



# Ear Infections (Otitis Media) and Hearing Loss in Young Children

## What is Otitis Media?

Ear infection, also called otitis media or inflammation of the middle ear, is an infection of the part of the ear behind the eardrum. Next to the common cold, otitis media is the most common illness diagnosed during childhood. It's also one of the most common reasons for the prescription of antibiotics and other medications to children.

## Who gets it and how?

Middle ear infections are common in children between the ages of 1 month and 6 years, and most common under age 3. Ear infections can run in families, and boys are more affected than girls. Some children develop ear infections a few days after a cold starts. Some children have one infection after another, whereas others never have any. Conditions that increase a child's risk of ear infections are frequent colds, allergic runny noses, bottle propping, exposure to smoke and attendance in group settings such as child care.

## What are the signs and symptoms?

Symptoms result from swelling of the middle ear. The child may cry persistently, tug at the ear, have a fever, have trouble sleeping, be irritable and have hearing problems. When infection occurs, pus develops, pushes on the eardrum, and causes pain and often fever. Sometimes the pressure is so great that the eardrum bursts and the pus drains out into the ear canal. Although this yellow-white discharge may frighten parents, the child feels better and the hole in the eardrum will heal over. Sometimes the child may have diarrhea, nausea and vomiting.

## What are the complications?

Most of the time ear infections clear up without causing any lasting problems. However, if not treated, otitis media can cause problems such as hearing loss, infection of the inner ear, and even meningitis. Fluid may remain in the ear as long as six months after an infection is gone.

## When should a child be excluded?

Since ear infections themselves are not contagious, there is no reason to exclude the child from your facility unless he or she has a high fever, cannot participate in activities because of pain, or needs more care than you can give without compromising the care given to other children.

## How can reduce ear infections?

Prevent the spread of colds and other upper respiratory infections which may lead to otitis media.

- Practice good hand washing.
- Teach children to cough into their elbow and away from people.
- Wipe noses with clean tissues, dispose of them properly and wash your hands.
- Don't share food, bottles, toothbrushes or toys that can be put in the mouth.
- Play outdoors often. Let fresh air into your program daily.

## How do I care for children who get frequent ear infections?

- Never use cotton swabs and never put anything smaller than your finger into a child's ear. Do not allow the child to do so either.
- Do not feed or bottle-feed infants lying on their backs. Never prop bottles while feeding.
- Be especially alert for any sign of hearing or speech problems that may show up. Refer the child to the family's health care provider or other community resources.
- Be sure that prescribed antibiotics are taken for the full amount of time to avoid resistant infections.

## How do I care for children with ear tubes?

An ear tube creates a hole in the eardrum so fluid and pus may drain out. It usually stays in for three to six

months. Since pus can drain out, water from the outside world (which has germs in it) can also run into the middle ear easily. Therefore, you must be very careful that children with tubes do not get water in their ears. This usually means no swimming unless there are special earplugs and permission from the health care provider. Watch for any sign of hearing or speech problems.

## The impact of hearing loss

Frequent, undetected or untreated ear infections can lead to permanent hearing loss, delayed speech and language development, social and emotional problems, and academic failure. The earlier hearing loss is identified, the sooner effective treatment can begin. Some babies are born with hearing problems. Other children are born with normal hearing and begin to

have problems as they grow older. Hearing problems can be temporary or permanent. Hearing loss can be caused by ear infections, injuries or diseases.

If your child or a child in your care has a hearing problem, the primary health care provider should be consulted.

## References

American Academy of Audiology (2022), *Newborn Hearing Screening*, <https://www.audiology.org/consumers-and-patients/children-and-hearing-loss/newborn-hearing-screening/>

National Institute on Deafness and Other Communication Disorders (2013), *Ear Infections in Children*, <https://www.nidcd.nih.gov/health/ear-infections-children>

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## Baby's Hearing Checklist

Use this checklist to share with parents or health providers to determine if there is a hearing loss.

### Yes No Birth to 3 months

- Reacts to loud sounds
- Is soothed by your voice
- Turns head to you when you speak
- Is awakened by loud voices and sounds
- Seems to know your voice and quiets down if crying
- Smiles when spoken to

### 3 to 6 months

- Looks up or turns toward a new sound
- Imitates his/her own voice
- Responds to "no" and change in tone of voice
- Enjoys toys that make sounds
- Begins to repeat sounds (like ooh and ba-ba)
- Becomes scared by a loud voice

### 6 to 10 months

- Responds to own name, telephone ring, someone's voice, even when not loud
- Knows words for common things (cup, shoe) and sayings ("bye-bye")
- Makes babbling sounds, even when alone
- Starts to respond to requests such as "come here."
- Looks at things or pictures when someone talks about them

### Yes No 10 to 15 months

- Plays with own voice, enjoying the sound
- Points to or looks at familiar objects or people when asked to do so
- Imitates simple words and sounds; may use a few single words meaningfully
- Enjoys games like peek-a-boo and pat-a-cake

### 15 to 18 months

- Follows simple directions ("give me the ball")
- Often knows 10 to 20 words
- Uses words he/she has learned
- Uses 2-3 word sentences to talk about things

### 18 to 24 months

- Enjoys being read to
- Understands simple "yes-no" questions ("are you hungry?")
- Understands simple phrases ("in the cup")
- Points to pictures when asked

### 24 to 36 months

- Understands "not now" and "no more"
- Chooses things by size (big, little)
- Follows simple directions such as "get your shoes," and "drink your milk."
- Understands action words (run, jump)