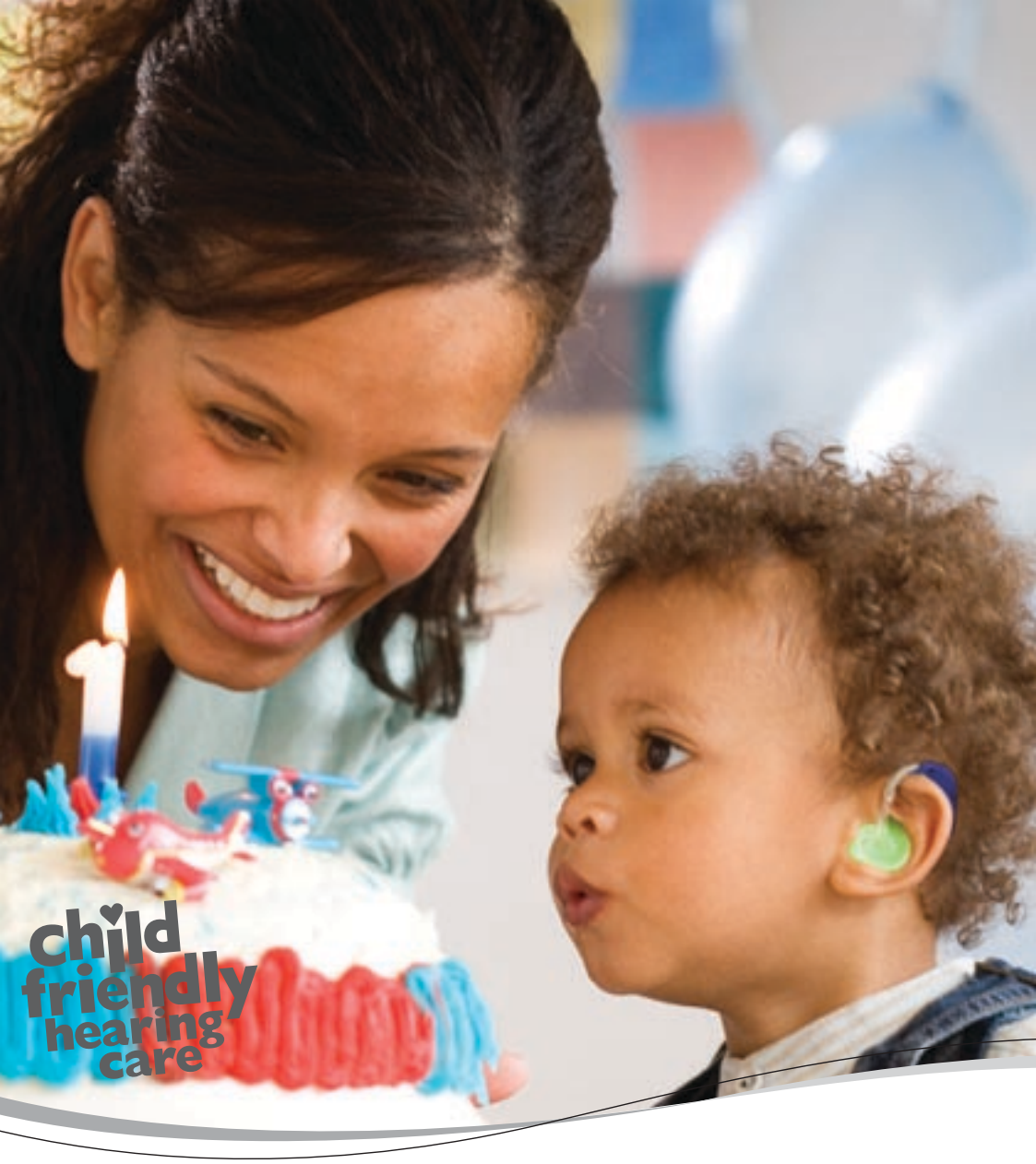

Family Notebook

A support guide for families with children who use hearing instruments

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PEDIATRICS

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This Family Notebook belongs to:

Child's name: _____

Parents' names: _____

Hearing care provider's name: _____

Phone number: _____

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Introduction

The early years of a child's life are both magical and challenging, all the more so if a child has a hearing loss.

That is why Oticon has written this practical guide for parents and other adults involved in the care and education of the child, to assist them in helping the child adjust successfully to their new, and perhaps first, hearing instruments. Children can't always express themselves clearly, and they often do not have all the skills needed to tell us exactly how well, or poorly, a hearing instrument performs for them.

For this reason, your hearing care provider needs your help after your child has been fitted with hearing instruments. Your observations and comments in this booklet will provide feedback to them, help them adjust your child's hearing instruments if needed, and ensure that your child is adjusting well to them.

