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# Ear Infections in Babies and Toddlers

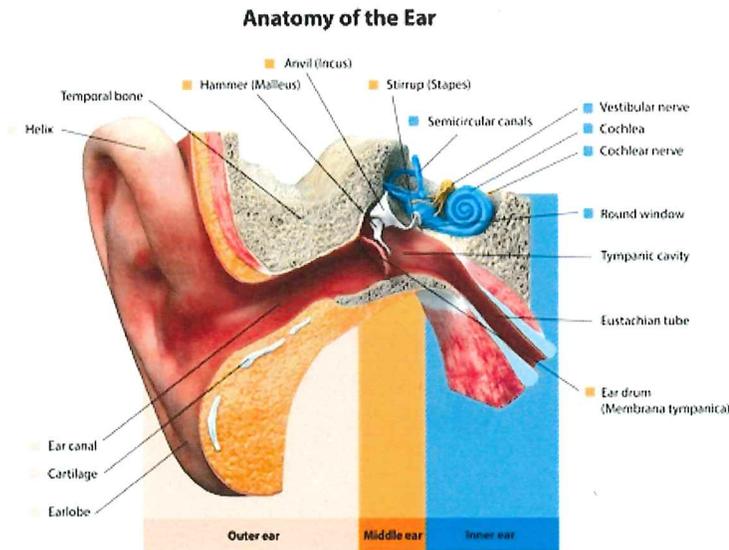
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## Featured Expert:

[David Tunkel, M.D. \(https://www.hopkinsmedicine.orghttps://www.hopkinsmedicine.org/profiles/details/david-tunkel\)](https://www.hopkinsmedicine.orghttps://www.hopkinsmedicine.org/profiles/details/david-tunkel)

Ear infections in babies and toddlers are extremely common. In fact, according to the [National Institutes of Health \(https://www.hopkinsmedicine.orghttps://www.nidcd.nih.gov/health/ear-infections-children\)](https://www.hopkinsmedicine.orghttps://www.nidcd.nih.gov/health/ear-infections-children), five out of six children will experience an ear infection before their third birthday.

"Many parents are concerned that an ear infection will affect their child's hearing irreversibly—or that an ear infection will go undetected and untreated," says [David Tunkel, M.D. \(https://www.hopkinsmedicine.orghttps://www.hopkinsmedicine.org/profiles/results/directory/profile/0003393/david-tunkel\)](https://www.hopkinsmedicine.orghttps://www.hopkinsmedicine.org/profiles/results/directory/profile/0003393/david-tunkel), Johns Hopkins Medicine pediatric otolaryngologist (ENT). "The good news is that most ear infections go away on their own, and those that don't are typically easy to treat."



## Childhood Ear Infections Explained

Ear infections happen when there is inflammation— usually from trapped bacteria—in the middle ear, the part of the ear connects to the back of the nose and throat. The most common type of ear infection is otitis media

(<https://www.hopkinsmedicine.org/health/conditions-and-diseases/otitis-media>), which results when fluid builds up behind the eardrum and parts of the middle ear become infected and swollen.

If your child has a sore throat, cold, or an upper respiratory infection, bacteria can spread to the middle ear through the eustachian tubes (the channels that connect the middle ear to the throat). In response to the infection, fluid builds up behind the eardrum.

Children are more likely to suffer from ear infections than adults for two reasons:

Their immune systems are underdeveloped and less equipped to fight off infections.

Their eustachian tubes are smaller and more horizontal, which makes it more difficult for fluid to drain out of the ear.

"In some cases, fluid remains trapped in the middle ear for a long time, or returns repeatedly, even when there's no infection," Tunkel explains.

## Ear Infection Signs and Symptoms

The telltale sign of an ear infection is pain in and around the ear. Young children can develop ear infections before they are old enough to talk. That means parents are often left guessing why their child appears to be suffering. When your child can't say "my ear hurts," the following

signs suggest an ear infection could be the culprit:

Tugging or pulling the ear

Crying and irritability

Difficulty sleeping

Fever, especially in younger children

Fluid draining from the ear

Loss of balance

Difficulty hearing or responding to auditory cues

Signs that require immediate attention include high fever, severe pain, or bloody or pus-like discharge from the ears.

