



Chapter 5

What can your child hear?

Some children are completely deaf and cannot hear at all or can hear only very loud sounds. When babies are very young, parents notice their babies cannot hear, because they do not turn their head or respond, even to loud sounds.



Many more children with some hearing loss can still hear a few sounds. This sort of hearing loss can be harder for parents to notice. A child may show surprise or turn her head to a loud noise, but not to softer noises. She may respond only to certain kinds of sounds. Some children can still hear a little when people speak to them.

They may slowly learn to recognize and respond to some words. But they do not hear all words clearly enough to understand. Children with this sort of hearing loss are slow to learn to speak.

Many children develop hearing loss because of repeated and long-lasting ear infections or as a side effect of certain medicines (for causes of deafness see Chapter 15). Parents may not notice a child is slowly losing his hearing until he is maybe 4 or 5 years old and has not yet started talking, or is not talking clearly.

If you can find out early how much your child can hear, it will help you know what kind of extra help to give him so he can communicate. Sometimes parents, other children, or teachers think a child with hearing loss is mentally slow. If children who are deaf get extra help to learn to communicate, most of them can learn and be educated like other children. That is why it is important to find out what, if anything, a child can hear.

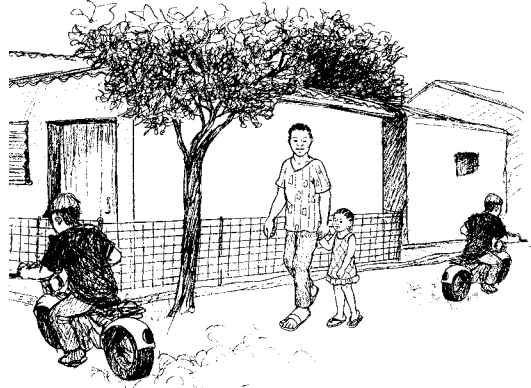
Understanding sound

If parents know about the different types of sounds, it will help them understand how much and what kind of sounds their children can hear.

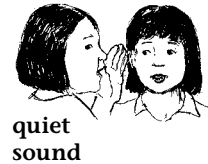
LOUDNESS

Some sounds are louder than others. Noises that are closer are louder than the same noises farther away.

A motorcycle is much louder than a person walking. When a motorcycle is close by, it will sound much louder than a motorcycle farther away.







Some sounds can be made louder or quieter. For example, you can increase the loudness of a radio or you can make your voice quieter by changing from a shout to a whisper.



PITCH





Pitch is how high or low the tone of a sound is. Like in music, sounds can go up and down from high to low pitch.

Higher-pitch sounds

| | | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| a bird | a flute | water pouring | a baby's cry |
|  |  |  |  |

Higher-pitch sounds have a sharp, thin sound that can feel like it goes right through your ears.

Lower-pitch sounds


| | | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| a cow | a drum | thunder | a man's voice |
|  |  |  |  |

Lower-pitch sounds have a full, heavy sound that you can feel in your bones.

Different speech sounds also have higher or lower pitches. For example, the sounds 'o-o-o' and 'm-m-m' have a low pitch. The sound 'e-e-e' has a medium pitch. The sounds 's-s-s' and 'f-f-f' have a high pitch.


There are many kinds of hearing loss

A child who has problems hearing usually has difficulty with both loudness and pitch. For example:




This baby does not hear well. She cannot hear **high-pitch sounds**.

She cannot hear her father playing the flute. But she can hear low-pitch, loud sounds like drums.



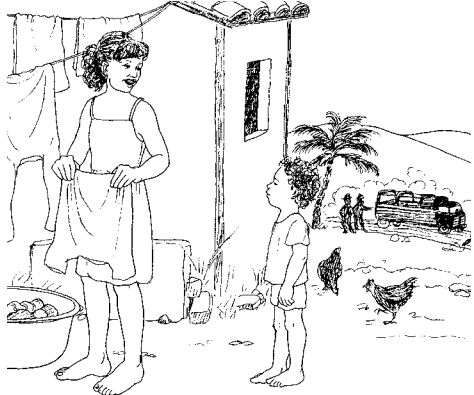
This boy cannot hear well. He cannot hear **low-pitch sounds**.