Your child's best helper

You know your child best. Your rapport with your child will let you know how he/she feels about or reacts to new situations, like getting new hearing instruments.

To ensure that the hearing instruments are correctly tuned, you need to tell your hearing care provider how your child responds to a few specific situations after he/she has been fitted.

The Family Notebook tells you which situations need your special attention and how to rate your child's response. Next time you meet you'll talk about your observations and decide if the hearing instruments need adjustment.

A helping hand, not a test

The Family Notebook is not a test. It is made to help your child and you adjust successfully to the hearing instruments, and help your hearing care provider tune the hearing instruments to your child's needs.

The Family Notebook is intended for children in their early developmental years, from children uttering their first sounds to curious school children exploring the universe. So you may find some questions more relevant than others. Don't hesitate to ask your hearing care provider if you are in doubt.

How to Use the Family Notebook

Read, watch, listen and make notes

How you use this notebook may vary depending on whether your child is receiving his or her first hearing instruments, or replacing old ones with new models. Even if your child is an 'experienced' hearing instrument user, the new aids probably have different features and functions, and your observations are still valuable.

We encourage you to read through the whole notebook to familiarize yourself with the observations we would like you to make. In the beginning, just watch how your child acts with his/her new hearing instruments. Talk about your observations with your spouse or other adults who know your child - such as a teacher or other caregiver. And remember - relax. Things may change as your child reacts to and learns his/her new world of hearing. That's why the notebook is divided into three sections to cover the first few weeks and months of wearing and adapting to the hearing instruments.

Section 1, Getting started and initial adjustment.

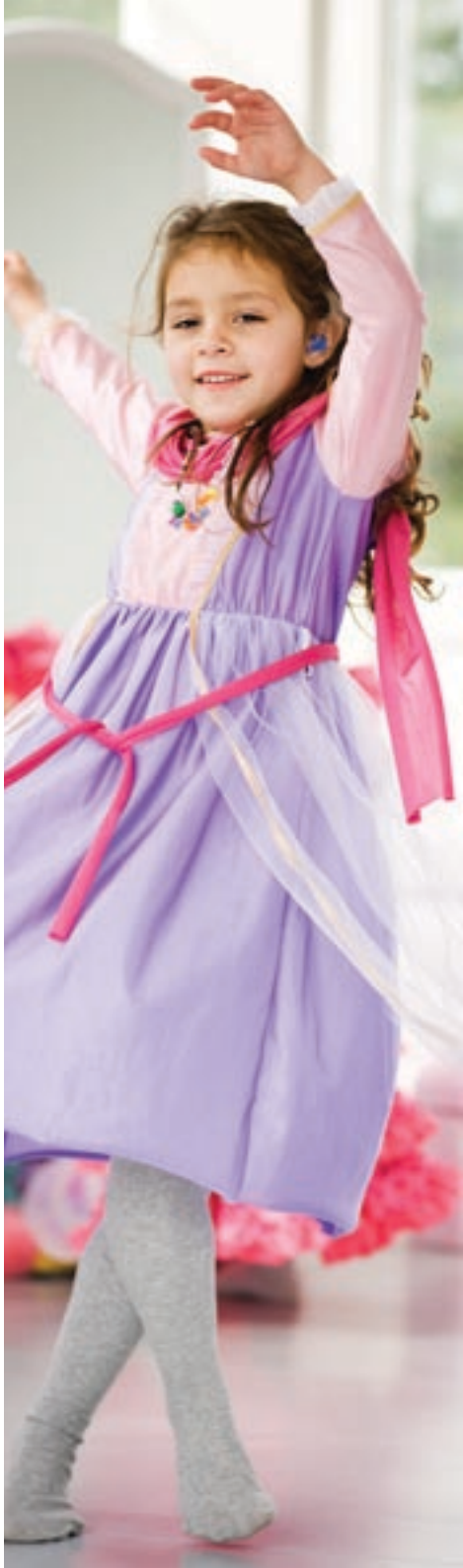
Your basic initial observations of your child's comfort and acceptance of wearing the new hearing instruments are critical at this stage. In addition, we'd like you to get accustomed to knowing the basic care and checking the function of the hearing instruments. In most cases, these observations should be completed within the first two weeks of getting the new hearing instruments.

Section 2, Experiencing sounds

Our goal is to give your child the amplification best suited for him/her. To do this, we need input from you about how your child reacts to everyday sounds around him/her, loud and soft, high and low pitched.

