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As a parent of an infant with a newly diagnosed hearing loss, the decisions to be made can seem overwhelming and the outcomes unknown. This article provides an overview of what you can expect after you’ve received the diagnosis that your child has a hearing loss and the “next steps” if you’ve chosen to pursue listening and spoken language for your child.

Early Intervention

“Early Intervention” is a term that describes the identification and treatment of developmental or physical challenges during the ages of birth to 3 years old. For families of children with hearing loss, the early intervention period represents the time when decisions are made regarding a desired communication outcome and for planning the steps necessary to attain the chosen end result. Early intervention is extremely important since, for an infant or child who is deaf or hard of hearing, timing is essential. The human brain is programmed to learn language during the first six years of life – the first three years being the most critical. Therefore, it becomes increasingly difficult to acquire language after this period of life.

Fortunately, most states offer early intervention (also known as parent/infant programs) through the local public school or health care systems for parents who have children with hearing loss, up to age 3 years old. The early intervention system will evaluate your child and develop a plan with your family for intervention and language development. This is called an Individualized Family Service Plan (IFSP) and a case manager, or service coordinator, will help you coordinate yours and the professionals’ efforts to create this plan. The amount of therapy or intervention services that a state provides varies, so be sure to ask your case manager or service coordinator about the levels of service you can expect.

Ideally, a good parent/infant program provides an explanation of the various communication options available and training in the communication option selected by the family and based on the advice of the professional team evaluating the child. In the case of spoken language, the program will provide a consultation on acquiring hearing aids and assistive listening devices (such as an FM system), evaluation for a cochlear implant, and parent counseling. The emphasis of these programs is on working with the family, not just the child with hearing loss. Parents are entitled to choose the communication option for their child, so make sure you speak up and emphasize your preference.

Early intervention for a spoken language approach consists primarily of two components: the use of technology to provide auditory stimulation and listening and spoken language therapy – using hearing technology to its fullest potential by teaching the child how to “listen” with the device and to translate what he or she is hearing into spoken language. This includes providing sound through hearing aids or cochlear implants; providing the right kind of therapies for the child; providing counseling and support for parents; and teaching parents how to stimulate their child’s speech and language production. The earlier the infant has access to auditory stimulation, the earlier he or she can take advantage of the benefits of “hearing,” or listening, and learn to talk, thus learning spoken language.

Auditory Stimulation and Hearing Assistive Devices

To ensure your child develops spoken language, he or she must receive consistent access to sound, especially speech. The type of hearing assistive device used for auditory stimulation will depend on the age of the child and the severity of the hearing. It is very important that you speak to your audiologist about the options
available to your child and what technology may best suit his or her needs. Regardless of what device your family chooses, the goal will always be to teach the child how to make the best possible use of hearing and to “learn to listen.”

**Hearing Aids**

One of the first steps will be to fit your child with hearing aids. Infants as young as 2 weeks old can be fitted with hearing aids. Regardless of the range of hearing loss, fitting your baby with hearing aids right away improves your child’s access to sound and maximizes the window of opportunity to acquire language.

Depending on the degree of your child’s hearing loss, hearing aids will enable your baby to hear many sounds, including environmental sounds (a dog barking or a rattle shaking) and the sound of speech. Hearing aids work by boosting the intensity (or loudness) level of sounds at different frequencies (or pitches). Hearing aids can also be programmed to fit the needs of individual hearing patterns, such as boosting intensity level for high frequency sounds that your child may not hear at all and less for low frequency sounds that your child may hear better.

It is important to note that hearing aids do not correct hearing the same way that glasses correct vision. Individual sounds may be somewhat distorted. Hearing aids amplify all sounds, so it may be difficult for your child to distinguish and understand your voice from background noise in loud environments. Regular sessions with an auditory-verbal practitioner will help your child distinguish these sounds.

There are four main types of hearing aids: behind the ear (BTE), in the ear (ITE), in the canal (ITC) and implantable hearing aids. ITE and ITC hearing aids are not appropriate for young children, so BTEs are most frequently recommended. The type of hearing aid is selected following a comprehensive audiological evaluation. Speak to your audiologist about the options available and appropriate technology. Your audiologist will select the most appropriate hearing aid for your child and fine-tune the level of amplification the hearing aid provides based on the degree of hearing loss. The early stages of hearing aid use for an infant or young child typically requires frequent visits with the audiologist as the family observes the child’s response to sound, and appropriate adjustments are made to the device.

