## EAR, NOSE & THROAT

## Little ears, big problems

Children are more prone to ear infections than adults, but because they may not be able to describe the pain and discomfort, the condition can get mistaken for something else.



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▲ typically as a result of an asymptomatic infection – such as toxoplasmosis, cytomegalovirus and herpes – in a mother during her pregnancy.

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even in newborns,

If hearing tests are not done, hearing loss, including the most profound, can go undetected for years in these young children. Even mild to moderate bilateral hearing loss can result in delays in speech and language development, so some children end up misdiagnosed as being autistic, attention-deficit or having low IQ.

For the most accurate results, specialised and age-appropriate hearing tests are conducted in soundproof rooms by paediatric audiology professionals. A newborn may need auditory brainstem response tests while asleep, while a three-year-old is played audiometry for sustained concentration, and a five-year-old with intellectual disability undergoes a combination of tests.

Early intervention is important and solutions can be reached with hearing aids and auditory verbal therapy. For more severe hearing loss, cochlear implant surgery is recommended.

## Why kids are more vulnerable

The middle ear is an air space as small as an M&M candy. It is located behind the ear drum, and is connected to the nose via the eustachian tube. In children, the eustachian tube is shorter and more horizontal, so they are more vulnerable to retrograde infection from the nose as well as reflux and milk contamination.

This also means they tend to have problems related to nasal allergy, adenoid hypertrophy and upper respiratory tract infections. After a cold, for example, the middle ear fluid may persist for between 1 and 3 months, causing up to 50% reduction in hearing.

To complicate the situation, younger children do not know how to aptly describe the discomfort and pain of an ear infection. When they instinctively rub their ears, it is often dismissed as earwax or teething discomfort. But if they become finicky and irritable, especially at night, or need higher volumes to hear, you should take these as signs that an ear check is required.

## Does your child have an infection?

Acute ear infections with fever are often painful. If high fever and pain in very young children do not improve after two days, antibiotics are required to prevent brain infections. Infants may even require intravenous antibiotics.

Chronic middle ear infections are often asymptomatic. Avoid cigarette smoke, childcare setting, bottle-feeding while lying down, and pacifiers. If they fail to resolve with treatment of nose infection, allergies and reflux, surgical placement of grommet tubes on the eardrum

and adenoid removal could be needed. These are offered to prevent erosion of the middle ear bones, scarring and permanent eardrum damage and hearing loss.

Ear canal infections, meanwhile, present with a smelly ear discharge. They can be due to poor hygiene, dirty pools, ear digging, rubbing off of protective wax and skin layers, narrow canals or a skin disorder. Profuse and persistent discharge may arise from an overlooked mastoid bone infection, or from an erosive middle ear cholesteatoma tumour.

Congenital simple sinus tract openings in front of the ear can become infected, but are easily excised. However, more extensive surgery may be required for rare cases of the congenital first branchial sinus tracts around the ear passing through the parotid salivary gland. In children whose immunity has been compromised and who are trying to overcome infection, a multidisciplinary specialist team approach works best.

A thorough microscopic ear examination after careful cleaning is important before antibiotic and antifungal creams or ear drops can work. In recalcitrant cases, ear swabs and CT scans may be considered.



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