Section 3, Changes in speech and language

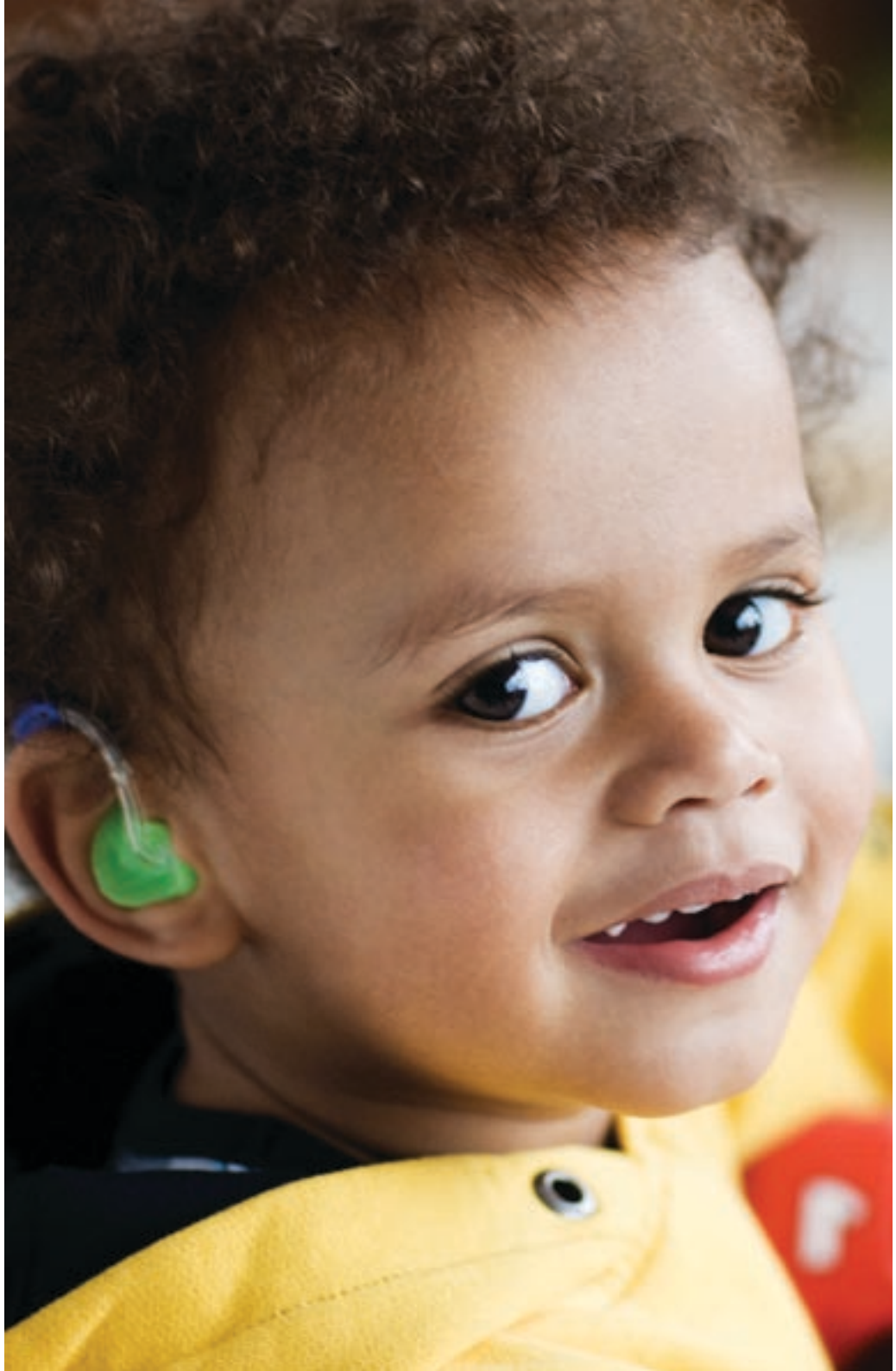
After your child has adjusted to wearing the hearing instruments, and is wearing them full-time, you may observe changes in the amount, quality and clarity of sounds or words he/she produces; there may be changes in his/her understanding of spoken language as well. Your child's ability to produce and perceive certain speech sounds may depend on the degree of your child's hearing loss, age of identification of the loss and how the hearing instruments are adjusted.



There is room for notes on the topics addressed in each of the three sections. In addition, feel free to write down any questions you may have.
Please remember that you, not your child, should answer the questions. We want your observations of your child.

Write questions and comments here

Time will pass quickly before you meet your hearing care provider next. So if there is anything you'd like to discuss, write it here as a reminder.



1. Getting Started and Initial Adjustment

The more you know about how to care for your child's hearing instruments, the more he/she will benefit. You will most probably have to take care of the aids at first. As your child grows older, he/she will increasingly learn more of the tasks.

