



# 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.

We use the term 'parent' to refer to all parents and carers of children.



## 1

## Introduction

Glue ear is one of the most common childhood illnesses. Between 10% and 20% of school children in East Africa and South Asia have had glue ear at least once. Glue ear is more common in slums than in well sanitised urban cities, and children under the age of five are most often affected.

Glue ear is usually temporary but for some it can continue into adolescence. It's often linked with ear infections but can sometimes develop unnoticed.

Glue ear can cause temporary deafness and delayed speech development in young children. It can also affect children's behaviour and their progress at school.

This booklet provides information on what glue ear is, how to recognise if your child has the condition, and what can be done to help if your child is diagnosed with glue ear.





## 2

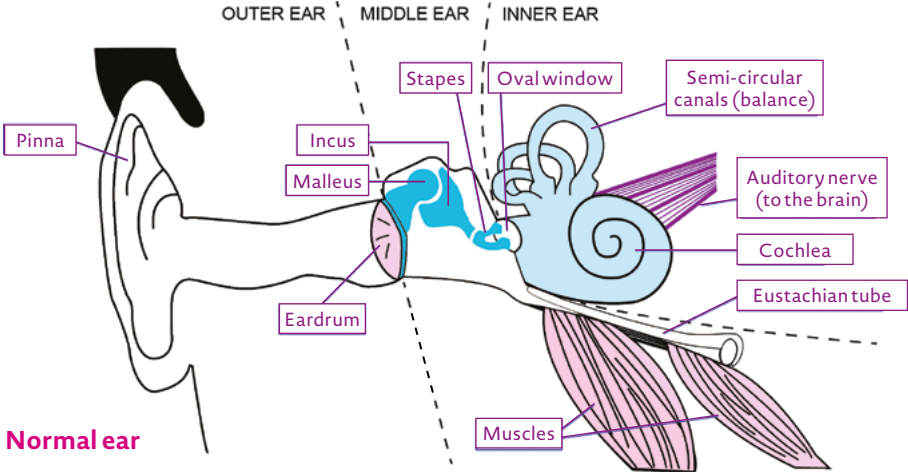
### What is glue ear?

Glue ear happens when the middle ear (the part behind the eardrum) becomes filled with sticky fluid.

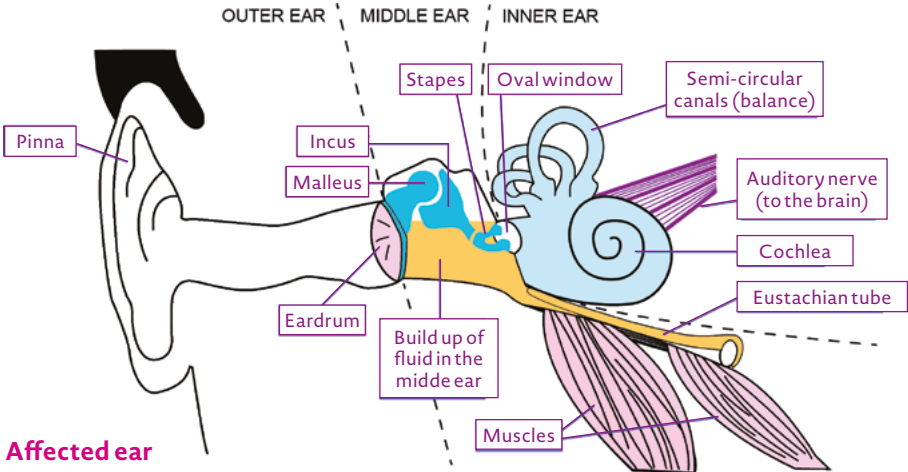
For ears to work properly the middle ear needs to be kept full of air. The air travels through the eustachian tube which runs from the back of the throat to the middle ear. If the eustachian tube becomes blocked, air can't enter the middle ear. When this happens, the cells lining the middle ear begin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





Normal ear



Affected ear

 If you would like more information about how the ear works and glue ear, go to our website and search for 'glue ear'.





## 3

## What causes glue ear and what can be done to prevent it?

There are many different things that can contribute to glue ear, such as colds and flu, allergies, pollution, passive smoking or bathing and swimming in dirty water. 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 help to protect against glue ear even when breastfeeding has stopped.

There is an increased risk of glue ear when the baby feeds lying down as the liquid pools in the back of the mouth. The liquid can then back up into the ears through the eustachian tube. The bacteria can then enter through the tube into the ear and cause an ear infection and glue ear.



## Smoke free environment

Research has shown that children are more likely to get ear infections and glue ear if they're often in a smoky environment caused by cigarette or tobacco smoke. Additionally, some families may need to have their child with them whilst cooking in a very smoky kitchen. Children exposed to smoky homes caused by the use of wood, coal and oil fires are more likely to experience upper respiratory tract infections. The respiratory tract includes the sinuses, throat, airways and lungs, and infections in these areas can lead to ear infections.

Parents should try to make their children's environment smoke free. If it isn't possible to make the environment entirely smoke free, then children should be kept away from smoky environments as much as possible. It's important to remember that simply opening a window is not enough as many dangerous smoke particles will stay in the air.



