many professionals that work together to make up the intervention team. One person may fill multiple roles on the team. The Connecticut Birth to Three System believes it is best practice to use a transdisciplinary approach for all early intervention and support services. Transdisciplinary means the parent and persons from two or more disciplines teach, learn and work together across traditional disciplinary or professional boundaries. The team may designate one team member as the primary interventionist. Team members may provide direct or consultative services or both. The IFSP for a child with a hearing loss might include any of the following people:

Audiologists

An audiologist is a specialist who determines the presence and type of hearing impairment. An audiologist conducts hearing tests and makes recommendations for hearing aids. An audiologist must have a masters degree and be licensed by the Connecticut Department of Public Health.

Teacher of the Deaf /Teacher of the Hearing-Impaired

A teacher of the deaf or Teacher of the Hearing-Impaired is knowledgeable about hearing loss and how to help a child with hearing loss learn to communicate. The choices of communication mode and teaching or learning mode for children with hearing loss are many and confusing. (See page 21 under "Decisions.") Teachers usually specialize in one approach or the other and it is important to understand what communication mode and teaching or learning mode is the teacher's specialty and to be sure that it fits with what your family wants for your child. A teacher of the deaf/hard-of-hearing must have a bachelor's or master's degree and must be certified by the State Department of Education for this specialty.

Auditory-Verbal Therapist or Educator (Listening and Spoken Language Specialist)

These Listening and Spoken Language Specialists help children who are deaf or hard of hearing learn to listen and talk through the use of appropriate hearing technology and use of specific Auditory-Verbal techniques throughout their daily routines. Alexander Graham Bell Association for the Deaf and Hard of Hearing certifies two types of Listening and Spoken Language Specialists. The notations after a professional's name would be LSLS cert AVT, for specialists who work individually with families and their children or LSLS cert AVEd, for specialists who work with children in groups or individually in schools.

Speech-Language Pathologist

A speech-language pathologist works to improve the child's speech and language skills as well as to improve oral motor abilities, such as feeding. Speech-Language Pathologists' training prepares them to work with children and adults with a broad variety of speech and language problems. They may choose to specialize in working with children who have hearing loss. Speech-language pathologists are required to have a master's degree in speech pathology and be licensed by the Connecticut Department of Public Health. Those working for school districts must, in addition, be certified by the State Department of Education.

Special Educators

A special educator is trained to help children with a broad variety of disabilities and developmental delays. They have particular knowledge and skills in breaking down tasks into small steps to make it easier for a child to learn, in behavior management, and in providing a rich learning environment for children. Their training does not typically include a great deal about children with hearing loss. A bachelor's degree or master's degree is required along with appropriate State Department of Education certification in Early Childhood Special Education.

Primary Care Physician

The primary care physician plays a key role for the child with hearing impairment or deafness. For some children, ongoing medical intervention and referral will be a necessary aspect of their early intervention program. The primary care physician is required by law in Connecticut to approve and sign the Individualized Family Service Plan (IFSP) for every child receiving Birth to Three services.

Service Coordinator

Each eligible child and his family will be provided with one person from their Connecticut Birth to Three program that is responsible for coordinating all services across agency lines and serving as a single point of contact in helping parents to obtain the services and assistance they need. In Connecticut, the service coordinator will usually have another role on your child's team such as being the Teacher of the Deaf, Auditory Verbal Therapist, or Audiologist.

Other team members

In addition to services specific to hearing, the child's Birth to Three program is able to provide a wide range of services necessary to meet the needs of the child and his or her family. These may include, but are not limited to, occupational therapy, physical therapy, psychology services, and assistive technology services.

Principle 5 ***Parents and children are partners in communication and must develop a communication system in order for a language system to develop.***

Communication is the transmission of information from one person to another and it occurs in a number of ways including gestures, facial expressions, and vocalizations. Some children will develop language through listening and speech, while others will develop language through gestures or sign language. Some children will use a combination of sounds, speech, and signs. A young child's program must provide options for the use of listening and speech and, if the family chooses, sign language. It is the responsibility of the program to help the family determine the most appropriate mode of communication for their child. The program must avoid biasing a family toward one communicative method or another, but rather assist them in learning about the range of options for communication and choosing what is best for their child and family.

Choosing one mode over the other is a personal decision made by the family and is often affected by the nature of the child's hearing loss and the family's mode of communication. The following (presented in alphabetical order) are short summaries of the different communication options.

Communication Approaches and Services

Auditory-Oral/ Auditory-Verbal

Both "Auditory-Oral" and "Auditory-Verbal" are names for instructional approaches that help children who are deaf or hard of hearing learn spoken language through listening. The term "Auditory-Verbal" has become the more widely used term. Auditory-Verbal Education refers to the use of Auditory-Verbal teaching techniques in classroom settings. The term Auditory-Verbal Therapy refers to parent/child education that takes place in individual sessions where parent education is the primary focus and parents retain the role of primary teachers of listening and spoken language teachers for their children.

Cued Speech

This visual communication system relies on a system of eight hand shapes (cues) that represent different sounds of speech. These cues are used while talking, to make the spoken language clear through vision. This system allows the child to distinguish sounds that look the same on the lips. Use of residual hearing is also encouraged.

Total Communication

The philosophy of total communication is to use every method available to communicate with the child. Total Communication involves using spoken language, listening, sign language, ASL (American Sign Language), cued speech, lip-reading, finger spelling, writing, gestures and pictures along with the use of amplification.

Bilingual – Bicultural

This communication approach supports the use of American Sign Language (ASL) as a first language and English as the second language.

Decisions

It is difficult for families to learn about the different communication approaches and determine which one is best for them. The role of the service coordinator is to assist families in this process and to help them learn about the different options available. It is highly recommended that parents contact each of the specialty programs in order to make informed choices about which alternative is best for their child and family. Page four of this book gives the contact information for the three specialty programs in the Connecticut Birth to Three System and Appendix 7 offers some questions to help guide the discussion.

Initially, a family may choose one program based on a particular philosophy or approach and then change their minds. Families may find that using a combination of approaches works well for them. The communication approach a family chooses will determine which professionals are included on the intervention team. All of the communication approaches used in early intervention require a high level of involvement and input by the family.

For more information on these communication approaches (*see Appendix Four for websites and organizations that may be useful*).

Principle 6 *Language development begins as soon as a child is born and develops through interactions with the family during daily routines.*

It is helpful for families to understand the various aspects of language development in order to help their child. A child needs to understand language as well as use it. The ability to use language is referred to as expressive language skills and the ability to understand what is said or communicated is referred to as receptive language skills. Another way to look at it is that receptive language refers to how much a child understands and expressive language refers to how well a child is able to show what he/she thinks or feels. This is true in any method or mode of communication. In the initial stages of language development the child often understands more than they can produce.

Children without hearing loss receive considerable exposure and practice in language by overhearing others speak. For children who are hard of hearing or deaf, these opportunities may be limited. However, they need as many opportunities as possible to practice language. This is one of the reasons early intervention builds on a foundation of family participation rather than isolated practice in therapy. It is through the daily practice of language in all activities that children become good communicators.