Since your child may not always tell you if the aids aren't working, we recommend you follow this simple daily routine:

- Listen to the hearing instruments, to make sure they are working properly. An easy Listening Check procedure is provided on pages 15-16.
- Check that the earmold and tubing are clean and unclogged.
- Open the battery door at night to air out the hearing instruments.

Whistling

Hearing instruments whistle occasionally. This is called acoustical feedback and occurs when the amplified sound from the hearing instrument leaks out of the ear to reach the hearing aid microphone. It can happen for a number of reasons, for instance when you hold your child very closely. Don't stop hugging, just change the position of your child's head - or maybe you'll have a special 'whistle-hug' to share between just the two of you! Wearing hats or bicycle helmets may also cause occasional whistling.

Note: Hearing instruments should not whistle much during normal usage. If they do, contact your hearing care provider as soon as possible so the problem can be solved. Also see the Troubleshooting Guide on page 38.

How to Care for the Hearing instruments

1.a Do you know how to:	Yes	No
Put the hearing instruments and earmolds on your child?	☐	☐
Differentiate between right and left hearing instruments?	☐	☐
Differentiate between right and left earmolds?	☐	☐
Turn the hearing instruments on and off?	☐	☐
Change the batteries?	☐	☐
Check the batteries?	☐	☐
Clean the hearing instruments?	☐	☐
Check and clean the earmolds?	☐	☐
Re-attach cleaned earmolds back onto the hearing instruments?	☐	☐
Check the tube between the hearing instrument and the earmold?	☐	☐
Adjust the volume controls (if there are any)?	☐	☐
Change the program or switch to telecoil, and any other special uses (e.g. FM devices, Direct Audio Input)?	☐	☐
If provided, do you know how to use the clean and dry kit?	☐	☐

1.b Do the hearing instruments often whistle when your child is wearing them?

- ☐ Yes, the left hearing instrument often whistles
- ☐ Yes, the right hearing instrument often whistles
- ☐ No

1.c Does your child detect or react when the aids whistle?

☐ Yes ☐ No

1.d What do you do to reduce the whistling when the aids whistle for more than a few seconds?

√ Spot Check

I am comfortable with my ability to handle the hearing instruments.

Strongly agree	Agree	Neutral	Disagree	Strongly disagree
☐	☐	☐	☐	☐

Put yourself in your child's place. You're a kid and you have to start wearing some kind of "things" in your ears. Then, imagine suddenly hearing sounds that you've never heard before, or hearing sounds you used to hear differently. The experience can be exciting, confusing, and even a bit tiring.

Willingness to Wear Hearing instruments

Remember, this is very new to your child and one way to gain acceptance is to assure that your child's first experience with hearing instruments is positive. For instance, make sure that the first sounds your child hears with the new hearing instruments are familiar, comfortable sounds such as family voices and music.

One of the subjects that will be discussed at your follow-up appointments will be how often your child wears the aids. Age and the degree of your child's hearing loss are often factors in how easily and quickly your child adjusts to wearing his/her hearing instruments.

If your child does not want to wear the hearing instruments

Sometimes a child may not want to wear hearing instruments. There are many reasons for this.

The most common ones are:

- The sounds are unfamiliar and it may take time to learn to listen to them.
- Your child doesn't like the feeling of the earmold inside the ear canal.
- Your child feels embarrassed or self-conscious about wearing hearing instruments.
- The earmolds are tight or uncomfortable.
- Sounds may be too loud.
- The hearing instruments aren't providing sufficient amplification.
- The hearing instruments whistle a lot.

The following questions will help your hearing care provider identify whether your child is having problems adjusting to the hearing instruments. This is quite common in the beginning.

1.e How long does your child wear the hearing instruments during the day?

- ☐ All day
- ☐ 1/2 day
- ☐ A few hours daily
- ☐ Not at all

1.f Does your child wear the hearing instruments in these situations:	**Yes**	**No**
At home when you and your child are talking together?	☐	☐
At home when your child is playing on his own?	☐	☐
In day-care/play group/school?	☐	☐

1.g Does your child ever take off the hearing instruments during a day?

☐ Yes ☐ No

1.h If Yes to 1g, when does he/she take off the hearing instruments?

- ☐ Every time the hearing instruments are put on
- ☐ After one or two hours
- ☐ When sounds are loud or sharp, e.g. when a door slams, or when dishes and cutlery clatter
- ☐ When in a crowd or when many people speak at the same time
- ☐ In other situations, such as:

√ Spot Check

I am happy with my child's acceptance of the hearing instruments.

Strongly agree	Agree	Neutral	Disagree	Strongly disagree
☐	☐	☐	☐	☐

You can also use the "Hearing instrument Response Log" found on page 36-37 of this booklet, when observing your child's overall usage of new hearing instruments.