Most of the time, two hearing aids are recommended for your child if the hearing loss is in both ears. Research studies on adults have shown that those people who have a hearing loss in both ears, but habitually wear only one aid, lose the ability to recognize speech in the other ear. For infants and young children developing their brain’s auditory pathways, it is critical to provide that auditory stimulation. If your child has a hearing loss in both ears, using two hearings aids prevents auditory deprivation and helps your child to localize sound and to hear better in noisy environments.

Unfortunately, hearing aids are expensive and most insurance companies will not cover the cost. However, several states have recently enacted mandates to force insurance companies to cover, at least partially, the cost of hearing aids for children. Make sure you check your policy before purchase. Ask your audiologist about your purchasing options as well as possible funding sources in your community or hearing aid loaner programs. There are many national organizations that provide funding for hearing aid purchase, including the Let Them Hear Foundation, Starkey Foundation, Lions Clubs and others. AG Bell also provides financial assistance programs for the purchase of hearing aids or other associated costs, such as speech therapy. More information about the different types of hearing aids and funding options.

**Cochlear Implants**

Cochlear implants were developed in the 1970s to help individuals who are profoundly deaf and who gain little or no benefit from hearing aids. When hearing is functioning normally, the inner ear converts sound waves into electrical impulses, which are sent to the brain and recognized as sound. A cochlear implant works in a similar manner – when surgically implanted behind the ear and in the cochlea, the electronic device is able to bypass damaged hearing cells and stimulate the auditory nerve to restore partial hearing. Cochlear implants provide enhanced sound detection and a greater potential for understanding speech.

If your child receives little to no benefit from hearing aids, has a severe-to-profound hearing loss and is at least 12 months old, he or she may be a candidate for a cochlear implant. Although the Food and Drug Administration (FDA) recommends cochlear implant surgery no younger than 12 months, many children as young as 6 months old are having the surgery with few reports
of complications. As with any surgery performed under general anesthesia, there are always risks parents should be aware of. Speak with your audiologist and otolaryngologist about an evaluation as well as the benefits and risks of the surgery before considering the procedure.

Research suggests that a cochlear implant can significantly improve the speech development and listening skills of a child with severe-to-profound hearing loss. However, results are dependent on the individual child’s strengths and needs, the involvement and motivation of the family to help their child succeed, and the quality of the rehabilitation and therapy program after the implant is activated.

Most health insurance companies and managed care organizations provide some level of coverage for cochlear implant services, including the necessary and ongoing programming of the device and aural rehabilitation. Federal health plans, such as Medicare and the Veteran’s Administration provide benefits for all cochlear implant services. Federal law requires that all state Medicaid agencies provide coverage for cochlear implants for children under 21 years old. Parents should check with their insurance companies to determine the level and amount of benefits their child will receive.

There is extensive information available about cochlear implants, the implant process and their benefits. Visit the FDA cochlear implant site and consult your audiologist to determine the best assistive technology device for your child.

**Early Stages of Listening an Spoken Language Development**

The most important step after providing your child with access to sound through hearing aids, cochlear implants or both is to begin listening and spoken language therapy. Although your child is hearing sound, he or she still needs to learn to understand the sounds by learning to listen and then to translate that sound into spoken language. This type of therapy will help your child learn how to hear and speak.

According to the AG Bell Academy for Listening and Spoken Language, this technique facilitates acquisition of spoken language through listening. Parents can expect to actively participate in listening and spoken language skill development. Individuals specializing in auditory-verbal practice help children who are deaf or hard of hearing develop spoken language and literacy primarily through listening. Through guidance, coaching and demonstration, parents become the primary facilitators of their child’s spoken language development. Ultimately, parents and caregivers will gain confidence that their child can have access to a full range of academic, social and occupational choices throughout life.

It is essential that parents establish an environment at home that facilitates listening and spoken language. This includes speaking to your child even when his/her eyes are focused away from you, insuring your child’s hearing devices are working properly, practicing a variety of listening activities with the child as learned during therapy sessions, and including other family members in the therapy at home. Therapy sessions after the child’s hearing devices have been provided are essential to establish speech and language skills.

You and your auditory-verbal practitioner should strive for typical speech and language development. The AG Bell Academy has several resources on what parents should expect at home and in the speech and language development of their child. Please visit the AG Bell Academy for more information about listening and spoken language specialists, therapy and education.

**Conclusion**

There is no better time to celebrate spoken language. The convergence of technology with early identification and intervention and progressive therapies designed to maximize the benefits of that technology have allowed children who are deaf or hard of hearing to have access to spoken language like never before. Parents should carefully consider all the options when deciding on a communication approach for their child and be sure to seek out recognized and highly qualified professionals during the decision making process.

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