

Glue ear

A guide
for parents



**Our vision is a world
without barriers for
every deaf child.**



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We use the term 'deaf' to refer to all types of hearing loss from mild to profound. This includes deafness in one ear or temporary hearing loss such as glue ear.

1

Introduction

Glue ear is one of the most common childhood illnesses. One in five pre-school children in the UK has glue ear at any one time. Children under the age of five are the largest group affected. While it's usually temporary, it can persist for some into adolescence. Glue ear is often linked with ear infections but it can sometimes develop unnoticed.

It's widely accepted that glue ear can cause temporary deafness and delayed speech development in young children. It can also affect children's behaviour and their educational progress.

This booklet aims to provide information on what glue ear is, what will happen if your child is diagnosed with the condition and what can be done to help. It also details the support that is available to you.



This booklet is for adults to read. If your child has been diagnosed with glue ear, check out our video *Ninja Phoenix and DJ and the Gloopy Glop*, a fun animation all about glue ear based on a story written by 10-year-old Dylan.

Scan the QR code on the right to watch the animation.



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What is glue ear?

Glue ear happens when the middle ear (the part behind the eardrum) becomes filled with sticky fluid. Otitis media with effusion (OME) is the medical name for glue ear and it's very common – 8 out of 10 children will experience glue ear before the age of 10.

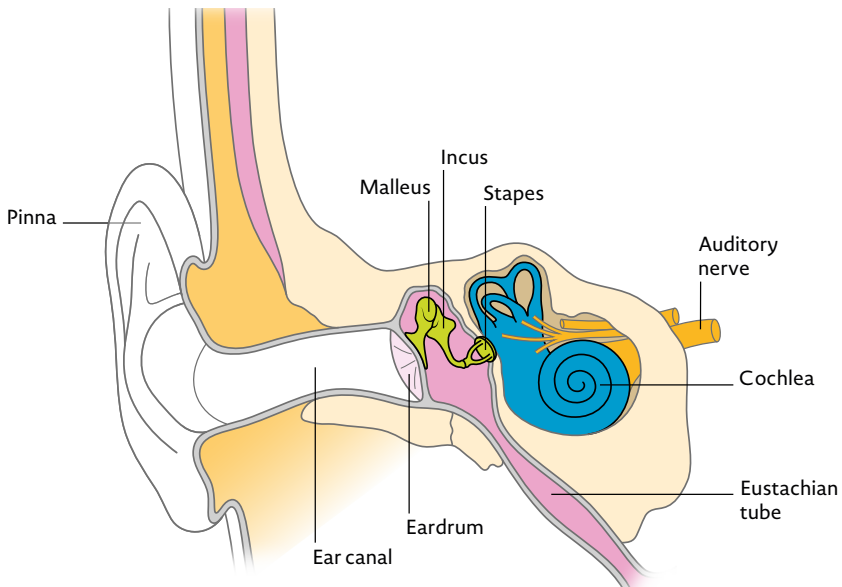
Glue ear can cause temporary conductive deafness. Conductive deafness means anything which prevents or reduces the vibrations through the external or middle ears. Glue ear is the most common cause of childhood deafness.

For ears to work properly, the middle ear needs to be kept full of air. The air travels through the eustachian tube which runs from the back of the throat to the middle ear. If the eustachian tube becomes blocked, air can't enter the middle ear. When this happens, the cells lining the middle ear begin to produce fluid.



This is like a runny liquid which can get thicker and stickier as it fills the space. In children, the eustachian tube isn't as vertical or wide as it will be when they get older, so any fluid in the middle ear doesn't drain away as easily.

With fluid blocking the middle ear, it becomes harder for sound to pass through to the inner ear, making quieter sounds difficult to hear. It can be like listening to the world with your fingers stuck in your ears, so be aware that your child may not always be able to hear everything you say.



Not sure what some terms on this page mean?

Go to the glossary on our website at

www.ndcs.org.uk/glossary.

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What causes glue ear?

There are many different things that can contribute to glue ear, such as colds and flu, allergies, and passive smoking. It's often, but not always, linked with ear infections. Children with cleft palate, or with genetic conditions such as Down's syndrome, may be more likely to get glue ear as they often have smaller eustachian tubes that don't function as well as they should.