How to perform a listening check of your child's hearing instruments

You'll need a stetoclip or listening tube, which allows you to listen to the hearing instruments without putting them in your ear. Ask your hearing care provider for a 'damped' stetoclip or listening tube if your child's aids are powerful to prevent the loud amplification from being uncomfortable to your ears.

1. Turn the hearing instrument off by opening the battery door.

2. Place the listening tube securely in your ear canal.

3a. Attach the listening tube to the earmold of the hearing instrument.

3b. If you are listening to a RITE- style hearing instrument without mold, remove the dome and attach the listening tube directly to the sound outlet.

4. Turn the hearing instrument on by closing the battery door. You should hear a start-up jingle unless it has been turned off by your hearing care provide.

5. Hold the hearing instrument out in front of you but not too close to your mouth. Listen for the clarity of these sounds as you say them aloud: “AH” as in father; “EE” as in bee; “OO” as in moon; “SH” as in shoe; “SSS” as in sun; and “MMM”.

6a. If your child uses a telecoil program you can also perform a listening check of this. Turn the hearing instrument to the “MT” or “T” program.

6b. Next, hold the hearing instrument near a television set that is turned on. You should hear a buzzing noise, which confirms that the telecoil is working.

If you suspect a problem with the hearing instrument, review the Troubleshooting Guide on page 38, or contact your hearing care provider.

Notes

Section 2: Experiencing Sounds

Sounds perform many useful purposes. They:

- Inform (the doorbell or the telephone ringing).
- Alert us to danger (horns and sirens).
- Create atmosphere or help us perceive space and depth (people talking around a table, birds singing, running water, etc.).
- Help us communicate.

Now that your child is wearing his/her hearing instruments on a regular basis, you may start observing his/her auditory behavior, that is, listening and responding to sounds around him/her. To what degree these changes occur will depend on the child's age, degree of hearing loss, previous hearing instrument use (if any), and any other short-term or ongoing conditions (e.g., recurring middle ear infections, extended illnesses, learning delays).

With your help your child may explore new sounds heard with their new hearing instruments. He or she will probably hear sounds that are loud, like a low flying jet or a vacuum cleaner. Other sounds may be so soft that your child may not hear them at all, even with the best of aids.

Your child may react differently to sounds that are low, mid and high pitched. Some ranges of pitches (frequencies) may be easier to hear than others, depending on your child's hearing loss. For example, low-pitch sounds such as a vacuum cleaner or traffic may be easier to hear compared to high-pitched sounds such as birds singing or a violin playing.

At first, young children may not overtly react to the new sounds from the new hearing instruments. The more they wear their hearing instruments and listen, the more benefit they'll get from them. It's a matter of adjustment and learning to listen.

Your hearing care provider's challenge is to give your child the amplification best suited for him/her. To do this, he/she needs input from you about how your child reacts to everyday sounds:
A crowd of talking people. A busy street full of traffic. Clattering dishes. Birds chirping in the trees. Children laughing. Cash registers in the grocery store. There are a variety of sounds, soft, moderate, and even loud, all around us.

2.a Does your child react to loud sounds?

- ☐ Yes, he/she reacts to: _____
- ☐ No

2.b If Yes in 2a, how does your child react to loud sounds, does he/she?

- ☐ Become startled
- ☐ Cover his/her ears
- ☐ Jump up
- ☐ Make faces
- ☐ Turn his/her head to look for the sound
- ☐ Turn his/her head in the direction of the sound source

Please describe other reactions, not listed here: _____

_____

_____

_____

2.c Sounds provide us with a lot of valuable information (e.g. the doorbell ringing, the sound of footsteps when someone is entering the room, etc.). Does your child react to such sounds?

- ☐ Yes, he/she reacts to: _____
- ☐ No

2.d When you bring softer sounds to your child's attention (water running, a telephone ringing in the next room, music at a moderate level), can your child recognize that these sounds are present?

- ☐ Yes (example) _____
- ☐ No

2.e When a mid-high pitch sound is present, like a high pitch bell, a teapot whistling, clattering cutlery, or a high-pitched musical sound like a violin, does your child react to these kinds of sounds?

- ☐ Yes, she/he reacts to: _____
- ☐ No

Please comment on your above answers:

√ Spot Check

I am happy with my child's reaction to sounds.

Strongly agree	Agree	Neutral	Disagree	Strongly disagree
☐	☐	☐	☐	☐

The Listening Bubble Effect

Hearing is a sense that involves not only the loudness and pitch of sounds, but also distance or range. A child with a hearing loss will have a reduced hearing range, or a smaller listening bubble, than a child with normal hearing. When you are in another room, you are using your hearing range, or have a listening bubble that includes hearing sounds of that loudness, frequency and distance. People with hearing loss have smaller listening bubbles.

