

Childhood Ear Disease

It is very common for young children to have problems with their ears. This is due to a variety of reasons:

- The structure of the ears and their drainage system is immature, and doesn't work as well as in adults.
- Children get more respiratory infections because their immune system is immature, which predispose to ear infections and fluid.
- Occasionally other structural issues, like a cleft palate or Down syndrome, can also affect the Eustachian tube function.

Common conditions:

- Acute infections (acute otitis media): pus forms behind the eardrum, causing a high fever, pain and hearing loss. In some cases this can lead to eardrum rupture, febrile convulsions, and other, less common complications.
- Chronic middle ear fluid ('glue ear', otitis media with effusion): there is no evidence of infection (pain, fever etc), but your child might complain of poor hearing, a blocked irritable feeling in their ears, or might be a little dizzy at times. If the fluid is there for a prolonged period, you might notice that your child's language development is affected. They might talk later and less than is normal for their age, or words might be mispronounced. School aged children might begin to struggle with their studies, and sometimes they can begin to have behavioral trouble as an expression of their frustration.
- Permanent ear drum perforations: these can occur after ear infections, or after grommet surgery if the ear drum fails to heal properly.

Prevention:

1. **Immunisation:** completion of the standard childhood immunization schedule has a moderate benefit in reducing the frequency and severity of childhood ear infections. Flu vaccination, although useful for other reasons, has not been shown to be helpful in reducing childhood ear infections and therefore is not recommended for *this* purpose.
2. **Dummies:** use of a dummy past the age of 11 months has been linked to a moderate increase in ear infections. Probably best to minimize its use, or 'spit the dummy' altogether if your child is older than this.
3. **Smoking:** there is a definite increase in both acute infection and chronic ear fluid in children who are exposed to cigarette smoke. There is also a clear increase in respiratory infections, asthma and many other childhood illnesses. **There is absolutely no excuse for smoking around your children.**
4. **Childcare:** this is a tricky area. There is a moderate increase in ear problems in children who are in childcare. This has mostly been studied in children attending care full-time, with no good evidence available about risks for children in care for a few days a week. The number of children at the centre also seems to be related to the risk of more ear infections. Parents obviously place their children in childcare for good reasons, and plenty of children who do not attend care still get ear infections. If this seems to be a particular issue for your child, consider taking a 'childcare holiday' for a few weeks to break the cycle of recurrent infections, or changing to family day care or a centre with fewer children if possible to reduce the number of bugs that your child encounters. Remember, that children in childcare get, overall, exactly the same number of infections, coughs and colds over their lifetime as kids raised in the home, they just get them earlier.



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Treatment:

There are a variety of treatments for these conditions, which can include antibiotics or surgery ('grommets') to deal with the issue. In some cases your surgeon might also recommend that the adenoids be removed, as this has been shown to decrease the frequency of ear problems in some children.

Symptomatic management: For all acute infections, pain relief (a combination of paracetamol and ibuprofen at doses appropriate for your child's weight) will help keep pain and fever at bay, and should be used regularly until your child is better. Keep your child home, let them rest until they feel well, and keep the fluids up.

Antibiotics: many acute ear infections will settle with just pain relief and rest. This avoids the side effects of antibiotics (tummy upset, diarrhoea, thrush etc), and helps to reduce increasing rates of resistant bacteria ('superbugs') in the community, keeping all our children healthier. In cases where the infection has not got better after two days, for children < 2yo, in children with other medical conditions (syndromes, immune dysfunction, cleft palates etc), or where the eardrum has burst, tablet/syrup antibiotics should be prescribed. Amoxicillin is the current initial antibiotic recommended for uncomplicated ear infections in children, usually for a ten day course.

Chronic middle ear fluid: a two-week course of amoxicillin can sometimes clear this fluid and avoid the need for surgery. Repeating this or using a more prolonged course has no benefit and shouldn't be routinely used. Oral steroid medications (e.g. PredMix) usually will clear the fluid while your child is on them, but the fluid usually reaccumulates once these are stopped, and repeated courses can have significant side effects. They are a reasonable option if the fluid is lingering after a cold or a 'one off' ear infection, but not if the problem is a chronic one.

'Popping' the ears: either doing this by blocking the nose and blowing hard, or by using special devices like 'Otovent balloons' can help in older children. There is no down side, and it may help clear fluid in the ears after a cold.

When should I see an ENT surgeon?

- Acute ear infections not responding to appropriate antibiotics.
- Recurrent ear infections: more than 3 in six months, or 4 in twelve months.
- Recurrent infections with complications (e.g. eardrum perforation).
- Concern about delayed speech or language development, or significant mispronunciation of words.
- Middle ear fluid present for three months or more.