He cannot hear his father playing the drum, though he may feel its vibration (shaking). But he can hear high-pitch sounds like a baby crying.



This girl cannot hear well. She cannot hear **middle-pitch sounds**.

She can hear high-pitch sounds, so she can hear the baby crying. She can also hear low-pitch sounds like her father's voice. But she cannot hear her mother's voice.



This boy is completely deaf. He cannot hear **any sounds**.

He cannot hear his mother, the chickens in the yard, or the truck on the road, no matter how loud they are.

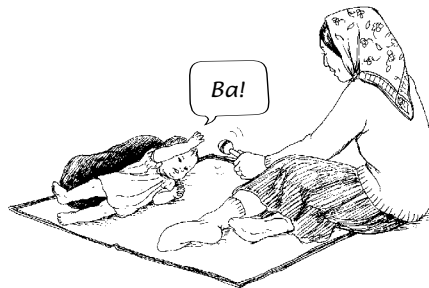
What sounds can your child hear?

If your child can hear a little, finding out which sounds she can hear will help you. The more you know about your child's hearing, the better you can communicate in a way she can understand.

NOTICE HOW YOUR CHILD RESPONDS TO SOUND

It can be difficult to know if and when a child hears a sound, especially with very young children. You will know if your child hears a sound because she may:

- move her arms and legs.
- change the look on her face.
- become very still.
- make a sound herself.
- smile or laugh.
- turn toward the sound, or tilt her head to listen.
- be startled, open her eyes wider, or blink.



Does your child seem to hear some sounds?

To find out more about what a child can hear, watch him closely throughout the day and ask yourself:

- Does he seem to hear mostly high-pitch sounds? Or mostly low-pitch sounds? Or a mixture of both?
- Does he hear a sound some of the time but not all the time?
- Can he only hear sounds when the room is quiet?
- Does the sound have to be very loud for him to hear it?



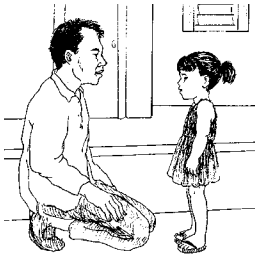
When the room is quiet, Kofi can hear the blocks fall down.



Kofi may not hear the blocks fall down when there is other noise in the room.

CHECKING A CHILD'S HEARING AT HOME

It is hard to check a small child's hearing. But even if you plan to have your child's hearing tested by a professional, it is helpful if you can first



check your child's hearing yourself. Then you can give information to the professional and you can better understand what the professional is doing.

Also, checking hearing at home is free and uses materials that are easy to find. And doing the checking yourself will give you more confidence to decide about your child's care and development. It is also a good way for friends and family members to get more involved as your child learns to communicate.

Keep in mind that your child may respond to:

- what she sees, not to the sound.
- the vibration (shaking) that a loud sound makes.
- the expression on your face, or to your gesture.

And your child may not respond if:

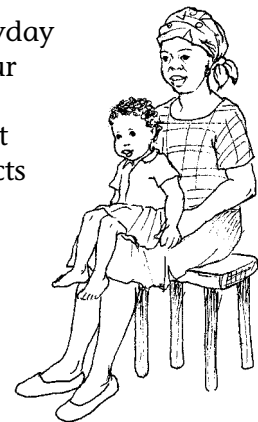
- she is busy doing something.
- she is sick or has an ear infection.
- she is tired, bored, or in a bad mood.

How to check your child's hearing

Try to notice the sounds your child responds to in everyday settings. This is a good, general way to learn about your child's hearing. Next, you can check to see what kinds of sounds your child may or may not hear. You can first check to see what sounds she hears that different objects make, and then what 'speech' sounds she hears when people talk.

To do this, you need:

- a quiet place without other sounds or noise.
- some simple equipment.
- 2 people to help you.

