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technology

Meeting the challenge

Keeping hearing devices on young children



Children's Hearing Aid Retention Project
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Why do we need hearing aids?

Children learn almost everything by listening. Without using hearing aids all day, every day, your child's learning will likely be significantly delayed by the time they start Kindergarten. They might never catch up!

- The part of the brain that makes sense of sound needs to be developed before hearing can be used to learn. The goal of hearing aids is to make sound louder. This allows the auditory part of the brain to grow. This brain growth has to happen before a child can use hearing to learn to understand words, to talk and to read.
- Your child can't learn words he or she doesn't hear. Typically hearing children hear 46 million words by 4 years old. To learn new words from what people are saying around them, your child's hearing devices need to make speech clear and loud so they hear the quiet speech sounds (like s, f, t) from more than a few feet away.
- Early growth of the brain in the first two years of life cannot be made up later. To develop the auditory part of the brain, a child must hear his or her best ALL DAY long, every day.
- Children need to listen for 20,000 hours before their brains are ready to learn how to read.

When do we need hearing aids?

To be ready to start school like other children, your child needs to wear hearing aids every waking hour from infancy.

- A child needs to use hearing aids all day, every day to develop speech, language and social skills like other children his or her age.
- Children who have used hearing aids all day, every day may have been able to listen to the 20,000 hours needed to be ready to learn to read at the same time as other children his or her age.



- Even children with 'mild' hearing loss may talk and understand more like 3-year-olds when they enter kindergarten if they do not use hearing aids every waking hour.
- The important time for brain growth during the first two years cannot be made up later. Almost all children who enter school with learning delays do not 'catch up' once they go to school.



Babies - 0-12 months

Earmolds must fit properly to keep hearing aids on the child's head. Young babies may need new earmolds every few weeks. Do NOT wait - get the earmolds remade when the hearing aids start to whistle or when the earmolds start to slip out with a light tug. Ask your child's audiologist about Comply™ Soft Wraps to help keep the earmolds in your child's ears while waiting for an appointment to get earmolds remade.

0-3 months

- When a tiny baby has needs, being able to hear mommy coming to pick him up develops a sense of trust and security. Hearing aids help with this security.
- Babies are not actively exploring with their hands under 6 months of age. Although a hearing aid may be knocked off, the baby will not intentionally remove the hearing aids.
- As long as hearing aid battery door locks are in place it is fine for him to keep his hearing aids on, even during naps. Although he could safely wear them at night too, moisture buildup in the earmold tube can be a problem as even a small drop of moisture can block sound from going into the ear. This moisture problem can be remedied by using a dry aid kit.

- Keep a dry aid kit (the "hearing aid house") in a place you can always find it, such as next to the diaper changing table so you always know where the hearing aids are and they can be put on and off easily.

4-6 months

- At this age, the infant may be turning to try to locate sounds (i.e., Dad's voice from the side while Mom is holding him).
- At about 4 months, typically developing babies begin to pick up objects and put them in their mouths. Locking battery doors are critical as batteries are poisonous if swallowed.
- A hearing aid retention accessory can help to prevent the child from getting the hearing aids to her mouth if she knocks one out of her ear. The retention accessory should have no sharp edges that could hurt the baby, and should also protect against moisture as food can be spread to many places as the baby learns how to eat solid food.



About 9 months

Your baby may be enjoying his new ability to yank, pull, grab and push.

- He may grab a hat off his head or work very hard to take his socks or bib off. He may also start to enjoy pulling off his hearing aid (Look what I can do!).
- If he pulls off his hearing aids smile, calmly say "Hearing aids on! Baby can hear mommy now!" and then distract him with another on/off, yank to/fro, peek-a-boo kind of activity.
- He is not intentionally pulling off his hearing aid - he is just practicing making changes to his immediate world. Avoid responding with no-no or uh-oh as his intention is to practice the 'taking off' skill and not to remove the aids willfully.

About 12 months

Most children are practicing how to walk and trying to talk - you are waiting for their first step and their first word!

- It may seem like your child is getting into everything. It isn't unusual for babies of this age to go through a 'yanking off the hearing aids' stage.
- Temperament plays a big role during this period and throughout toddlerhood. Babies who are more laid back, have regular schedules and are easy to soothe when they are unhappy. These children are easier to train to leave the hearing aids alone than a child who is very active, sensitive to change and gets upset easily. Soothe your baby's upsets but do not let the hearing aids become the focus of how he can be sure to get your attention!
- As your baby develops the motor skills to remove the hearing aids and becomes interested in them, it is important for you to teach him that only adults can take them off - not baby. Hearing aids on all waking hours (except for water-play) is necessary for brain, language and social development.

Did you know?

Babies listen for about a year before they say their first word. A baby who wears hearing aids for only 2 hours a day may take 3 years to say his first word. Frustrations with not being able to communicate effectively can result in behavior and social problems.

