



Information sheet for patients and carers

Is this information for you?

This information is for you if your child is older than six months of age and has a middle ear infection, and you want to understand if antibiotics would be helpful.

About middle ear infections (acute otitis media)

Definition

Acute otitis media is an infection of the middle ear, which sits behind your eardrum.¹ As a result of the infection, fluid collects behind the eardrum and causes the eardrum to bulge, which causes intense pain.

Fortunately, most middle ear infections usually slowly clear up without the need for antibiotics.

Why are babies and young children more likely to get an ear infection?

Babies and young children are more likely to get middle ear infections than older children because the tubes inside their ears (the Eustachian tubes that connect the middle ear to the throat) are smaller than they are in older children.^{2,3} When a child has a cold, germs from the throat can travel up to the middle ear and cause an infection and the build-up of fluid behind the eardrum.

Middle ear infections are common and usually get better on their own

Middle ear infections are very common in small children (especially those aged 6–24 months).⁴

Most infections are not serious and get better on their own in a few days without antibiotics.^{1,5}

Symptoms of middle ear infections

Children with middle ear infections often have a fever, which may be the only symptom of their middle ear infection.⁶

Other symptoms in young children are:^{1,4}

- pulling on the ear
- being fussier than usual
- being less active than usual
- eating less than usual, or not eating at all



- vomiting
- diarrhoea.

In older children, symptoms often include ear pain and/or temporary hearing loss.

Deciding whether to use antibiotics or not

You and your general practitioner (GP) should discuss whether to give your child antibiotics, and reach a decision together. The decision should be based on your child's age, any other health issues they have, and how many ear infections they have had before.

Why GPs do not recommend antibiotics for most cases of middle ear infections

Middle ear infections usually get better by themselves

Most children with ear infections will recover completely without having to take antibiotics.^{1,4,5} This is why the main treatment of ear infections is to give your child simple pain relief, such as paracetamol or ibuprofen, whether or not your doctor also prescribes antibiotics.^{4,5}

Antibiotics usually don't improve a middle ear infection

Most children who have a middle ear infection and take antibiotics will not get better sooner or have less pain or discomfort than children who aren't given antibiotics. This is especially so if your child has mild symptoms and was previously fit and healthy.^{1,5}

In addition, taking antibiotics makes little difference to the likelihood of developing complications such as temporary hearing loss or a perforated eardrum. Nor does taking antibiotics reduce the likelihood of getting another infection.¹

Antibiotics have side effects

People who take antibiotics can experience several side effects, especially diarrhoea and skin rashes, so for many patients (and their carers), the side effects are worse than the infection.^{1,5}

We need to be careful with antibiotics, to make sure they work in the future

Children who have taken antibiotics might later be infected with bacteria that has become resistant to antibiotics, which means the antibiotics won't have the desired effect on the bacteria. This means the infection will be harder to treat.

Bacteria become resistant to antibiotics mainly because people sometimes take antibiotics when they don't need to, or don't take them correctly (eg they don't finish the course of antibiotics).⁷ Bacteria that has become resistant to antibiotics is a serious problem in our community.⁷

But sometimes antibiotics are useful

Your GP will talk with you to find out if your child has particular risk factors that makes them more likely to benefit from antibiotics than the average child with a middle ear infection. Despite the information given above, some children do benefit from antibiotics (eg children younger than 6 months of age, and children with other ear or health conditions).

Common questions about ear infections

How long will it take to get better?

The pain from an ear infection usually lasts less than three days, but can sometimes last up to a week.^{1,5}

What can I do to reduce pain?

Refer to 'Alternatives' below.

What should I do if I think my child is getting worse?

Regularly check to see if there is redness and/or swelling behind the ear, and if there is, immediately take your child to the GP or to urgent care or hospital, as this might be a sign of acute mastoiditis, which is a serious infection.

If there is no redness or swelling behind the ear, but the pain, discomfort and fever are not better after 2–3 days, or if your child experiences vomiting, ear discharge or lethargy, or has any new symptoms or concerns, go back to your GP.

Can I reduce the risk of my child getting a middle ear infection?

It is not possible to completely avoid middle ear infections, but to reduce your child's risk of getting middle ear infections:⁸

- keep your child's flu and pneumococcal vaccinations up to date (check with your child's GP if you aren't sure)
- avoid your child's exposure to passive smoking
- limit their use of dummies, especially after they are six months of age
- breastfeed exclusively for at least the first six months.

Alternatives

Provide pain relief

The main treatment for middle ear infections is pain relief in the form of paracetamol or ibuprofen. Make sure you give the correct dose for your child's size and age. Discuss appropriate pain relief with your GP or pharmacist.

Keep your child comfortable

Keep your child as comfortable as possible. A warm cloth on the ear can help to relieve the pain,⁹ and their favourite movies, games and toys will help them to focus on other things.^{10–12}

More information

Australian Commission on Safety and Quality in Health Care, [Middle ear infection: Should my child take antibiotics?](#)

Australian Government, [Antimicrobial resistance: How does AMR affect you?](#)

Better Health Channel, [Ear infections](#)

Healthdirect, [Otitis media \(middle ear infection\)](#)

Healthdirect, [Medicines for babies and children](#)

Healthdirect, [Antibiotics](#)

National Institute for Health and Care Excellence, [Otitis media \(acute\): Antimicrobial prescribing](#) (information for the public that is from the UK)

The Royal Children's Hospital Melbourne, [Ear infections and glue ear](#)

If you still want to go ahead with antibiotics

If you still want to consider using antibiotics, please discuss this with your GP, who can provide appropriate assessment, advice and treatment.

Delayed prescribing

You could also discuss what's called 'delayed prescribing' with your GP. This is when a GP gives you a prescription for antibiotics and explains that the antibiotics should be given to your child only if symptoms persist after a specified period of time. This is to make sure that your child only takes the antibiotics if they really need to. Very often the pain will subside before the specified period of time, and the antibiotics won't be necessary.

Remember: if you or your child takes unnecessary antibiotics, this can affect whether antibiotics will work in the future.

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