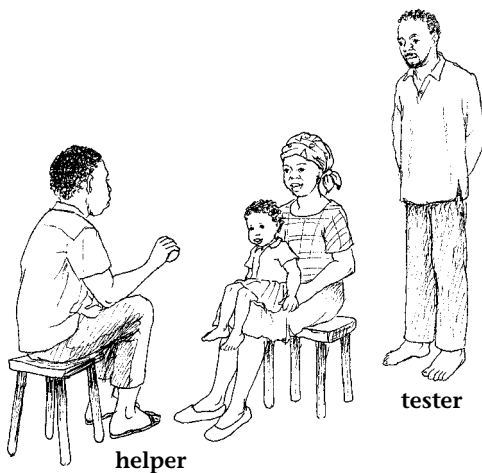


First try to check the hearing of a child who is the same age as your child and whose hearing is normal. Practice until you see how a young child responds to hearing a sound.

- Keep the checking relaxed and enjoyable.
- Use a variety of small toys to keep the child from getting bored.
- Keep the sessions short. You can check hearing in more than one session.

► **Check for loudness and pitch of sounds**

One **helper** sits in front of a parent and child. He will get the child's attention by showing her a small toy.



The other person stays 1 meter (3 feet) behind the parent, out of sight of the child. This person is the **tester**. He will make the sounds to each side of the child, for the child to hear. If the child turns to look at the tester, the tester should not interact with the child by smiling or looking at her.

What you will need to check hearing

In this test you will use simple sound makers made from

1. Put a piece of wood in the first tin can (low-pitch sound)
2. Put a handful of large uncooked dry beans in the second tin can (middle-pitch sound)
3. Put a handful of uncooked rice in the third tin can (high-pitch sound)

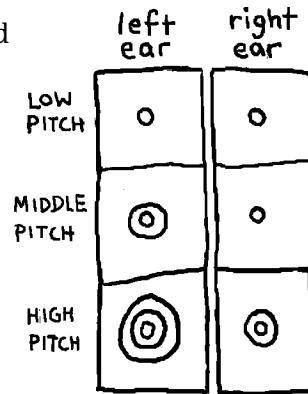


Shake the can gently for a **quiet** sound. Shake it harder for a **medium** sound. Shake it very hard for a **loud** sound. The tester should practice shaking each of the cans until he can control the loudness.

How to record sounds the child hears

Here is one way to make a chart to record what sounds the child can hear. The chart has one section for each ear. Each section has boxes for low, middle, and high pitches.

You will mark each box to record if the child heard each sound when it was quiet (1 circle), medium (2 circles), or loud (3 circles). If the child could not hear the sound at all, no matter how hard you shook the can, there will be no circle.



○ = soft sound ◎ = medium sound ⊗ = loud sound

Testing the child

Helper: Calmly get the child's attention with the toy. When the child is paying attention to the toy, gently cover the toy with your other hand.

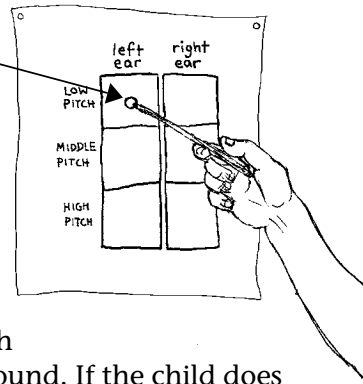


Tester: Use the can to make the low-pitch sound. Cover the top of the tin can and shake it for about 3 to 4 seconds behind one of the child's ears. First make a quiet sound.

Helper and parent: Notice if the child responds to the sound.

Helper: If the child responds, nod your head slightly to show the tester that the child responded.

Tester: If the child responds to the quiet sound, mark the chart with 1 circle and stop testing that ear with the low-pitch sound.



If the child **does not respond** to the quiet sound, shake the can a little harder to make a medium sound, also for about 3 to 4 seconds. Wait to see if the child responds.

If the child does respond, mark the chart with 2 circles and stop testing that ear with that sound. If the child does not respond to the medium sound, shake the can hard to make a loud sound for 3 to 4 seconds. If the child responds to the loud sound, put 3 circles in the correct box on the chart.

There will be no circle if the child did not hear the sound.