Toddlers - 12-24 months

12-18 months During the second year, the exploring toddler learns to do many things independent of his parents (“Me do!”).

- It may seem like your child is getting into everything. It isn't unusual for toddlers to go through a 'yanking off the hearing aids' stage. Your baby may be going through a stage where he is learning to control his environment and is 'testing the waters' in many ways.
- It is an especially important time to consider what the baby is getting out of taking off the hearing aids. Is he learning a new skill? Is he trying to get your attention? Is he trying to get you to do the fun thing you did last time he took out his hearing aid?
- Whatever you choose to do in response to his taking off his hearing aid, be calm and try to control your facial expression so that it is neutral. You don't want your baby to learn to associate the hearing aids with your anger, as this may make him want to avoid them.

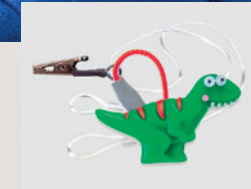
- Temperament plays a big role throughout toddlerhood. Babies who are more laid back, have regular schedules and are easy to soothe from being unhappy are easier to train to leave the hearing aids alone as compared to a child who is very active, sensitive to changes and easily upset. Soothe your baby's upsets but do not let the hearing aids become the focus of how he can be sure to get your attention! Wearing the aids is non-negotiable.



“
Be persistent. Toddlers must learn that wearing hearing aids is non-negotiable.
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About 20 months many children are learning the skill of undressing.

- The child is not willfully removing the hearing aids because he does not want to use them. He is practicing the skill of removing everything on his body. This stage will take extra time and patience.
 - Once he accomplishes learning to undress to the best of his ability, praise him and then lovingly put his hearing aids back on and dress him. The novelty of his newfound undressing ability will soon wear off, only to be replaced by greater toddler independence.
- Non-negotiable:** Be persistent. Toddlers must learn that wearing hearing aids is non-negotiable.
- Unless you suspect that he is in pain (i.e., ear infection, broken hearing aid), ALWAYS replace them if they have been pulled out. The behavior will eventually stop.



- You may need to wait for a temper tantrum to pass. Wait quietly with a neutral expression on your face, holding the hearing aids. When he tires, smile, put on the hearing aids and distract him into what comes next.
- During this period of ramped up activity, the hearing aid retention accessories you have been using may not be enough to keep him from pulling out a hearing aid. Many families use different retention strategies or use two strategies together.
- Sticky tape plus the hearing aid retention accessory or wearing a cap for a few weeks may help both of you get through this stage.



Safe-n-Sound

Preschoolers - 2-5 Years

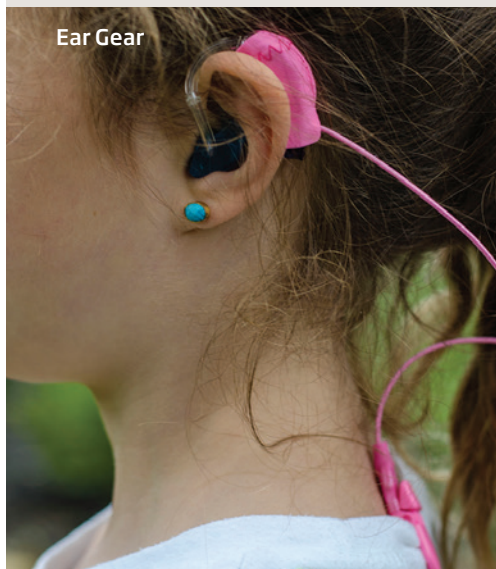
The terrible twos

Two-year-olds may resist the 'only mommy do it' approach and demonstrate their independence by taking off their hearing aids.

- This continues to be non-negotiable – continue to be persistent.
- Only adults take off the hearing aids, however, at age 2 the parent can work with the child to change from independently removing his hearing aids to learning to ask for help (i.e., “Ears off please”).
- This provides the opportunity to ask why he wants the hearing aids removed.
- Is it too noisy? If so, you can model moving away from the noise.
- Is he tired? If so he can help you put the hearing aids in the dry aid kit (“hearing aid house”) before his nap.
- Does he want your attention? Take a minute to help him begin to learn how to put his own hearing aids on (he should be able to do this by himself by age 3). Offer to read a book to him, but of course he will need to have his hearing aids on to hear the story!

Your child missing out on auditory stimulation IS harmful to his brain development.

- “Taking a break” from wearing hearing aids for an hour, morning, day or weekend, is just setting your child further behind in developing a brain that will process speech and sounds effectively.
- Unless you suspect that he is in pain, ALWAYS make sure the hearing aids are put back in his or her ears as soon as possible.
- Listening breaks from the hearing aids should occur no longer than it would take the child to eat a cookie.
- Responding to hearing aid removal during tantrums is a challenge. The consistent message in your response should be that the hearing aids will go back on. His tantrum behavior is not ‘rewarded’ by his not wearing the hearing aids.