Breastfeeding

Research suggests that breastfeeding may reduce the risk of babies and young children developing glue ear. It's thought that breast milk contains proteins which can help stop inflammation and protect against glue ear even when breastfeeding has stopped.

Smoke-free environment

Research carried out by the Department of Health has shown that all children are more likely to get ear infections and glue ear if they're often in a smoky environment. A child is likely to experience glue ear for as long as the environment remains smoky.

Parents should try to make their children's environment smoke-free. If it isn't possible to make the environment entirely smoke-free, then smoking should be confined to an area not used much by children. It's important to remember that simply opening a window is not enough, as many dangerous smoke particles will stay in the air.





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Does my child have glue ear?

The following are common signs of glue ear. Can you spot any of these in your child?

- Changes in behaviour.
- Becoming tired and frustrated.
- A lack of concentration.
- Preferring to play alone.
- Not responding when called.

These signs can often be mistaken for stubbornness, rudeness and being naughty. As a result many children with glue ear are misunderstood or labelled as 'difficult'.

Glue ear can cause temporary deafness, and a prolonged period of time with reduced hearing can affect the way in which a child's speech develops. For example, parts of words may not be pronounced clearly. However, evidence suggests that children catch up from any speech and language delay once they have recovered from glue ear. Children with glue ear may also fall behind at school and become disruptive if they don't have extra support.

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What treatment is available?

If you're worried about your child's hearing, arrange an appointment with your family doctor (GP). Glue ear and related infections are the most common reason for children under five years old to visit their GP. Often, glue ear is associated with a heavy cold and will clear up when the congestion from the cold has gone.

Your GP will examine your child's ears and should be able to tell if they have glue ear. They may describe your child's ear or ears as being 'congested'. Your GP will recommend pain relief if your child is complaining of painful ears. Antibiotics are not recommended for glue ear or for normal childhood ear infections, so your GP will only prescribe these if there are signs of a more serious condition. Your GP can refer your child to the audiology clinic for a hearing assessment. Because glue ear often gets better on its own without any treatment, it is usual to have a three-month monitoring period. Generally 50 to 90% of glue ear cases clear up within three months and 90% are clear within a year.

If the glue ear does not clear up, your GP or audiologist will refer you to the ear, nose and throat (ENT) department at your local hospital.



Hear Glue Ear is an app designed for children aged two to six who are experiencing hearing loss due to glue ear. The app includes songs, games and audiobooks designed to help children to develop speech, language and listening skills and also provides information and progress-tracking for parents. Search 'Hear Glue Ear' in the app store.





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What will happen at the clinic?

An audiologist will examine your child's ears and a further assessment will be carried out. This will include a tympanometry test, which measures how well the eardrum can move. If there is fluid in the middle ear, the eardrum won't move properly. The test should only take about a minute and is completely painless.

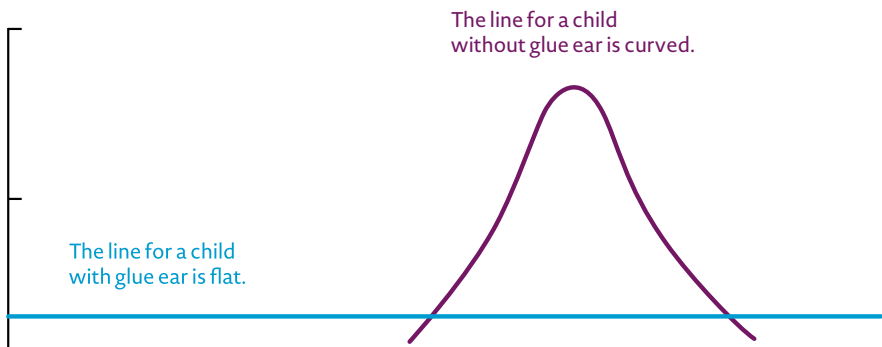
A graph (called a tympanogram, see diagram below) will show the results straight away. A hearing test should also be done to check if the glue ear is affecting your child's hearing and by how much. The tests used will depend on your child's age.