## Malnutrition

Malnutrition which causes your child to be underweight or to have stunted growth, is associated with poor immune function which puts malnourished children at a greater risk of developing ear infections and glue ear.

## Home remedies

Home remedies such as putting oil or other substances in your child's ear to treat an earache increase the risk of ear infections and other issues and are not recommended.







## 4

## 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.
- › Continually suffering from cold and cough.
- › Clumsiness or balance problems.
- › Pain in the affected ear or frequent ear infections.
- › Problems with speech, language or social interactions.

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, provided children are supported in their speech and language development, they should be able to catch up any delay once they have recovered from the glue ear. Children with glue ear may also fall behind at school and become disruptive if they don't have extra support.



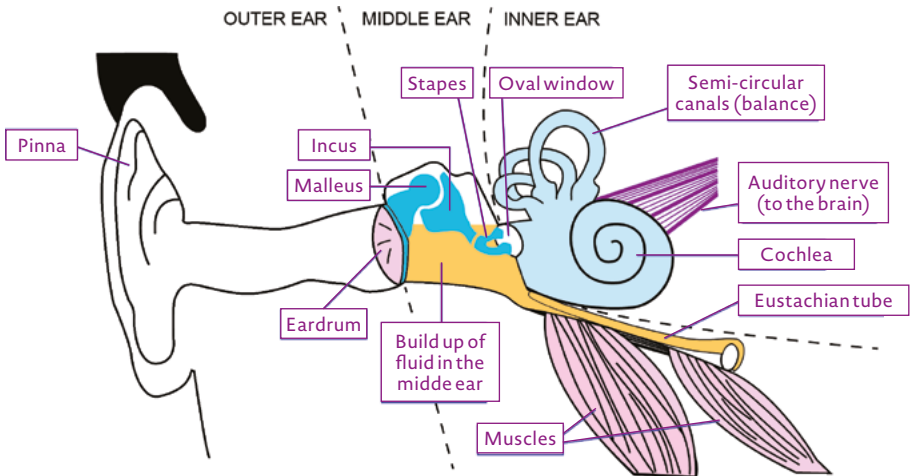
## 5

## What treatment is available?

If you're worried about your child's hearing, arrange an appointment with a doctor or, if possible with the ear, nose and throat (ENT) department at the local hospital or medical centre.

Glue ear and related infections are the most common reason for children under five years old to visit the doctor. Often glue ear is associated with a heavy cold and will clear up when the congestion from the cold has gone.

Your doctor 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 doctor 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 doctor will only prescribe these if there are signs of a more serious condition. Your doctor can refer your child to the audiology clinic, professional services specialising in hearing loss, for a hearing assessment if there are facilities available in your area. Because glue ear often gets better on its own without any treatment, it is usual to have a monitoring period.

If the glue ear does not clear up your doctor may refer you to a specialist ear doctor at your local hospital if there are facilities available in your area. You might have to find a specialist ear doctor in the next district or in a larger city.

Apart from the temporary hearing problems that glue ear can cause, there are not normally any long term medical problems. However, glue ear and ear infections can sometimes result in serious and long-term complications. If your child has any of the following symptoms it is recommended that you seek urgent medical care:

- › severe pain in or around the ear
- › discharge (leaking) from the ear
- › redness or swelling around the ear
- › fever
- › dizziness
- › facial palsy (drooping and inability to move one side of the face)

## 6

## What will happen at the hospital or clinic?

A specialist ear doctor will examine your child's ears and a further assessment will be carried out.

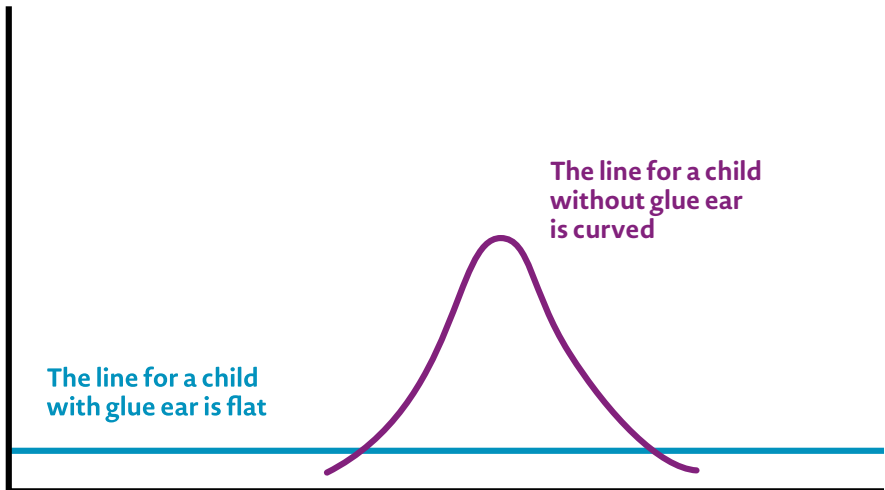
There are a number of different things which a doctor might suggest for your child. Some of these will depend on what is available locally.