How well young children with hearing loss function varies between individuals and typically shows some improvement with more listening experience. Hearing instruments will improve the size of the child's listening bubble. By using amplification during all waking hours, auditory skills will usually improve over time, including how well a child is able to use sound for speech and verbal language.

The "Listening Bubble Effect",
by Karen L. Anderson, Ph.D., 2002.

This photo shows a situation where the adult is clearly within the young child's listening range - increasing attention and comprehension, as well as providing important visual cues.

In this photo, the adult may be out of the child's listening range. Be aware that other sounds in the environment may also compete with the child's awareness and the perceived loudness and clarity of the speaker's voice.

The size of a child's listening bubble is based on his or her degree of hearing loss and consistent, daily use of amplification. Get into your child's hearing range!

Playing and Communicating

Is it easier to communicate with your child after getting the new hearing instruments? A good time to evaluate your child's ability to communicate is when playing or doing some other activity together.

Communicating with children often involves getting and keeping their attention as well as turn-taking. For older children, communication is more sophisticated. They must focus on, and understand, what you are telling them in order to answer your questions.

When trying to communicate with your child it's a good idea to face him/her and have eye contact. The child receives information not only from the spoken word, but from your lips, eyes, facial expressions and body language as well.

It is important to get the child's attention and make him/her ready to listen before you speak. This can be done by calling out his/her name.

Sound advice for communicating with children

Distance and background noise make it more difficult for children to hear and understand, even for children with normal hearing. Therefore, when you communicate with your child try to remember some basic rules, which will help your child understand and develop speech better.

- Always face your child when speaking, preferably within 3-6 feet. Keep your face in view. If you stand where your face is well lit, it makes it easier to see your facial expressions and read your lips.
- Try not to talk while chewing food. This makes it difficult to understand what you are saying, and almost impossible for others to read your lips.
- Don't lean with your face on your hand, or sit behind a newspaper when talking, since this makes the transmission of sound as well as lip-reading difficult.
- Try to minimize the distance between you and your child when speaking. Consider the size of the "Listening Bubble" or range of hearing for ideal reception of speech sounds by your child.
- Try to avoid or reduce background noise when talking to your child as it can be difficult for him/her to discriminate your voice from the noise. Turn off the television and close any open windows to muffle any noise from traffic. Either move closer to make your voice louder than the background noise, or try to find somewhere quieter to talk.
- Speak clearly, at a normal pace. Ensure that you have your child's attention and avoid a monotone voice but vary your pitch while speaking. If your child does not understand you, don't raise your voice. This may make your voice uncomfortable, distorted, or even painful. Instead, try getting closer to your child, rephrasing your words or speaking more slowly.

For more information please also refer to Oticon's booklet, "Good Communication Habits."

Make sure the volume controls (if there are any) on your child's hearing instruments are set to the recommended level and the hearing instruments are in working order.

2.f When playing with your child, is it easier to get his/her attention, for example when you call his/her by name?

☐ Yes ☐ No

2.g When you play together, is it easier to communicate with your child?

☐ Yes ☐ No

2.h When your child is alone, absorbed in a play activity, and doesn't see you, it may be more difficult to get his/her attention. In this situation has it now become easier to get his/her attention when you, for instance, call his/her name?

☐ Yes ☐ No

2.i When your child is playing with others, does he/she seem more alert and responsive to their voices?

☐ Yes ☐ No

2.j Have you noticed other changes in your child's behavior in play and/or communication situations?

☐ Yes ☐ No

Please comment on your above answers:

√ Spot Check

I am happy with the way my child is communicating.

Strongly agree	Agree	Neutral	Disagree	Strongly disagree
☐	☐	☐	☐	☐

Notes

Section 3: Changes in Speech and Language

Children develop differently. Not all children acquire language at the same time or rate. Children's language develops, largely, as a result of hearing and stimulation. They listen to their parents, and learn their words. They also adjust their own pronunciation by listening to their own voice and comparing it to what they hear from others.

After the hearing instrument fitting, your child may find that his/her voice sounds different, and he/she may react to this change. The quality of some children's voices or babbling and which sounds they have might change with new hearing instruments. Others talk more because they find it amusing to experiment with their "new voice".

Another aspect of developing language is understanding what is said. The degree of a child's loss, age at which the hearing loss occurred, age when first using amplification and intervention has a strong impact on the degree of the child's progress in developing speech and language.

Remember that changes in speech production and understanding occur over a period of time.Your child's speech/language therapist can advise you of what changes and progress you can expect with your child.

It is important to find out if your child can use these new, amplified speech sounds, including the sounds of their own voice. Your child's reaction gives your hearing care provider important information regarding the adjustment of the hearing instruments.

3.a Is there any change in how much your child speaks (or babbles) now that he/she has been fitted with the new hearing instruments?