Opportunities for hearing and learning language happen throughout the day during play and regularly occurring routines. The Birth to Three program will talk to the family about the child and family's typical day to identify the times and activities that are difficult for the child and those that provide a natural opportunity for the child to learn.

The unique combination of the child, family, and characteristics of the hearing loss will affect language development regardless of the communication method a family chooses.

Principle 7 *Parents need to understand and manage the hearing aids and/or auditory equipment for their child. A program must help the family learn how to maintain hearing aids and/or amplification equipment.*

The most important intervention tool for a child with hearing loss who is learning spoken language is the hearing technology which is typically begins with hearing aids. Based on the available audiological information, your child's pediatric audiologist will select hearing aids that will provide sound appropriately to your child. Your child will also need custom-fit earmolds which the pediatric audiologist will make on one of the first visits. The earmold will be small pieces of plastic, shaped to fit snugly in the child's ear and the hearing aid is attached to the earmold. The earmold functions to help keep the hearing aid on and to direct the sound into the child's ear. Today's hearing aids and earmolds come in an array of colors from which to select.

Be prepared for two or three visits to the audiologist to get the hearing aids and custom-fit earmolds ready for your child. After that, you can expect to go to audiological visits every two or three months to monitor your child's hearing loss, to check that the earmolds fit properly, and to gain additional information about your child's hearing loss through different testing methods as your child matures and learns to listen. Whenever you feel that your child is not hearing as well as he or she should or if you think there is a problem with his or her equipment, you should call the audiologist to schedule an appointment.

Hearing aids are appropriate for even the youngest children. They assist children by amplifying or making sound louder. But unlike glasses, which correct a vision loss, hearing aids do not restore normal hearing. Sounds are made louder by a hearing aid, but not necessarily clearer. Hearing aids are tools in the development of communication skills. In order for children to get the most benefit from hearing aids they must be used in conjunction with a comprehensive intervention program that focuses on hearing and communication.

Hearing aid selection and fitting is an ongoing process that is part of a child's intervention program. This does not mean that a child has to wait to get hearing aids until a final recommendation for equipment purchase can be made. Pediatric audiologists can use basic audiological information to select a device, and loaner hearing aids can be provided to assist in determining the potential benefit. The pediatric audiologist works with the family to evaluate the benefit the child is receiving from the hearing aids. During this time, the family and the intervention team will work together to assess these benefits, as well as any problems the child may have with wearing the hearing aids. Eventually, the team, under the guidance of the pediatric audiologist, will determine which technology is most beneficial to the child's development. It is critical for young

children to begin amplification and intervention as soon as a hearing loss is identified.

How does a hearing aid work?

All hearing aids have several common components. These include a microphone (captures sound from the air and changes it to an electrical signal), an amplifier (makes the signal louder), a transducer (changes the signal back to sound so it can be sent to the ear), and a battery (power source).

What types of Hearing Aids and FM (Frequency Modulated) systems are appropriate for infants and toddlers?

Behind the Ear Hearing Aids (BTE)

These units have all the components of the hearing aid encased in a device that fits behind the ear. The signal is delivered to the ear through an earmold. This is the most common hearing aid recommended for young children.

One of the most frequent problems associated with BTE hearing aids is keeping them in place behind the ear and close against the child's head. If a family is having a problem with this, they should tell their pediatric audiologist right away. There are simple adjustments that can be made and products that can be used to help.

Ear Molds for Hearing Aids

Like other hearing aids, Behind-the-Ear hearing aids require the use of an earmold. The earmold is a soft, plastic, flexible piece that fits into the outer ear in order to direct the sound from the hearing aid into the ear. Young children's ears grow at an incredibly fast rate and ear molds will need to be replaced quite often. Earmolds may need to be remade as often as every two or four weeks when a child is very young. As the child matures, his or her growth rate will slow down and the earmolds may be remade less often. Earmolds must fit snugly in the outer ear or feedback (high pitch squealing) will occur. Although turning down the volume of the hearing aids reduces the feedback, it also reduces the strength of the speech signal the child hears.

To make an earmold, the pediatric audiologist makes an impression by putting soft material into the child's outer ear and waiting for it to harden. This impression is sent to an earmold manufacturing company that makes a permanent earmold. The pediatric audiologist selects the kind of earmold and the material from which it will be made.

Frequency Modulated (FM) Systems

Children who use hearing aids often have difficulty hearing speech in the presence of background noise or when the speaker is at a distance greater than three feet. For these situations, a wireless FM system may be recommended. An FM system has two primary components, the receiver worn by the child and the microphone/transmitter worn by the talker. There are different types of FM systems that are appropriate for infants and toddlers.

There are other FM systems that can be attached to a child's personal hearing aids or cochlear implant speech processor. In this case, the FM receiver is coupled to the child's personal technology with a specific adaptor.

Troubleshooting Problems with Hearing Aids

Not surprisingly, hearing aids on children need daily maintenance by the adults in the child's life. The most common problems are dead batteries, ear molds clogged with wax, feedback created noise (a high-pitched whistling noise), frayed cords (but not on BTE aids), or a cracked hearing aid case. When any of these problems occur, the child is not hearing as well as he or she should be. Parents should be sure to check with the audiologist for information and demonstration of how to troubleshoot all of the child's equipment.

Cochlear Implants

Who is a good candidate?

Cochlear implants are approved by the Federal Food and Drug Administration (FDA) for children as young as 12 months who have a hearing loss in the severe to profound range or for those who cannot benefit from amplification or both.

In order to determine eligibility for a cochlear implant, the pediatric audiologist will fit a child with hearing aids and evaluate his or her performance with them. During this time, Birth to Three intervention services will focus on use of the amplification equipment and communication development. Once a family makes the decision to pursue a cochlear implant, the implant center will conduct audiological, developmental, psychological, communication, and medical evaluations in order to determine if a child is a candidate for a cochlear implant. Most health insurance plans including Medicaid will cover the cost of surgery and the implanted device, but parents always need to verify that with their health insurance plan.

What is a cochlear implant?

A cochlear implant is a device with two components: external (those worn on the outside of the ear) and internal (those that are surgically implanted). For children, a typical external component is a behind the ear speech processor.

The speech processor looks similar to a behind-the-ear hearing aid. For children who have difficulty wearing a speech processor, other configurations such as a body-worn device are available. The internal components consist of a receiver and magnet implanted in the skull, and a wire electrode array that the surgeon sets in the cochlea of the ear.

How does a cochlear implant work?

The cochlear implant detects sound through the use of an external microphone. It then changes the sound into a specially coded electrical signal. That signal is transmitted to the internal receiver and electrodes that stimulate the auditory nerve. The auditory nerve then sends a signal on to the brain, which is then able to learn to recognize the speech.

Surgery

Cochlear implant surgery is conducted at a specially designated hospital by a specially trained otolaryngologist. After the surgery and a short recovery period, the implant is set (mapped) to meet the hearing needs of the specific child. The mapping must be repeated on a regular basis to ensure that the child is hearing properly. Neither cochlear implants nor mapping are considered IDEA Part C early intervention services and are typically paid for through private insurance or Medicaid.