A tympanometry test is a test that 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.

### An example of a tympanogram



A hearing test should also be done to check if the glue ear is affecting your child's hearing and, if so, by how much. The tests used will depend on your child's age.

Whatever tests your child has, the ear specialist should explain the results to you and discuss with you the best way to treat your child.

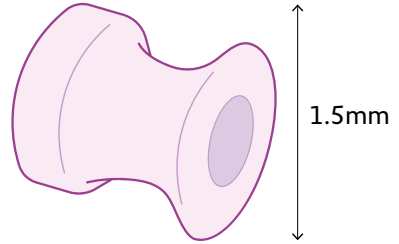
Tympanometry and hearing tests are available in cities but the cost will vary depending on whether the hospital is government funded or privately run.



## 7

## Grommets

If your child's glue ear doesn't clear up by itself, the doctor may be able to offer some other procedures to help make your child's glue ear better. These will not be offered to all children and will depend on the severity of the condition and the availability of the procedures in your areas.



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 and stop more fluid from building up.

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 doctor should always discuss any risks of operating again with you before you make a decision about your child having another operation.






## Removal of adenoids


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


## Swimming and bathing with grommets

Your doctor will recommend keeping your child's ears dry for the first 2–4 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 doctor may suggest some precautions.



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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.
- 

Avoid your child swimming in lakes or pools. The water 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, wash their hair first before body washing. Tilt their head back and rinse the hair off with clean water.

Grommets and removal of adenoids are done regularly by ENTs in developing countries, the cost would vary depending on whether the hospital is government funded or privately run.

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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 inner 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 while waiting to see if the glue ear clears up, or while waiting for grommet surgery, and it may reduce the chance of needing surgery at all. Ask your doctor whether otovent is available in your country and whether they think it will be suitable for your child.

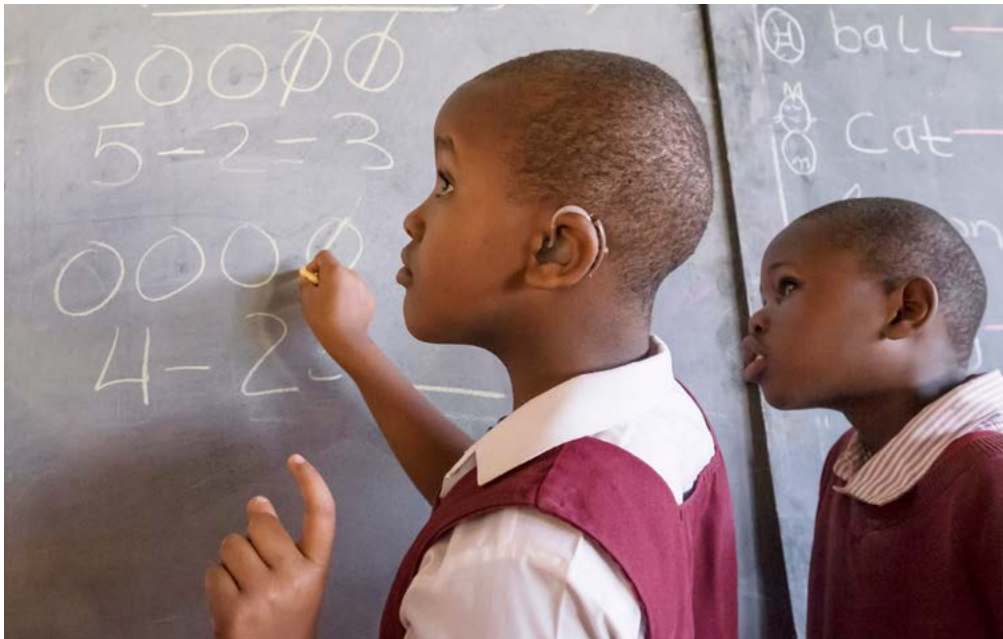
Photo by [www.otovent.co.uk](http://www.otovent.co.uk)

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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 a grommet operation. It's important to make sure that a child's speech and education does 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 aids that are suitable for children with glue ear. Most hearing aids work by amplifying (making louder) sound going into the ear. Most children use behind the ear hearing aids in each ear. The hearing aids will need to be fitted by a qualified practitioner to make sure they are right for the child.



# 10

## 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 know how it can affect children's hearing. Basic communication tips can help to make your children understand more easily, such as:



getting your child's attention before you start talking – try waving or tapping their shoulder



making sure you face your child as much as possible and keep eye contact



making sure there is sufficient light for your child to see your face



using your hands – point at what you're talking about



checking that background noise is kept to a minimum



speaking normally – not too slowly or too loudly.



Your child's teacher 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, so that they understand what is said and they are not made to feel awkward about asking for things to be repeated.







## About us

We are the UK's leading international charity for deaf children in developing countries. We work to remove the barriers faced by deaf children and young people in developing countries. We have been working with partner organisations in South Asia, East Africa and Latin America for over 15 years, facilitating work that enables deaf children and young people to be fully included in their family, education and community life.

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Deaf Child Worldwide is the international arm  
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