- ☐ Yes, my child speaks more than before
- ☐ Yes, my child speaks less than before
- ☐ No difference

3.b How is the loudness of your child's speech?

- ☐ It seems like my child speaks softer than before
- ☐ It seems like my child speaks at an appropriate level
- ☐ My child often speaks more loudly or shouts

3.c Have you noticed any change in the kind of sounds that your child is using when he/she vocalizes (babbles or talks)?

- ☐ Yes (examples) _____
- ☐ No

3.d Have you noticed any changes in the clarity or accuracy of the speech sounds that your child produces or imitates? For example, are some vowels or consonants more clear?

- ☐ Yes (examples) _____
- ☐ No

3.e Is your child better able to recognize speech sounds or words that are already familiar to them?

- ☐ Yes (examples) _____
- ☐ No

3.f Does your child seem more comfortable in following your speech/conversation?

- ☐ Yes
- ☐ No

3.g Does your child seem more comfortable in following the speech/conversation of friends or other caregivers?

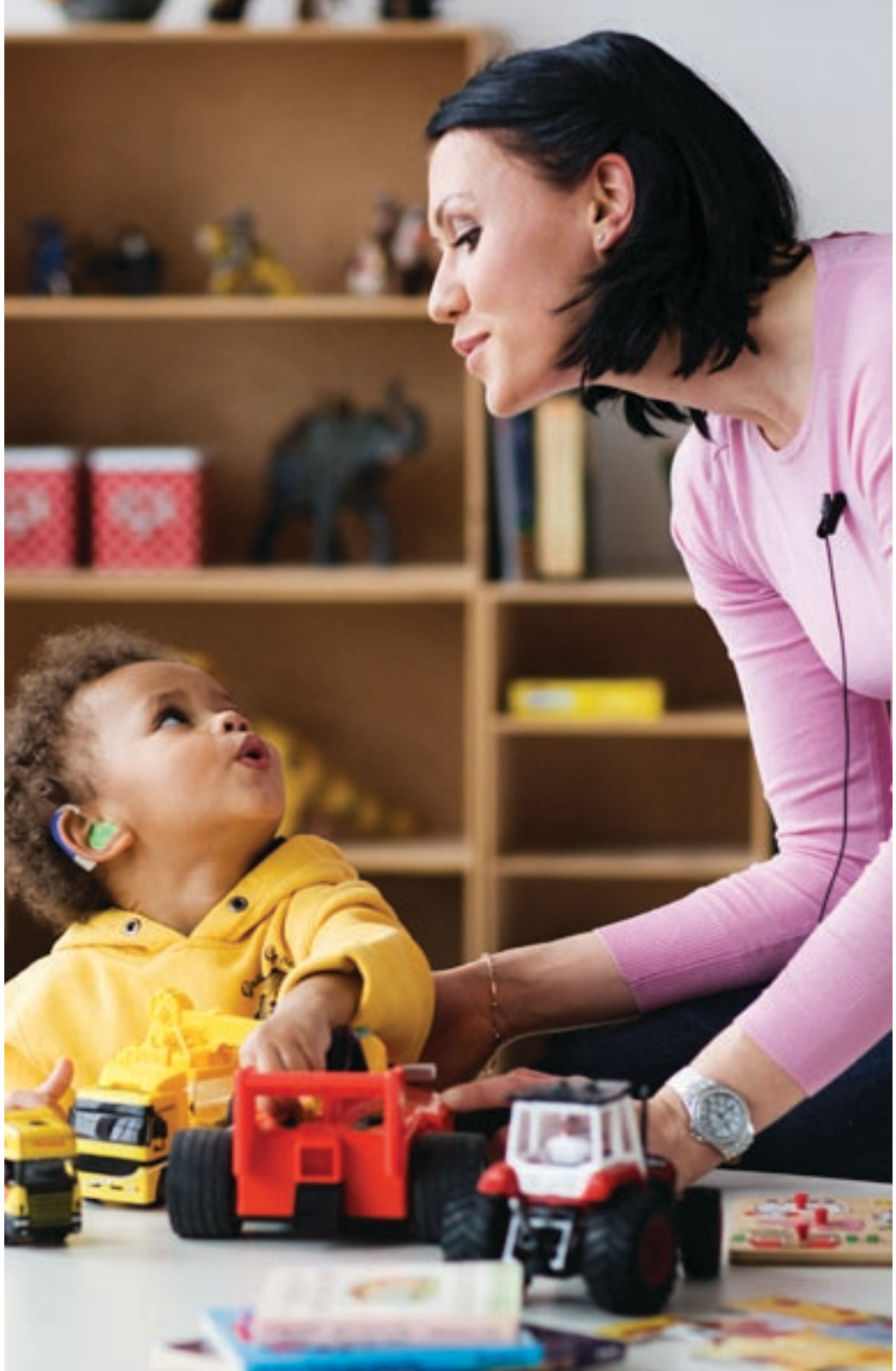
- ☐ Yes
- ☐ No
- ☐ Don't know

Please comment on your above answers:

√ Spot Check

I am happy with the way my child vocalizes.