To find out more about hearing tests, download our resource **Understanding Your Child's Hearing Tests** at www.ndcs.org.uk/understand or contact our Helpline to receive a printed copy in the post.

The audiologist or doctor should explain the results of all the tests and discuss the best way to treat your child. You may be offered further monitoring, grommet surgery or temporary hearing aids.

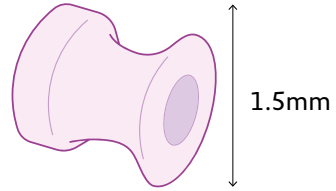
An example of a tympanogram



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Grommets

Grommets are tiny plastic tubes that are put in the eardrum during a short operation in hospital under general anaesthetic. They are inserted after the fluid in the middle ear has been drained away. The grommets allow air to circulate in the middle ear, keep the pressure equal on either side of the eardrum, and stop more fluid from building up.



The surgeon may talk to you about removing your child's adenoids at the same time. Adenoids are glands at the end of the eustachian tubes that sometimes become infected and swollen and block the end of the tubes.

After your child has had the surgery, there's usually just one routine appointment a few weeks later. This will involve a check to see that the grommets are in place and a hearing test to check that your child's hearing is back within the normal range. After that, further appointments would only be made if you report any problems.

Grommets usually stay in until the eardrum has healed and pushed them out. Sometimes the fluid comes back and another grommet operation may be considered. Your ENT doctor should always discuss any risks of operating again with you before you make a decision about your child having another operation.



Our children's comic, **Harvey Gets Grommets**, explains why Harvey gets grommets, what happens when he visits the doctor, and what happens at the hospital when the grommets are put in. You can download the comic to read with your child at www.ndcs.org.uk/glueear or contact our Helpline to receive a printed copy in the post. The comic is aimed at children under 10.

Swimming and bathing with grommets

Your ENT doctor will recommend keeping your child's ears dry for the first 2 to 4 weeks immediately following the surgery. After this, most children with grommets do not need any special precautions and can swim and bathe as usual with grommets in. There are a few children who may be at particular risk of infection related to water entering the ear. If your child is one of these, your ENT doctor may suggest some precautions.

- Try to avoid your child diving or jumping into the water as this increases the outside pressure and forces water through the grommet into the middle ear.
- Use earplugs and neoprene headbands, available from pharmacies or online shops like www.earbandit.co.uk.
- Encourage your child to wear a swimming cap.
- Avoid your child swimming in lakes or non-chlorinated pools. The water in these places usually has a high bacteria count and infection is more likely to occur.
- Be careful when washing your child's hair. Soapy water can slip more easily through the grommet into the middle ear, and if the water is dirty it may infect it. With your child sitting upright in the bath, wash their hair first before body washing. Tilt their head back and rinse the hair off with clean water, then put on a shower cap. This way your child can play in the bath without getting dirty, soapy water in their ear.



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Otovent

Otovent is a device made up of a balloon and a nosepiece. It's designed to encourage the eustachian tube to open. The treatment involves fitting the balloon to the nosepiece, putting the nosepiece against one nostril and keeping the other nostril and mouth closed. The child then blows into the balloon through their nose until it's the size of a grapefruit. It works by using pressure to open the eustachian tube, allowing the fluid to drain from the middle ear.

This is quite a complex task for children to manage and so may not be suitable for very young children. Otovent may be helpful for some older children during the watchful waiting period or while waiting for grommet surgery, and may reduce the chance of needing surgery at all. Otovent is available on prescription. Ask your GP or ENT doctor whether they think it will be suitable for your child.



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Hearing aids

Children's hearing can be affected for long periods of time while waiting to see if the glue ear clears up naturally or while on the waiting list to have the grommet operation. It's important to make sure that a child's speech and education do not suffer during this time, so you may want to consider hearing aids or asking for extra support at school.

Hearing aids can be useful for children with any level of deafness, and there are different types of hearing aid that are suitable for children with glue ear. Most hearing aids work by amplifying (making louder) sound going into the ear. Good quality, digital hearing aids are available free of charge for all children on the NHS.