Aftercare

Pediatric audiologists trained in cochlear implant mapping and management work with children with cochlear implants. As with amplification devices, cochlear implants are technology that is used in a complete auditory management program.

What happens next?

As mentioned previously, the reauthorization of the Individuals with Disabilities Education Act (IDEA) in 2004 specifically excluded cochlear implants as an assistive technology device, which means that neither the device nor mapping are funded by the Connecticut Birth to Three System (or school districts for children over the age of three). However, the Birth to Three System does support intervention programs necessary for a child to benefit from his or her cochlear implant.

Additional information

Additional information can be obtained from each of the Birth to Three programs that specialize in working with children who are deaf or hard of hearing. In addition, the child's Birth to Three program can connect families with other parents who have gone through this decision making process. The decision

about whether or not to get a cochlear implant is always made in conjunction with a child's primary care physician, pediatric ENT, and the implant center or medical institution involved.

Principle 8 *Parents are advocates for their children who are hard of hearing or deaf. Early intervention should help parents understand their rights as identified in state and federal legislation.*

Legislation and Rights for Individuals who are Hard of Hearing or Deaf

Individuals with Disabilities Education Act (IDEA)

Children are entitled to services in accordance with a federal law known as the Individual with Disabilities Education Act (IDEA). This legislation supports early intervention and education for children with disabilities. Among the many parts to this legislation, Part C regulates services for infants and toddlers from birth to three years old. Part B regulates services for children ages 3-21 years old who receive services from their Local Educational Agency (LEA) or school district.

Part C of the Individuals with Disabilities Education Act (ages birth to three years)

An important issue within this section of the law refers to services and supports occurring in natural environments. As described in IDEA 2004 the *“term ‘early intervention services’ means developmental services that—to the maximum extent appropriate, are provided in natural environments, including the home, and community settings in which children without disabilities participate”* and the IFSP must *include “a statement of the natural environments in which early intervention services will appropriately be provided, including a justification of the extent, if any, to which the services will not be provided in a natural environment”*. For children who are hard of hearing or deaf, the natural environment is often defined as the community in which the child and family participate, including for some families, the deaf community.

There are occasions when children who are hard of hearing or deaf must receive services outside of the community or home setting due to the need for specialized equipment such as an audiometer in a sound proof booth or access to materials to make ear molds. The Birth to Three System recognizes the essential need for these services and recommends they be delivered as part of the early intervention program. These clinical services should be one component of a more comprehensive program that includes opportunities for the child to participate in intervention at home and in the community.

Another essential component of Part C of the IDEA is the focus on families and their right to make decisions regarding what is best for their children. The Birth to Three System offers a range of intervention philosophies for children who are hard of hearing or deaf. Families are guided through this decision making process by their service coordinator. Parents are encouraged to make the program and philosophical choice that they feel is the best match for their family. Each of the programs specializing in hearing loss and deafness will provide families with the information they need to make decisions.

Part B of the Individuals with Disabilities Education Act (ages 3 to 21 years)

A child's family may contact their local school district to inquire about services for the future at any time. The service coordinator will provide families with the necessary information on who to contact in their town. The Birth to Three System recommends making a formal referral to the local school district at least six months prior to a child's third birthday. This is the first step in learning if a child is eligible to receive services as a special education student when he or she turns three years old. If it is determined that a child's hearing loss significantly affects his or her ability to learn and that he or she will require some specially designed instruction, the child will be eligible for services from the local school district upon his or her third birthday. This will be determined by the local school district with input from the Birth to Three program.

An eligible child's school program, services and supports will be described in a document called an Individualized Education Plan or IEP. This document is developed at a meeting in the school district of a Planning and Placement Team (PPT). This team consists of the parents and the staff of the local school district.

Connecticut special education law (10-76 C.G.S.) was amended in 2012 to include this new section, called by advocates a "Deaf Child's Bill of Rights":

The individualized education program for any child identified as deaf or hearing impaired shall include a language and communication plan developed by the planning and placement team for such child. Such language and communication plan shall address: (1) The primary language or mode of communication chosen for the child, (2) opportunities for direct communication with peers and professional personnel in the primary language or mode of communication for the child, (3) educational options available to the child, (4) the qualifications of teachers and other professional personnel administering such plan for the child, including such teacher's or personnel's proficiency in the primary language or mode of communication for the child, (5) the accessibility of academic instruction, school services and extracurricular activities to the child, (6) assistive devices and services for the child, and (7) communication and physical environment accommodations for the child.

The State Department of Education has also posted on its website a planning tool to assist PPTs to address the special language and communication considers of deaf and hard of hearing students. (See *Appendix Six*)

Section 504 of the Rehabilitation Act of 1973

Section 504 is a civil rights law that prohibits discrimination against individuals with disabilities. Section 504 ensures that the child with a disability has equal access to an education. Beginning in Kindergarten, the child may receive accommodations and modifications. Unlike the Individuals with Disabilities Education Act (IDEA), Section 504 does not require the school to provide an individualized educational program (IEP) that is designed to meet the child's unique needs and provides the child with educational benefit. Under Section 504, fewer procedural safeguards are available to children with disabilities and their parents than under IDEA.

If the child is determined to be covered under Section 504, the school district must develop and implement a plan for the delivery of needed services. It is important to know that if a child is eligible for IDEA he or she is also considered to be protected under Section 504. However, if a child is eligible under 504, he or she may not be protected under IDEA.

Americans with Disabilities Act of 1990 (ADA)

This is a civil rights law that guides our national approach to individuals with disabilities. There are numerous parts to this law covering the following areas: Employment, Public Service, Public Accommodations and Services Operated by Private Entities, Telecommunications Relay Services, and Miscellaneous Provisions. For families with young children, sections of this legislation state that, *"No individual shall be discriminated against on the basis of disability in the full and equal enjoyment of the goods, services, facilities, privileges, advantages or accommodations of any place of public accommodation by any person who owns, leases, or operates a place of public accommodation."* Interpretation of this law can be complex based on the difficulty and cost of the accommodation. Families often find the ADA law supportive in determining accommodations for involvement in community resources such as childcare or recreational activities.

There are certain aids and services described in the ADA that support individuals who are hard of hearing or deaf. For example, *"qualified interpreters or other effective methods of making aurally delivered materials available to individuals with hearing impairments are owed."* Persons who require interpreter services may access this by contacting the Connecticut Commission on the Deaf. (See *Connecticut Resources in Appendix Four for contact information*).

Title IV of the ADA, is called Telecommunications Relay Services.