Strongly agree	Agree	Neutral	Disagree	Strongly disagree
☐	☐	☐	☐	☐



For other Caregivers

Your child will probably be very active outside the home, at a day-care centre, playgroup, school or with friends and relatives.

Those responsible for caring for your child away from home can give you valuable information about your child. In many cases they may be willing to give special attention to how your child is reacting to the new hearing instruments.

Ask them if they could help you by answering a few questions. It's a small favor to ask, but will be a big help to your hearing care provider in evaluating the performance of the hearing instruments.

Name of person observing child:

_____

Relationship to the child:

_____

Hours spent per week with the child:

_____

3.h Does the child willingly wear the hearing instruments?

☐ Yes ☐ No

3.i Are there certain times or situations when the child prefers the aids off or out of their ears?

☐ Yes _____

☐ No

3.j Is it easier to get the child's attention, i.e. by calling his/her name, with the new hearing instruments?

☐ Yes _____

☐ No

3.k When you have the child's attention (for instance, when playing together), has it become easier to communicate with him/her?

☐ Yes ☐ No

3.l Are there any particular sounds in the environment that the child now reacts to with the new hearing instruments?

☐ Yes

☐ No

3.m How is the loudness of the child's speech?

☐ It seems like the child speaks softer than before

☐ It seems like the child speaks at a more appropriate level

☐ The child often speaks more loudly or shouts.

3.n Have you noticed any new sounds or words the child is using when babbling or talking?

☐ Yes

☐ No

3.o Have you noticed any change in the child's behavior in play situations and/or when communicating with him/her?

☐ Yes

☐ No

Notes

Hearing instrument Use and Response Log

(M. Peters, C. Borders & G. Snell; Vanderbilt Bill Wilkerson Center, Nashville, TN, USA)

The form below is designed to help parents and caregivers observe the child's initial hearing instrument experiences. This is especially useful with young children being fitted with hearing instruments for the very first time.

Your observations of your child's behavior and responses to different sounds in the home environment are very important for the audiologist or early intervention specialist. They can use this information to help determine how well your child is adjusting to hearing amplified sounds; the benefit and approriateness of the amplification; and the need for any fine tuning.

Day/Date	Time (e.g., 4-5 pm)	Type of Environmental or Other Sound (e.g., vacuum cleaner; kitchen sounds; music; listening to a story; watching TV/video; noisy toy; mealtime conversation; traffic)	Observed Response (e.g., calming; excited; fearful; distressed; crying; awareness; turned or moved to sound; change in facial expression; touched ears; change in activity level; pleasure)	Comments/Problems (e.g., removed hearing aids; covered ears; whistling; child was tired)

Day/Date	Time (e.g., 4-5 pm)	Type of Environmental or Other Sound (e.g., vacuum cleaner; kitchen sounds; music; listening to a story; watching TV/video; noisy toy; mealtime conversation; traffic)	Observed Response (e.g., calming; excited; fearful; distressed; crying; awareness; turned or moved to sound; change in facial expression; touched ears; change in activity level; pleasure)	Comments/Problems (e.g., removed hearing aids; covered ears; whistling; child was tired)

Hearing instrument Troubleshooting Guide

Problem	Reason	Solution
No Sound	Dead battery	Change battery
No Sound or only buzzing	Switch in wrong position	Switch to M-position
	Clogged sound channel	Clean earmold
	Volume is turned down*	Turn up volume control
Whistling	Volume too high*	Reduce volume (temporary solution) and contact your hearing care provider
	Clogged sound channel	Clean earmold
	Ear wax in the ear canal	Contact your hearing care provider
	Stiff earmold tubing	Contact your hearing care provider to change it
	Earmold is too loose	Contact your hearing care provider
	Hearing instrument/earmold not correctly placed in the ear canal	Re-insert hearing instrument/ earmold
Poor sound quality	Microphone dysfunction	Contact your hearing care provider

Hearing instruments should not whistle too much. Do not hesitate to contact your hearing care provider if you need any kind of assistance or advice.

**) Some Oticon hearing instruments have automatic volume controls and no external switches to adjust.*

Notes

It takes a truly dedicated approach to help children with hearing problems achieve their full potential. That's why we deliver all the solutions and services that professionals and caregivers need to give children the opportunities they deserve. This is what *child-friendly hearing care* is all about.

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