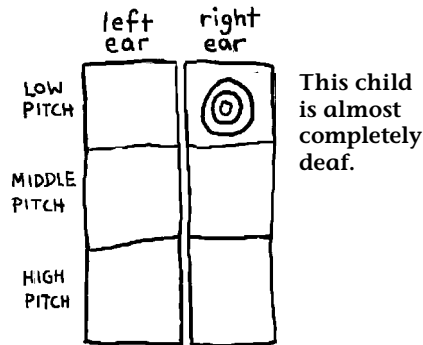
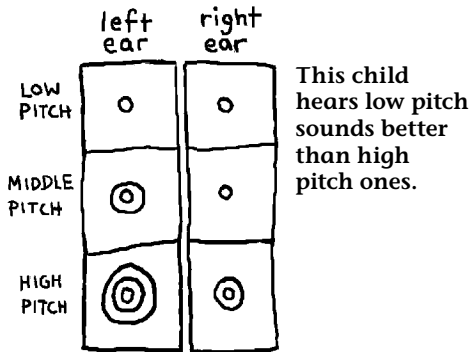
Repeat the test behind the child's other ear.

Be sure to check both ears with all three sounds —

- the low-pitch sound (the can with wood)
- the middle-pitch sound (the can with beans)
- the high-pitch sound (the can with rice)

When you have finished

Look at the pattern of hearing. It may be very different for each child.



The high pitch sounds have to be louder for her to hear them. She also hears better on her right side than on her left.

He can hear no sounds in his left ear. He can hear a little in his right ear, but only low pitch sounds that are loud.

| | | |
|----------------|------------------|----------------|
| ○ = soft sound | ◎ = medium sound | ⊙ = loud sound |
|----------------|------------------|----------------|

To get the best results

The parent should

- hold the child steady on her lap, but freely enough that the child can turn around.
- not react to any of the sounds made by the tester.



The tester should

- stay behind the child.
- make the sounds at the same height as the child's ears.
- make the sounds 1 meter (3 feet) from the child.
- not let the child see him, or his shadow or reflection.
- make the sounds on the left and right side of the child.



The helper should

- keep the child's attention on the toy.
- be calm and quiet.
- not look at the tester.
- not react to any of the sounds made by the tester.



CAN THE CHILD HEAR SPEECH SOUNDS?

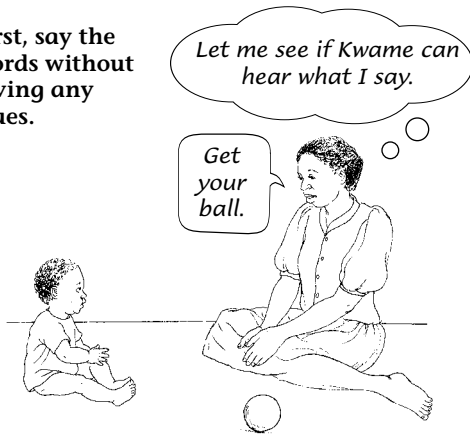
Speech sounds also have differences in pitch. The speech sounds ‘t’, ‘d’, ‘s’, and ‘sh’, for example, have a higher pitch than sounds like ‘oo’, ‘ee’, and ‘m’. This means your child may be able to hear some speech sounds but not others.

It will help to know if your child can hear high, middle, or low-pitch speech sounds, and how loud the sounds have to be for him to hear them. Try to notice the sounds he seems to hear when family members speak.

Children may seem to understand words when it is really the situation that makes the meaning clear. If someone says “Get the ball,” while pointing or looking at it, the child may go to get the ball. He may not have heard the word but may have seen the person pointing at the ball.

To find out if he is hearing words or not, use 3 or 4 familiar objects in a game or as part of a daily task he already knows. Do this several times to find out if your child hears the names for the objects.

First, say the words without giving any clues.



Then, if your child did not understand the words alone, say the words, then look at the object.



Your child may also seem to hear sounds some times but not always. This does not mean your child is being stubborn. He just does not hear you. Many things can affect how he responds to sounds — like the time of day, hunger, or how your child is feeling that day. Colds and ear infections can also affect children’s hearing temporarily.

If your child still does not understand, say the words, then look and point to the object.



► **Check for speech sounds a baby or child can hear**

In a speech test, instead of shaking a can to make a sound, the tester makes the sounds using his voice.

