Glue ear

After an ear infection or a cold, some children get fluid trapped inside their ear. This can stop them hearing properly. You may hear this condition called glue ear, or otitis media with effusion (OME). Often it will clear up on its own. But if it doesn’t, treatment can help.

We’ve brought together the most up-to-date research about glue ear to see what treatments work. You can use our information to talk to your doctor and decide what’s best for your child.

What is glue ear?

Your middle ear is the part of your ear just behind your eardrum. It’s normally filled with air. This allows three small bones there to vibrate and send sound waves into the inner part of your ear. The sound waves are then changed into signals that are carried by nerves to your brain.

When a child gets glue ear, their middle ear fills with fluid. The fluid is a bit like the thick mucus that can get stuck in your throat. The fluid can stop the eardrum and the three small bones from moving freely, so they can’t carry sounds to the inner ear as well as they normally would. This may mean your child cannot hear properly.

Your child may get glue ear inside one or both ears.

What are the symptoms?

Poor hearing is the most common symptom. You may notice that your child:

- Seems not to listen to you
- Has the television on at high volume
- Has problems hearing if he or she can’t see the person speaking
- Doesn’t pay attention
• Is overactive
• Asks, "What did you say?" more often
• Speaks more loudly or talks less
• Says words incorrectly or speaks less clearly
• Falls behind friends in his or her use of new words and speech patterns.

Poor hearing can have other causes. But glue ear is the most common reason for hearing loss in children.

To check your child's ears, your doctor will look inside the ears with a tool called an otoscope. The doctor will check to see if your child's eardrum looks dull (a healthy eardrum looks shiny). He or she will also check for any air bubbles or fluid behind the eardrum. However, this test does not always detect glue ear. Even if the eardrum looks normal, your child could still have glue ear.

A special type of otoscope, called a pneumatic otoscope, is better at diagnosing glue ear. It changes the pressure inside the ear canal and lets the doctor see if the eardrum responds by moving. If the eardrum is not moving much, this suggests there is fluid inside the ear.

Your doctor may also do a test called a tympanometry, which measures how the ear reacts to sound and different pressures. This can also indicate whether a child has glue ear.

Your doctor may also recommend that your child has a hearing test.

What treatments work?

Glue ear often clears up on its own, so doctors usually recommend waiting at least three months before considering treatment. During this time, your child may have regular checks with your doctor. You may hear this called 'watchful waiting' or 'active observation'.

If the fluid doesn't clear up after three months and your child has significant loss of hearing in both ears, then your doctor may refer your child to a specialist for treatment.

If your child has Down's syndrome, a cleft palate, or another condition that increases his or her chance of speech, language, or learning problems, your doctor may recommend having treatment for glue ear sooner, without waiting three months.

Surgery to insert tubes (grommets)

The main treatment for glue ear is an operation to put small ventilation tubes into the eardrums. These tubes are called grommets. Grommets let air flow in and out of the middle ear. This helps to control the pressure in your child's middle ear, which stops fluid building up. You may also hear grommets called tympanostomy tubes.
During the operation, the surgeon makes a small hole in your child's eardrum and drains away the fluid. Then the surgeon puts the tube in the hole. It's normal for grommets to fall out after about six to 12 months. When this happens, your child may need another operation to put the tubes in again if he or she still has glue ear. But the chances of needing another operation get smaller as your child gets older.

Other treatments

Researchers have looked at several medicines to help with glue ear, including antibiotics, antihistamines, decongestants, and corticosteroids. But there is no good research showing that these treatments help over the long term, so doctors do not usually recommend them. They can also cause side effects.

Some children with glue ear use special balloons that they blow up with their nostrils. If done regularly, this may help open the tubes leading from the middle ear to the back of the throat (the Eustachian tubes), allowing the fluid to drain from the middle ear.

Some research suggests that children with glue ear who use these balloons are more likely to improve in three months than children who don’t. However, most of the studies have been small, so we don’t know for certain. Also, some children find these balloons difficult to use.

What will happen to my child?

Many children with glue ear get better without treatment within three months. But some children, especially younger children, have glue ear for much longer. Glue ear can also come back.

If glue ear affects your child's hearing for long periods, this could possibly delay his or her speech if your child is learning to talk. It might also affect his or her behaviour and cause problems at school. In these instances, your doctor will probably recommend having treatment.

As children get older, glue ear normally goes away completely. Problems with glue ear don’t usually continue after age 6.

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