## Pediatric Otolaryngology

Our pediatric otolaryngologists provide compassionate and comprehensive care for children with common and rare ear, nose, and throat conditions. As part of the Johns Hopkins Children's Center, you have access to all the specialized resources of a children's hospital.

## Ear Infection Treatments

Most ear infections go away without treatment. "If your child isn't in severe pain, your doctor may suggest a 'wait-and-see' approach coupled with over-the-counter pain relievers to see if the infection clears on its own," Tunkel says.

The reason: Treating an infection with antibiotics may cause the bacteria causing the infections to become resistant to those antibiotics—and that makes treating future infections more difficult. Equally important, in most cases antibiotics aren't necessary. Otitis media tends to get better without them. While you may be tempted to treat your child's ear infection with homeopathic or natural medicine, Tunkel warns they aren't well studied.

Your best bet is to work with your child's health care provider to determine the appropriate course of action. In nearly every case, treatment decisions depend on the child's age, degree of pain and presenting symptoms.

## Under 6 months

Babies under six months almost always receive antibiotics. At this age, children are not fully vaccinated. Equally important, there's no research about the safety of skipping antibiotics for babies under 6 months of age — and complications from ear infections can be more severe when they occur in young babies. Bacteria trapped behind the eardrum can spread to other parts of the body and cause serious infections.

## 6 months to 2 years

For children between the ages of 6 months and 2 years, the American Academy of Pediatrics (AAP) recommends shared decision-making between parents and providers about whether to treat ear infections that are not severe. The best course is often to watch the child for two to three days before prescribing antibiotic treatment. If the child is in pain, or the ear infection is advanced, your child's doctor may suggest immediate antibiotic treatment.

## Over 2 years

With children over the age of 2, ear infections that are not severe are likely to clear on their own, without treatment. "In the meantime, you can treat pain with over-the-counter medications, such as ibuprofen or acetaminophen," Tunkel says. If there's no improvement after two to three days, antibiotics may be warranted.

Unfortunately, some children suffer from recurrent ear infections, sometimes up to five or six a year. Kids who get repeated infections may benefit from a [surgical procedure where doctors insert small tubes in the eardrums](https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/ear-tube-insertion) (<https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/ear-tube-insertion>) to improve air flow and prevent fluid buildup. "Tubes don't prevent all ear infections, but they make managing them significantly easier," Tunkel explains.

## Ear Infection Prevention

There are several steps you can take to reduce your child's risk of developing ear infections, including:

**Vaccinate your child:** Children who are up-to-date on their vaccines get fewer ear infections than their unvaccinated counterparts. The 13-valent [pneumococcal conjugate vaccine](https://www.cdc.gov/vaccines/hcp/vis/vis-statements/pcv13.html) (<https://www.cdc.gov/vaccines/hcp/vis/vis-statements/pcv13.html>) (PCV13) protects against 13 types of infection-causing bacteria.

**Consider breastfeeding:** Breast milk contains antibodies that may help reduce the risk of ear infections and a host of other ailments. Whether you feed milk or formula, make sure your child

sits up during feedings to prevent fluid from flowing into the middle ear.

**Wash your hands frequently:** The best way to protect your child against cold and flu is to keep your hands clean. [Wash your hands](#)

(<https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/handwashing-for-kids-infographic>) with soap and water and scrub them clean for a full 20 seconds each time you visit the sink.

**Steer clear of sick people:** Don't allow your child to spend time with children or adults who are sick.

**Avoid secondhand smoke:** [Studies](#)

(<https://pubmed.ncbi.nlm.nih.gov/11814376/>) show that children who are exposed to secondhand smoke are up to three times more likely to develop ear infections than those who don't have those exposures.

Whether your child has ear infections or not, it's important to ensure they're able to hear well. "No child is too young to have a hearing test," Tunkel says. "We use a variety of techniques to test infant hearing and we can identify a hearing problem even in newborns."

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