This guarantees access to telephone communication for persons with hearing impairments or speech impairments. It is important for Birth to Three programs to have this information in order to communicate with parents who may be hard of hearing or deaf. There are two primary ways of telephone communication with an individual who is hard of hearing or deaf:

- Telecommunication Device for the Deaf or TDD is a machine that allows an individual who is hard of hearing or deaf to communicate through radio waves or over telephone lines by sending and receiving the message in print. This machine is called a Text Telephone or Teletypewriter (TT/TTY).
- Telecommunications Relay Service provides full telephone accessibility to people who are hard of hearing, deaf or speech disabled. Specially trained Communication Assistants complete all calls and stay on line to relay messages either electronically to a TT/TTY or verbally to hearing parties. This service is known in our state as Relay Connecticut. It is available 24 hours a day, 365 days a year, with no restrictions on the length or number of calls placed. Both TT/TTY and voice users may initiate a call through Relay Connecticut. (*See Appendix Five on the use of Relay Connecticut.*)

TRANSITIONING FROM BIRTH TO THREE SERVICES

Part C services end by the time of the child's third birthday, so families need to plan for this transition. Starting at the initial IFSP meeting the service coordinator will talk with the family about what will happen when the child turns three years old or no longer needs Birth to Three services. The discussion and any activities identified to plan for a smooth transition are written on Section IV, the transition plan, of the IFSP. This plan is reviewed as needed throughout the time the child is in the Birth to Three System and rewritten at least annually by the service coordinator with the parent.

If the child and family have acquired some technology or equipment purchased by the Connecticut Birth to Three System, the use of this equipment after the age of three will be discussed and addressed in the written transition plan. Children may keep assistive technology devices purchased by the Connecticut Birth to Three System as long as the device is needed. If a child continues to use equipment after the age of three, the Connecticut Birth to Three System will not assume responsibility for repair or maintenance.

To assist the school district in preparing for the children who may need preschool special education services when they turn three years old, parents are encouraged to notify their school district about their child's needs. The family can contact their school district on their own or sign a permission to release information (form 3-3) and the service coordinator will send current information

such as reports and IFSPs. When the child is 2½ years old, the Birth to Three service coordinator will ask the family if they want to make a formal referral to their school district. The referral (form 3-8) serves as official notification to the school district that the family would like to have the child evaluated to determine eligibility for preschool special education services. Even if the family has already signed a release of information form (form 3-3) to the school district, the referral (form 3-8) needs to be sent to the school district to acknowledge the family's interest in obtaining an evaluation from the school district to determine the child's eligibility for special education. A parent guide and a short DVD are available to help explain this process. Both are available from the Birth to Three service coordinator.

The Birth to Three service coordinator is also responsible for convening a transition conference no later than 90 days before, or with agreement from all involved up to 9 months before the child's third birthday. The conference must include the parent(s), the service coordinator; a representative of the child's school district, if a referral has been sent, and anyone else the family feels would be helpful to plan for the child's transition. The purpose of the conference is to meet the school district staff and discuss the next steps in the transition process. At this meeting, the parent and Birth to Three program may choose to review the current IFSP which would include reviewing and possibly revising the transition plan. If the child is not being referred to preschool special education services, a transition conference must still be convened with the same participants except the school district representative.

The list below gives some suggestions of things to discuss during the transition conference. This meeting is held prior to the determination that the child is eligible for Preschool Special Education, therefore these items will require input not only from school district personnel, but from the family's insurance company and other community programs and resources as well.

- How is the child doing with the communication modality chosen by the family?
- What has the Birth to Three program found to be the levels of support needed by this child?
- What are the child's needs for audiological services in the future; where will this occur and how will it be paid for?
- Does the child currently have any assistive technology equipment or services in place, and if so does the family need to plan for maintaining the assistive technology?
- Who will the family contact for ongoing information and guidance on the child's hearing impairment?
- What opportunities will the family have for the child to interact with peers including children who are and are not hard of hearing or deaf?
- Is the child or family going to receive services that will require transportation?
- Do the staff at future community programs want any additional training?

- How and when will the child's eligibility for preschool special education services be determined?

A Planning and Placement team (PPT), which includes the parents, will review the developmental information available on the child, as well as gather additional information if needed to determine the child's eligibility. Sometimes this meeting is combined with the Transition Conference.

The Connecticut state regulations define hearing impaired as meaning "a child with a measurable hearing impairment which, with or without amplification, impairs linguistic processing and adversely affects educational performance. The term shall include both hard of hearing and deaf children." [Regulations Concerning State Agencies Sec. 10-76a-2(c)]. If the child is eligible for special education, the team will plan an appropriate educational program; this will be documented in an Individualized Education Plan (IEP).

For more information on other state and national resources and a tool for PPTs to use to address the special language and communication considerations of deaf and hard of hearing students, see Appendices Four and Six.

CONCLUSION

The Connecticut Birth to Three System is committed to working with families to develop supports and services that meet the unique needs of each child and family. This process is designed to recognize and acknowledge the child and family's current concerns, priorities, and resources, as well as assisting families to plan for the future.

For families with young children that have been diagnosed as hard of hearing or deaf, this is a time when significant amounts of information is shared and interpreted, and decisions have to be made. There are many methods of intervention for a young child who is hard of hearing or deaf. Individuals who believe one method is better than another may be passionate about this belief. However, it is important for families who have a young child to obtain the perspective of many professionals and individuals in the hard of hearing or deaf community. This will assist parents in making decisions about what works best for them and their children and those decisions may change over time. Families are encouraged to use their Birth to Three experience to engage in a process of gathering information, and questioning and challenging this information. The goal is to help families to meet the unique needs of their child who is hard of hearing or deaf and lay the foundation for their children to develop to their optimum abilities.

QUESTIONS AND ANSWERS

- Q:** *My child's audiologist has not been able to complete an audiogram on my child, yet they want him to wear hearing aids. Is this OK?*
- A:** Yes, the identification of a child with a hearing loss is the first step in a process of audiological services. When a child is very young, it may take a series of evaluations to complete a hearing profile. At the same time, the audiologist should put hearing aids on as soon as possible and refine over time. A pediatric audiologist will use the information acquired in testing as well as trial periods with hearing aids to complete the audiological recommendations for your child.
- Q:** *We would like our son to learn to use his hearing more. We feel if he wears his hearing aids all the time he will never learn to hear without them. Should we leave his hearing aids off for a part of each day?*
- A:** No, this is something you should discuss with your service coordinator, your child's audiologist or interventionist. They will assist you in identifying appropriate activities to help your son learn to use his hearing. This will ensure your child's hearing aids are used full time. Periodic non-use of a hearing aid does not improve the function of residual hearing.
- Q:** *My pediatrician told me that my daughter was too young to have her hearing accurately tested. She is seven months old. Is this true?*
- A:** No, although it is not possible for a pediatrician to test the hearing of the youngest infant or toddler, a pediatric audiologist who has specific training and equipment to test young children can do this.
- Q:** *Does insurance cover the cost of hearing aids?*
- A:** Commercial medical insurance policies do not always cover the cost of hearing aids. Many cover up to \$1000. This is determined on a case-by-case basis depending on the benefits of your particular policy. Your service coordinator will assist you with pursuing financial assistance to purchase your child's hearing aids. As the payer of last resort, the Birth to Three System will cover the cost of hearing aids as assistive technology listed on an IFSP, if there is no other method of payment.
- Q:** *What happens to equipment purchased by the Birth to Three System when my child turns three years old?*
- A:** Children may keep assistive technology devices purchased by the Birth to Three System as long as the device is needed. The equipment should be listed on the transition plan in the child's IFSP and reviewed and updated during the transition conference with the family and the local school district.