In this test you will use simple sounds.

1. The sound 'm-m-m-m-m' (humming) (low-pitch sound).
2. The sound 'oo-oo-oo-oo' ('oo' as in 'boot') (middle-pitch sound).
3. The sound 's-s-s-s-s' (hissing) (high-pitch sound).

The soft sound should be as quiet as possible. Ask a person with normal hearing to listen to you and tell you if she can hear the sound when you say it softly.



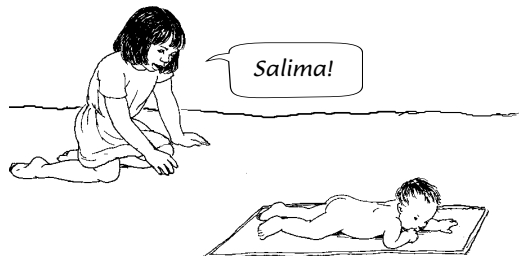
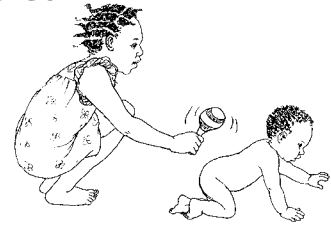
The test is done in the same way as the loudness and pitch test. You start with the lowest pitch 'm-m-m-m', making the sound softly for 3 to 4 seconds behind the child's left ear. Continue in the same way — softer to louder, left ear then right ear, lower pitch to higher pitch. Be careful not to increase pitch as you increase the loudness.

CHILDREN CAN HELP TOO

Children can also play an important role in helping to check the hearing of brothers, sisters, and other children in the community.

► **How to check babies 4 months and older**

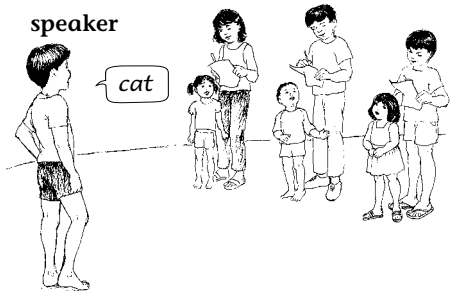
- Make a rattle from a can or gourd with small stones inside. A child can creep up quietly behind the baby. Make sure the baby does not see you first. Shake the rattle behind her head, first on one side and then the other. See if she is surprised.
- Call the baby's name from different places in the room. See if she responds in any way.



► Ways to check young children's hearing

Game: What's that animal?

Make one child the speaker and have him stand 4 meters (12 feet) from a line of younger children. Behind each young child stands an older child with a pencil and paper.



First, the speaker uses a very loud voice to say the name of a common animal.

The young children whisper the name they heard to their older partners. The older children write that down on a piece of paper.

Then the speaker names other animals, each one more quietly, until he is whispering. The older children write down every name that the young children tell them.

After the speaker has named about 10 animals, and the younger children's words have been written down, compare the lists. Any child who has not heard as many words as the others, or has not heard them correctly, may have a hearing problem.

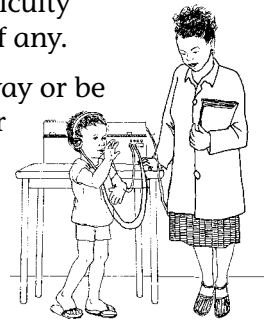
Tests that can be done at a health center

A clinic or health center may also be able to test your child's hearing. This kind of testing can be useful if you think your child has difficulty hearing but you cannot tell what kinds of sounds he can hear, if any.

Unfortunately, a clinic that can test hearing may be very far away or be very expensive. But professional testing will be necessary if your child is going to use a hearing aid.

If you have already checked your child's hearing yourself in a familiar place, he may feel less afraid when he is tested by a strange person in a strange place. He may be more cooperative and he may understand more about what he is supposed to do.

Information from the hearing test is used to set a hearing aid to match the child's hearing. For more information about hearing aids see pages 217 to 224.



What to do with this information

If your child can hear some sounds, you can help her learn to use her hearing better. See the next chapter on developing listening skills. After working on your child's listening skills for about 6 months, check her hearing again to see if you get the same results.