Most children use behind-the-ear (BTE) hearing aids in each ear, but some children may be offered a bone conduction hearing device (BCHD) instead. This is a hearing device worn on a headband which sends sound directly to the inner ear, bypassing the outer and middle ear (the parts affected by glue ear). If your child struggles to hear with BTE hearing aids, ask your audiologist whether a BCHD might be suitable.



For more information about hearing aids, download **Hearing Aids: For families** at www.ndcs.org.uk/hearingaidsguide or contact our Helpline to receive a printed copy in the post.

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Can complementary remedies help?

In 2008, the National Institute for Health and Clinical Excellence (NICE) published guidance about glue ear for the NHS in England and Wales. Having studied all the research evidence available, they made recommendations on the use of various treatments for glue ear based on which treatments effectively treated the greatest number of children. NICE currently recommends grommets or hearing aids as effective treatments for glue ear.

At the current time NICE does not recommend using:

- steroids
- antihistamines
- decongestants
- antibiotics
- homeopathy
- cranial osteopathy
- acupuncture
- massage
- probiotics
- changing the diet (for example, to reduce dairy)
- immunostimulants.

For some treatments, there may be very little or poor quality evidence available. Some may also be offered by the alternative or complementary health sector, which does not tend to produce the type of scientific evidence reviewed by NICE.



To read the NICE guidance about glue ear in full, visit www.nice.org.uk/guidance/cg60.

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Can my child fly with glue ear?

Generally, children with glue ear don't experience problems flying, although sometimes doctors don't recommend it depending on the current condition of the ears.

The build-up of fluid in the middle ear can expand during take-off and, more commonly, landing due to changes in cabin pressure, causing discomfort. The risk is that the fluid expands so much, the eardrum perforates. If this happens a doctor should prescribe antibiotics, but there is normally no long-term damage.

Before flying, we strongly recommend seeing your GP who may prescribe decongestant medication.

Eating and drinking during take-off and landing will help open your child's eustachian tubes and prevent discomfort. Special ear plugs known as 'EarPlanes' (available from pharmacies) can help to reduce discomfort from changes in air pressure.

Flying with grommets is fine. The grommets prevent the discomfort caused by changes in cabin pressure, so your child will be quite comfortable during take-off and landing.



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How can I make hearing easier for my child?

It's important that glue ear is identified as soon as possible, and that parents and teachers understand how it can affect a child's hearing. To make listening easier for your child, you should:

- get your child's attention before you start talking
- make sure you face your child as much as possible and keep eye contact
- check that background noise is kept to a minimum
- speak clearly, without shouting, and maintain your normal rhythm of speech.

The teacher or school nurse may realise that your child is having problems, but may not be aware that this is because of their hearing. You should tell the teacher about your child's hearing so that arrangements can be made in school to help them.





It's important that your child is able to sit near the teacher in the classroom, that they understand what is said, and that they are not made to feel awkward about asking for things to be repeated. For more information about how to communicate with a child with hearing loss, visit www.ndcs.org.uk/deafaware. You may also want to direct your child's teacher to our information for professionals at www.ndcs.org.uk/professionals.



See our webpage www.ndcs.org.uk/glueear to find information about what schools must provide for children with a medical condition by law and how you can ensure this happens.



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Further information and support

If your child has glue ear we're here for you.

We offer information and support to parents and professionals.

Freephone Helpline:

0808 800 8880 (voice and text)

helpline@ndcs.org.uk

www.ndcs.org.uk/livechat

Open Monday to Friday 9am to 5pm





About us

We're here for every deaf child who needs us – no matter what their level or type of deafness or how they communicate.

Visit our website www.ndcs.org.uk or contact our Freephone Helpline on **0808 800 8880** (voice and text) to find out how we can support your child at every stage of their life. Become a member for free and you'll be able to:

- download or order our free information
- come to our events
- be a part of our online community
- borrow equipment through our technology loan service
- read about other families' experiences in our quarterly magazine and email updates
- access support.



National
Deaf Children's
Society

**We are the National Deaf Children's Society,
the leading charity for deaf children.**

Freephone Helpline:

0808 800 8880 (voice and text)

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