Q: *Can hearing aids damage my child's hearing?*

A: The audiologist will adjust the settings of the hearing aids so that they will not damage your child's hearing. If you have concerns about the loudness of the sound coming through the aids you should speak with your audiologist.

Q: *How do I know if my son is a candidate for a cochlear implant?*

A: This is a discussion you will need to have with a variety of people, including your son's primary health care provider, audiologist, and intervention team. This decision will be made based on the extent of your son's hearing loss, the benefit he gets from wearing hearing aids, and an evaluation performed at a cochlear implant center. Your son's service coordinator can provide you with information and resources about this process.

Q: *Who pays for cochlear implants?*

A: Typically, your health insurance will cover the cost of a cochlear implant. This should be discussed with your insurance company or Medicaid. Neither cochlear implants nor the mapping of cochlear implants is covered by the Birth to Three System.

Q: *Someone told me that if my child uses sign language she would never learn to speak. Is this true?*

A: There are many different philosophies about the use of sign language and the development of spoken language, although research shows that generally the use of sign language will facilitate the acquisition of spoken language. There are many individuals who use sign language who also speak. You should discuss your child's communication program with your intervention team if you have concerns regarding the development of spoken language.

Q: *My nine-month-old daughter is constantly throwing her hearing aids off. What can I do to keep them on?*

A: You should work with the members of your intervention team to develop a plan to address this problem. This may include some specific activities designed to get her adjusted to wearing the aids, some additional devices that will keep the aids in place, or some further audiological assessment to determine if the aids are working well for her type of hearing loss.

APPENDICES – INDEX

1. Mission of the Connecticut Birth to Three System
2. Types of Hearing Tests
3. Description of an Audiogram
4. Resources Available on the Internet, Connecticut Resources, and National Resources and Organizations
5. What is Relay Service?
6. Language and Communication Plan for Planning and Placement Teams
7. Choosing a Birth to Three Program



MISSION

The Mission of the Connecticut Birth to Three System is to strengthen the capacity of Connecticut's families to meet the developmental and health-related needs of their infants and toddlers who have delays or disabilities. The system will ensure that all families have equal access to a coordinated program of comprehensive services and supports that:

- foster collaborative partnerships
- are family centered
- occur in natural environments
- recognize current best practices in early intervention
- are built upon mutual respect and choice

Partnerships: Effective supports for families depend on providers and families working closely with a variety of community, state and federal programs.

Family Centered: Evaluation, planning and services are designed around the family's needs, concerns, and priorities and keep the whole family in mind.

Natural Environments: Providing services within activities that occur in the child and family's home and community offers opportunities for the child to learn and practice new skills and participate more fully in his regular daily routine.

Best Practices: Research and laws continually require new approaches to services. Providers use up-to-date, effective service strategies.

Respect and Choice: Families choose their Birth to Three program. Decisions about services and supports reflect the family's knowledge, beliefs, hopes, family characteristics and culture. Achievements are made by families and providers working together on the same level and recognizing that each has important information to share.



Appendix Two

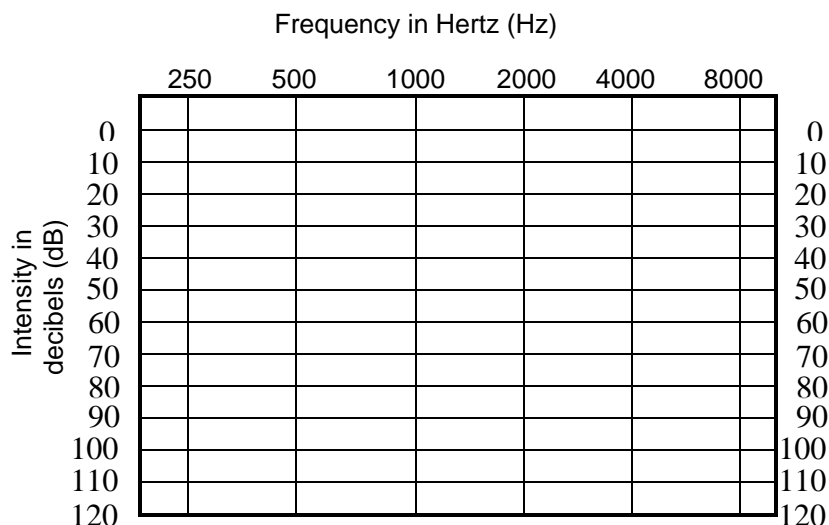
Types of Hearing Tests

Name of Test	Procedure	Format of Results	Age Appropriate
Auditory Brainstem Evoked Response (ABER)	<ul style="list-style-type: none"> • Requires no voluntary response from child • Response is measured by electrodes on scalp • Sounds are presented through earphones • Estimate of hearing level by determining the softest sounds that produce measurable nerve response 	Wave form that indicates response of auditory nerve (CN VIII)	<p>Infants under 4 months without sedation</p> <p>Over 4 months infants and toddlers typically require sedation</p>
Auditory Steady State Response (ASSR)	<ul style="list-style-type: none"> • Requires no voluntary response from child • Response is measured by electrodes on scalp • Sounds are presented through insert earphones • Estimate of hearing level by determining the softest sounds that produces a measurable nerve response 	<p>Wave form that indicates the response of the auditory nerve.</p> <p>Provides threshold information for severe - profound hearing losses</p>	<p>Infants under 4 months without sedation</p> <p>Over 4 months infants and toddlers typically require sedation</p>
Otoacoustic Emissions (OAE)	<ul style="list-style-type: none"> • Requires no voluntary response from child • Response is measured by a small probe in the ear canal • Sounds are presented through the same probe • Does not determine severity of loss. Does determine presence of loss 	Graph displaying response of inner ear	<p>Infants, toddlers, and older children</p> <p>No sedation is required</p>
Tympanometry Measures	<ul style="list-style-type: none"> • No voluntary response is required from the child • Response is measured by a probe placed in child's ear canal • Sounds are presented through the same probe • Special equipment needed for infants 6 months or younger • A computer measures how the eardrum responds to different pressures • Does not measure hearing loss-indicates status of the middle ear • 	Graph of response of eardrum to changes in pressure	<p>Infants, toddlers, and older children</p> <p>No sedation is required</p>

Name of Test	Procedure	Format of Results	Age Appropriate
Behavioral Observation Audiometry (BOA)	<ul style="list-style-type: none"> Requires a response from a child -- eye widening; head turning Conducted in a soundproof booth Sounds presented via earphones or speakers in varied pitch and loudness (from an audiometer) Estimates the degree of hearing loss 	Audiogram -- softest levels at which these responses to the different pitches can be measured	Younger than 6 months of age. Should be used in conjunction with objective test measures
Visual Reinforcement Audiometry (VRA)	<ul style="list-style-type: none"> Requires a learned response (looking at a lighted toy) Conducted in a soundproof booth Sounds presented via loudspeakers, headphones, or a small vibrator are varied in loudness and pitch by an audiometer Degree of hearing loss is determined 	Audiogram -- softest levels at which the child responds the different pitches	6-30 months Should be used in conjunction with objective test measures.
Conditioned Play Audiometry (CPA)	<ul style="list-style-type: none"> Requires a learned response (throw a ball in a bucket) Conducted in a soundproof booth Sounds presented via loudspeakers, earphones, or small vibrator are varied in loudness and pitch by an audiometer Degree of hearing loss is determined 	Audiogram - softest levels at which child responds to different pitches	30 months and above Should be used in conjunction with objective test measures.