Ear Gear

The curious threes

Three-year-olds like to know how things work.

- Left alone, your child may take off a hearing aid and take it apart to have a close look at each of the parts.
- As you perform the listening check each morning, involve your three-year-old, using the names for each of the parts and describing how they work.
- Emphasize that it is fun to know about how the hearing aids work, but it is important to keep the hearing aids on her ears so they can work to help her hear what people say.
- By this time she should know that hearing aids are meant to be kept on and that she is not allowed to take them off. Treat her doing so as you would any other poor behavior choice so that she clearly knows the rule stands in every situation.



Ear Gear

The sensitive fours and fabulous fives

At 4-5 years old, children begin learning the attitudes of their age peers and want their approval.

- It usually works well if the children in your child's preschool or kindergarten class have a learning opportunity (i.e., heard a story about hearing loss/hearing aids). They will then better understand what hearing aids do, will not ask your child as many questions and will be more likely to view the hearing aids positively.

Did you know?

Children learn most of the 'social rules' of getting along with others between 2-5 years old. Children who can understand speech and talk like their age peers are more likely to be accepted and fit in.

Hearing device retention accessory information

#1 Rated - Ear Gear

Spandex sleeve slips over hearing device. Has stretch cord and plastic locking clip.

PROS: Stretchy cord, allows for full range of head motion. Spandex sleeve protects from mess/damage and from hearing aids being swallowed by infants. Plastic clip to clothing has no sharp edges, is hypoallergenic and locks to make it extremely difficult for a child to remove. Spandex sleeve increases comfort of device wear; prevents and assists in healing from chafing; also diminishes wind noise. Comes in many different colors to increase child's interest and pride in wearing hearing aids. Use with hearing aids, cochlear implants and bone-anchored hearing systems for individuals of all ages. Models can attach to one or two hearing devices.

CONS: Some difficulty installing, because earmold must be removed and then reattached.

www.gearforears.com



#2 Rated - Caps

Caps cover hearing devices securing them from busy or yanking fingers.

PROS: Effective at discouraging toddlers from yanking hearing aids off. Washable and durable. Hanna Andersson and Hearing Henry caps are cotton and have ties long enough to cross in front of neck and tie behind. Silkawear caps have mesh side panels and fasten securely under chin via Velcro. Discontinue after toddler 'yanking' phase subsides so child can practice putting on hearing aids (should be independently putting hearing aids on by age 3). Use with hearing aids, cochlear implants and bone-anchored hearing systems. Come in various colors.

CONS: Warm for summer or southern climates.

www.silkawear.com
www.hannaandersson.com
www.hearinghenry.com



#3 Rated - Safe-N-Sound

Plastic loop slips over hearing device. Has poly cotton cord and metal alligator clip.

PROS: Easy to Install. One size fits all hearing aid and cochlear implant models. Flexible cotton cord comes in many different colors to increase child's interest and pride in wearing hearing aids. Option with barrette can be effective to discourage young child yanking out the hearing aid, while not causing discomfort when removed by parent. Used by children of all ages. Models can attach to one or two hearing devices or be used with eyeglasses. Works with hearing aids, cochlear implants, and bone-anchored hearing systems.

CONS: Nonstretch cord. One size loop may not tightly fit all hearing instruments. The alligator clip has nickel content, and can cause allergic reactions.

www.getsafesound.com



#4 Rated - Wig/Toupee Tape

Tape specifically made for use on skin. Attaches to both hearing device and skin. Must replace tape on a regular basis to maintain security.

PROS: Good short-term strategy. Tape does not require much of a 'tug' to remove hearing aid, but is helpful in preventing dislodging when child is just starting to use his hands to explore or when the device is large/heavy for the child's ear. Used primarily when child is young or very active. Use on all hearing devices.

CONS: The tape discourages child from pulling the hearing aid off due to possible discomfort when removed - by child or by parent. Child could learn to shy away from hearing aid because it is not comfortable when it is removed. If used frequently, tape can be expensive over time.



#5 Rated - Oto/Critter Clips

Plastic loop security system, with thin poly cotton cord and metal alligator type clip. Models that attach to one or two hearing devices.

PROS: Low cost, easy to install solution. One size fits all hearing aid models and implants. Cords come in many colors, and some models are available with cute animals on the face of the clip - encouraging small children to wear their aids. Used by children of all ages wearing hearing aids, cochlear implants or bone-anchored hearing systems.

CONS: Breaks easily / not very durable. Cute animals can come off and be swallowed. Security level varies due to one-size fitting for all hearing instruments. The Alligator clip has sharp teeth and may pinch child's skin. Clip has nickel content, and can cause allergic reactions.

www.westone.com



Ratings based on the results of the Children's Hearing Aid Retention Survey completed by 286 parents (Anderson & Madell, 2012).



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