

Signs of hearing in babies

Recognising your baby's hearing from 0 to 6 months

It can be difficult to tell whether hearing aids are working in a young baby with a hearing loss. In the first six months, the signs that your baby can hear are subtle.

As a parent, you no doubt feel concerned about your baby's development. This information sheet will help you recognise your baby's responses to sound.

How can you tell when a baby hears sounds?

A baby's response to sound is affected by their age, stage of development and degree of hearing loss.

A lack of response doesn't necessarily mean your baby cannot hear.

Babies with normal hearing don't respond to the softest sounds that they can hear in the first two months of life. At this stage the baby's responses to sound are hard to detect – babies might widen their eyes when they hear a sound, or stir in their sleep.

Different levels of sound arouse various responses in babies, depending on how active they are. Babies react to softer sounds when they are just dozing off to sleep as opposed to when awake and active.

Some sounds will be more interesting to your baby than others. In early life, babies are intrigued by voices, so they will respond to voice at softer levels than they would respond to other noises around the home.

Babies are also more interested in complex sounds like rattles or music than in simple sounds like beeps or simple whistles. If a sound is repeated too often, young babies lose interest and may stop responding altogether. This is called habituation.

Babies with significant hearing impairments may be unfamiliar with many sounds around them. It might take some time after the hearing aid has been fitted to see clear signs of hearing.

The vocalisations of babies give clues about what they can hear. Some babies quieten down and concentrate when their hearing aids are first turned on each day; others become noisier as they test their aids. Older children may make a wider variety of sounds when wearing their hearing aids.

Observing your baby at home

Although it's a challenge trying to tell how much your baby can hear, you can get a lot of information when you know what to look for.

1. Talk to your audiologist about the ways your baby might respond to sound.

Your baby's ability to respond to sound will depend on the degree of the hearing loss and the effectiveness of the hearing aids. Ask your audiologist to explain the types of sounds they think your baby might hear.

Your audiologist might assess your baby's hearing with a Behavioural Observation Audiometry, which uses a range of different noisemakers. You will be able to observe some of the ways that your baby responds.

This guide will help you identify the behaviours that show your baby is hearing sounds.

Age	Typical hearing and listening behaviour
0 – 28 days	<ul style="list-style-type: none"> • Responds best to nearby sounds • Startles at sounds perceived as loud. • Widens eyes or blinks at sudden sounds and may become distressed • Stirs or arouses from sleep in response to sounds. Babies will generally respond to soft sounds when in a light sleep. When babies are in a heavier sleep, sounds usually need to be perceived as being loud to arouse a response • Eye movement. Newborns may corner their eyes towards a nearby, continuous sound. At one month, babies may move their eyes and heads towards a nearby sound • Body may tense in response to certain sounds • May extend limbs or fan out fingers and toes.
1 – 4 months	<ul style="list-style-type: none"> • Widens or blinks eyes and may wrinkle eyebrows in response to sounds • Eyes may shift towards sound • Quietens when sound occurs and may become tense • Starts turning head towards sound by four months.
4 – 7 months	<ul style="list-style-type: none"> • Turns head towards sound but can only locate the sound directly if it's on the same level as the ear • Appears to listen.

2. Take note of what your baby does at home

Don't try to do your own hearing tests. If your baby is overly active or tired they may not respond to the sounds you expect. This can be disheartening. If you've made the same sound several times your baby might have habituated and won't respond at all. It's better to just keep alert so that you are ready to observe those responses to sound that your baby naturally displays.

You will see the best hearing responses when it's quiet and your baby is not fast asleep or upset. You will probably see more obvious responses when your baby is very calm or drifting off to sleep, or when there are sudden loud noises. If the house is noisy it may be more difficult to see responses to certain sounds.

It's important to watch whether your baby's response may have been to visual cues as rather than auditory ones. If you clap your hands in front of your baby's face causing a blinking response, you can't really tell whether the blink is due to the loud sound or the motion of your hands. Some babies may also be tuned in to the smell of a parent's perfume or aftershave and use that as a clue to when Mum or Dad is close by.

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The following questions are a guide to help you with your observations

- How many different types of responses can you see?
- Are there any sounds your baby particularly likes or dislikes?
- Are there any sounds that cause your baby to startle or cry?
- Does your baby respond to soft or moderate sounds as well as loud sounds?
- Is there a particular time of day when your baby is more responsive? (This would be a good time of day to spend playing and talking with your baby.)
- Talk to your baby when you first turn on the hearing aid. What responses can you observe?
- Does your baby talk more often or differently when wearing the hearing aids?

Also consider keeping a 'listening diary' to record your observations. This will show you your baby's progress and can be useful in discussions with your audiologist and your child's early intervention teacher.

3. Discuss your observations with your audiologist, including any concerns and questions.

Your observations are invaluable in helping your audiologist make decisions about fine-tuning your baby's hearing aid.