Appendix Three

Description of an Audiogram



Frequency: The horizontal axis is a display of frequency (pitch) going from low frequency sounds on the left side to high frequency sound on the right. The unit for frequency measurement is Hertz (Hz) also known as cycles per second (cps).

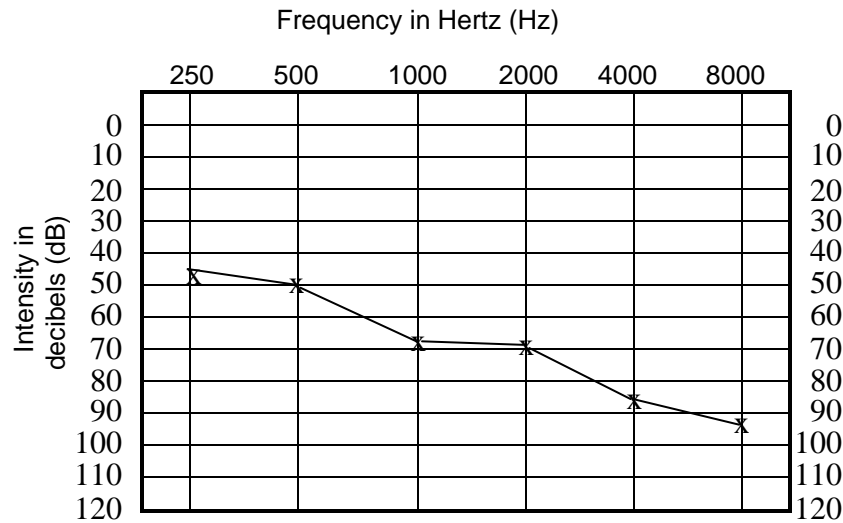
Intensity: The vertical axis is a display of intensity (loudness) going from low (soft) intensity at the top to high (loud) intensity at the bottom. The unit for intensity measurement is the decibel (dB). The specific unit used on the audiogram is dB Hearing Level (dB HL).

Hearing Level: Hearing Level is displayed on the audiogram as an interaction of intensity and frequency. That is, the audiologist determines the softest level (threshold) at which a person can hear a particular frequency and indicates that on the audiogram. As softer intensity is at the top of the audiogram, hearing levels marked on the upper part of the audiogram are better than those at the lower part. Therefore, the greater the degree of hearing loss, the further down on the audiogram the marks appear.

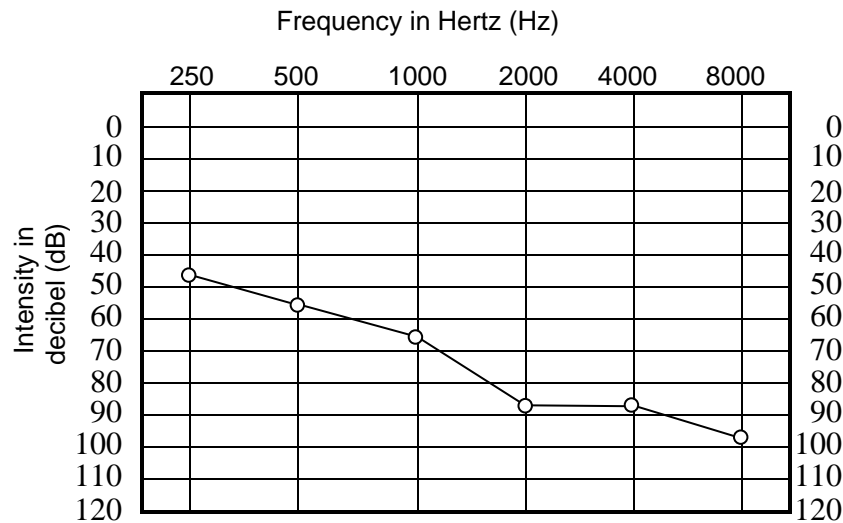
- **Air Conduction:** Hearing level is determined using earphones and is marked (see the example below) as a circle for the right ear (red is the designated color) and an X for the left ear (blue is the designated color).
- **Bone conduction:** Hearing level is determined using a vibrator placed on the mastoid bone behind the ear. A bracket is the symbol that designates the bone conduction response.
- **Sound field:** Hearing level is determined using a loudspeaker. An S is used to indicate the air conduction response of the better ear if there is an ear difference.

The following is an example of an audiogram for a child with a moderate to profound hearing loss in both ears:

Left Ear



Right Ear



The audiograms pictured above demonstrate a moderate to profound hearing loss. Usually the results of an audiogram are depicted using one grid for both ears though occasionally the results for both ears are shown on separate grids as they are here to demonstrate how the results might look. Whether on one grid or separate grids, the left ear responses are recorded using an X and the responses for the right ear are recorded with a circle.

Look at the column that has “250” listed at the top. This 250 refers to a “frequency” or pitch of 250 Hz, which is a sound similar to “middle C” on the piano. This is the lowest pitch that was tested on this audiogram. Looking down that column, you can see that there is a circle at 50 dB, which means that the softest sound that the child responded to occurred at an intensity of 50 dB. If you look at the child’s responses further to the right on the audiogram, you can see how loud the sound had to be for the child to respond at 500, 1000, 2000, 4000, and 8000 Hz as the sound got higher and higher in pitch.

Appendix Four

Resources Available on the Internet

www.audiologyawareness.com/hearinfo_audiogramread.asp

"How to Read an Audiogram" presented by: The Audiology Awareness Campaign.

<http://auditoryneuropathy.tripod.com>

Provides information about auditory neuropathy

<http://vl2.gallaudet.edu/educator.php?id=2.11>

"Advantages of Early Visual Language" January 2011. Click on "view PDF"
Outlines the advantages for deaf and hard of hearing children learning American Sign Language and English

www.babyhearing.org

"My Baby's Hearing". Babyhearing.org is brought to you by a team of professionals at Boys Town National Research Hospital. We are: Audiologists, Speech-Language Pathologists, Teachers of the Deaf, Geneticists, Doctors and Parents of Deaf and Hard of Hearing Children.

www.birth23.org

Connecticut's Birth to Three System website has Guidelines on: Children Referred for Speech Delays, Infant Mental Health, and Assistive Technology under "Publications". Also see other websites under "Hotlinks" in the Deaf and Hard of Hearing section

www.deafed.net/publisheddocs/sub/ivd1c.htm

Bilingual-Bicultural education of deaf and hard of hearing children supports the use of American Sign Language (ASL) as a basis for learning English as a second language. Deaf culture is discussed by for children to learn more about themselves as members of a deaf community.

www.earinfo.com/howread1.html

How to Read Your Hearing Test. This site walks you through the layout of the audiogram and how to read one.

www.hearingexchange.com

Hearing Exchange is a website for the exchange of ideas and information on hearing loss and related issues. It is supportive of all methods of communication.

www.lhh.org

Early Identification of Hearing Loss in Infants – Statistics about prevalence of deafness in the population, recommended age for screening, use of modern technology and consequences of delay in diagnosis.

<http://www.throughyourchildseyes.com>

This video interview a variety of families and their use of American Sign Language with their deaf children.

www.jtc.org

The John Tracy Clinic is a private, non-profit education center that offers free parent distance education/correspondence courses for families of young deaf children ages birth to five years.

www.ncbegin.org

Beginnings for Parent of Children who are Deaf or Hard of Hearing, Inc is a nonprofit organization in North Carolina that provides information for families with deaf or hard of hearing children. It is supportive of all communication methods.

<http://www.ndepnow.org/agenda/agenda.htm>

The National Agenda, published by the National Deaf Education Project, is a coalition of parent, consumer, professional, and advocacy organizations involved in the education of children who are deaf and hard of hearing, working to develop an effective, communication and language -driven educational delivery system.

www.oraldeafed.org

Oral Deaf Education Library (describes the technology available today through hearing aids and cochlear implants).

www.raisingdeafkids.org

Information about children with hearing loss is provided by the Deafness and Family Communication Center at the Children's Hospital of Philadelphia

www.rit.edu/ntid/educatingdeafchildren

International experts answer your current questions about choices, controversies, and decisions faced by parents and educators of deaf and hard of hearing children including topics such as: reading levels, cochlear implants, early intervention, IEP planning, and children with additional disabilities.

www.signingonline.com

Signing Online provides interactive web-based instruction in American Sign Language

<http://www.state.ct.us/cdhi/index.htm>

Guide to Services for the Deaf or Hard of Hearing in Connecticut
Connecticut Commission on the Deaf and Hard of Hearing

http://www.gallaudet.edu/documents/dsdj_grosjean_bsl.pdf

"The right of the deaf child to grow up bilingual" François Grosjean, University of Neuchâtel, Switzerland. Every deaf child, whatever the level of his/her hearing loss, should have the right to grow up bilingual

www.nad.org

National Association for the Deaf

www.handsandvoices.org

Hands and Voices is a non-profit, parent-driven national organization dedicated to supporting families of children who are deaf or hard of hearing. Non-biased

about communication methodologies, membership includes families who communicate orally and/or manually.

www.nidcd.nih.gov/health/hearing

National Institute on Deafness and Other Communication disorders

www.cdc.gov/ncbddd/ehdi

Early Hearing Detection and Intervention Program – Centers for Disease Control and Prevention

www.agbell.org

Alexander Graham Bell Association for the Deaf and Hard of Hearing

<http://clerccenter.gallaudet.edu>

Laurent Clerc National Deaf Education Center

www.infanthearing.org

National Center for Hearing Assessment and Management (NCHAM)

<http://successforkidswithhearingloss.com>

Supporting success for children with hearing loss

<http://kidsandhearingloss.org/>

Hearing Loss Association of America: Parent to parent resources for parents of children with hearing loss

www.ed.gov/offices/OERI/ECI/earinfections.pdf

Early infections and language development

www.asha.org

American Speech-Language-Hearing Association

<http://cochlearimplantonline.com/site/how-to-read-an-audiogram>

How to read an audiogram

<http://earcommunity.com>

Unilateral hearing loss

Resources for transitioning to special education services

CT State Dept of Education

<http://www.sde.ct.gov/sde/>

<http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Special/SLguide03.pdf>

(Guidelines for Speech and Language Programs in schools)

Connecticut Parent Advocacy Center

www.cpacinc.org

Connecticut Resources and Organizations

<p>CAD – Connecticut Association of the Deaf PO Box 270539 West Hartford, CT 06127-0539 www.deafcad.org</p>	<p>Connecticut Parent Advocacy Center (CPAC) 338 Main Street Niantic, CT 06357 (800) 445-2722 www.cpacinc.org</p>
<p>Connecticut Birth to Three System 460 Capitol Avenue Hartford, CT 06032 (800) 505-7000 For Guidelines on <i>Children Referred for Speech Delay, Natural Environments, Infant Mental Health</i> www.birth23.org</p>	<p>Connecticut Hands & Voices Chapter Start-Up Coordinator P.O. Box 210 Wethersfield, CT 06129-0210 (860) 529-7766 CThandsandvoices@cox.net</p>
<p>CT Family Support Network Patti Silva Deaf and Hard of Hearing Advocacy Coordinator Phone: (860) 529-7766 Email: cakes01@cox.net www.ctfsn.org</p>	<p>Connecticut Department of Education – Bureau of Special Ed. Consultant for Deaf and Hard of Hearing P.O. Box 2219 Hartford, CT 06106 (860) 713-6921 Fax (860) 713-7153 http://www.sde.ct.gov/sde</p>
<p>CT Chapter AG Bell http://nc.agbell.org/page.aspx?pid=530 Look for Connecticut chapter information</p>	<p>Family Services Woodfield 475 Clinton Avenue Bridgeport, CT 06605 (203) 368-4291 www.fswinc.org</p>
<p>Connecticut Commission on the Deaf and Hearing Impaired 67 Prospect Avenue, 3rd floor Hartford, CT 06106 1-800-708-6796 General: 860-231-8756 Voice/TTY 860-231-8169 TTY only Interpreting 860-231-1690 Voice/TTY Emergency number 860-231-7623 Voice/TTYFax 860-231-8746 http://www.cdhi.ct.gov/cdhi/site/default.asp</p>	<p>PATH - Parents Available to HELP Network PATH Parent to Parent of CT Parents Available to Help, Inc. P.O. Box 117 Northford, CT 06472 1-800-399-PATH (CT only) or 1-203-234-9554 www.pathct.com</p> <hr/> <p>Quiet Corner SHHH, Inc. Self Help for Hard of Hearing People PO Box 314 Ashford, CT 06278 http://qcshhh.tripod.com</p>
<p>Connecticut Department of Public Health <i>Children with Special Health Care Needs</i> 1-800-505-7000 http://www.ct.gov/dph/cwp/view.asp?a=3138&Q=387702&PM=1 <i>Newborn Hearing Screening Program</i> 410 Capitol Avenue, MS #11 MAT PO Box 340308 (860) 509-8081 www.dph.state.ct.us</p>	<p>Relay Connecticut Telecommunication Relay Service (800) 842-9710 TTY (800) 833-8134 Voice www.relayconnecticut.com</p>

<p>Connecticut Speech, Language and Hearing Association 124 Kenneson Rd. Eastford, CT 06242 (860) 377-9066 www.ctspeechhearing.org</p>	<p>State Education Resource Center (SERC) 25 Industrial Park Road Middletown, CT 06457 (800) 842-8678 www.ctserc.org</p>
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National Resources and Organizations

<p>Alexander Graham Bell Association for the Deaf, Inc. 3417 Volta Place NW Washington, DC 20007 (866) 337-5220 TTY (202) 337-5220 www.agbell.org</p>	<p>American Speech-Language-Hearing Association 2200 Research Blvd Rockville, MD 20850 (301) 296-5700 www.ASHA.org/public</p>
<p>American Society for Deaf Children P. O. Box 3355 Gettysburg, PA 17325 (800) 942-2732 Voice/TTY www.deafchildren.org</p>	<p>American Academy of Audiology 1-(800)-222-2336 www.audiology.org</p>
<p>Beginnings for parents of children who are deaf/hard of hearing 302 Jefferson St. Suite 110 Raleigh, NC 27605 (919) 715-4092 V/TTY www.beginningssvcs.com</p>	<p>Gallaudet University 800 Florida Avenue NE Washington, DC 20002-3695 (202) 651-5000 www.gallaudet.edu</p>
<p>Hearing Loss Association of America 7910 Woodmont Avenue, Suite 1200 Bethesda, MD 20814 (301) 657-2248 Voice (301) 657-2249 TTY www.hearingloss.org</p>	<p>National Center for Hearing Assessment and Management Utah State University 2880 Old Main Hill Logan, UT 84322-2880 (435) 797-3589 www.infanthearing.org</p>
<p>National Cued Speech Association PO Box 31345 Raleigh, NC 27622 (800) 459-3529 www.cuedspeech.org</p>	<p>National Information Center On Deafness 800 Florida Avenue, NE Washington, DC 20002-3695 (202) 651-5051 Voice (202) 651-5054 TTY http://clerccenter.gallaudet.edu</p>

<p>Starkey Hearing Foundation 6700 Washington Ave. South Eden Prairie, MN 55344 (866) 354-3254 www.starkeyhearingfoundation.org</p>	<p>National Technical Institute for the Deaf at Rochester Institute of Technology Lyndon Baines Johnson Building 52 Lomb Memorial Drive Rochester, NY 14623-5604 (716) 475-6700 Voice (716) 475-2181 (TTY) www.ntid.rit.edu</p>
<p>National Association of State Directors of Special Education, Inc. www.nasdse.org This is the national organization for state special education directors. They have a publication entitled "Meeting the Needs of Students Who are Deaf or Hard of Hearing." Although this document costs \$25 to order from the publication section of their website, American School for the Deaf will make it available at no cost to any parent who calls to request it: 860 570 2300</p>	<p>Center for Education Research Partnership www.rit.edu/ntid/cerp</p>

Appendix Five

What is Relay Service and Video Relay Service?

Relay Service

Telecommunications relay service provides full telephone accessibility to people who are deaf, hard of hearing or speech disabled. Specially trained Communication Assistants (CAs) complete all calls and stay on-line to relay messages either electronically over a Text Telephone (TT/TTY) or verbally to hearing parties.

The service, known as Relay Connecticut in our state is available 24 hours a day, 365 days a year, with no restrictions on the length or number of calls placed. This valuable communication tool gives all individuals who are deaf, hard of hearing or speech disabled the opportunity to make personal and business calls just like any other telephone user. Both TT/TTY and voice users may initiate calls through Relay Connecticut. The toll free access numbers are 1-800-842-9710 (TT/TTY) and 1-800-833-8134 (Voice).

Relay Connecticut is strictly confidential. All calls are kept private, and no records of any conversation are maintained. CAs do not share information regarding the contents of any relay call, unless they are required to do so by state or federal law.

Please refer to your local directory for the directory assistance number.

Video Relay Service

Video Relay Service (VRS) is a communication technology where the deaf and hearing consumers are in different locations and are linked through an interpreter provided through a relay center. Users of VRS must have equipment that allows them to send their image to the Video Relay Center. Once connected, a deaf caller can simply sign a message to the sign language interpreter, who conveys it to the person called. That person, in turn, can reply and the interpreter will transmit the message in sign language back to the deaf caller.

In the U.S, the Federal Communication Commission regulates VRS services and provides some funding. There are currently about 25 different companies offering VRS services.

Appendix Six

Name of Student

Date

Language and Communication Plan

A tool designed to assist the PPT in addressing the special language and communication considerations of deaf and hard of hearing students

Regardless of the amount of the student's residual hearing, the ability of the parent(s) to communicate, or the student's experience with other communication modes, **the Planning and Placement Team (PPT) has provided educational opportunity and considered the following:**

1) a. the language & communication needs of the student through:

Assessment Discussion Observation

b. the student's primary language/communication mode is one or more of the following:

Spoken Language American Sign Language English-based manual or sign system
 Other _____.

2) the availability of deaf/hard of hearing adult role models and a peer group of the student's communication mode or language.

Determination/Action plan

3) all educational options available for the student, the explanation of which has been provided by the PPT.

Options discussed

4) the certification and qualifications of teachers, *interpreters and other personnel, required to deliver the language and communication plan, as well as the proficiency in and the ability to accommodate for the student's primary communication mode or language.

*Includes American Sign Language Interpreter; English Transliteration; Oral Interpreting; Cued Language Transliteration; Deaf-Blind Interpreting

Determination/Action plan

Name of Student

Date

5) the accessibility (related to communication) of academic instruction, school services, and extracurricular activities the student will receive

Determination/Action plan

6) the necessity and use of appropriate accommodations/modifications, including assistive devices/services; communication accommodations; physical environment accommodations:

Assistive Devices/Services

- Captioned / Signed media
- FM System
- Note taking
- TTY / Video phone / Cap Tel
- Speech to Text
- Captioned Services (i.e., CART, C-Print, Typewell)
- Hearing Aid / Cochlear Implant monitoring
- Sound field system
- Augmentative Communication Device
- Other: _____

Communication Accommodations

- Specialized seating arrangements: _____
- Obtain student's attention prior to communicating through speech, sign, and/or visual
- FM System
- Reduce auditory/visual distractions (i.e. background noise)
- Enhance speech reading conditions (avoid hands in front of face, mustaches well-trimmed, no gum chewing)
- Clearly enunciate speech/signs
- Allow time for processing information
- Repeat or rephrase information when necessary and check for understanding

Physical Environment Accommodations

- Noise reduction (carpet & other sound absorption materials)
- Special use of lighting and seating
- Room design modifications
- Alerting devices (visual and auditory)
- Access to announcements via visual and auditory means (general information, emergency)

Appendix Seven

Choosing a Birth to Three Program

Here are the types of questions parents should ask when calling the Birth to Three programs that specialize in serving children who are deaf or hard of hearing.

What is the mission of your program?

What communication approach will you use to teach my child (such as auditory-verbal, cued speech, or total communication – see page 19)? Why do you think that's the best for my child and family?

How does your program differ from the other two programs?

Who will be coming to my home?

Who has to be involved in the home visits?

Can we stay with our current audiologist?

How often would we have to come to your center? How will transportation be reimbursed or provided?

Where do most of the children enrolled in your program go when Birth to Three services end?

How would you help us transition to a preschool program?

How would you involve my child care provider?

Who needs to be involved in those visits?

Who pays for the equipment my child needs?

My child has other concerns primarily involving movement. Will you be able to offer services from physical and occupational therapists should my child need it?

Are there families whose children have been through your program that I can talk to?