



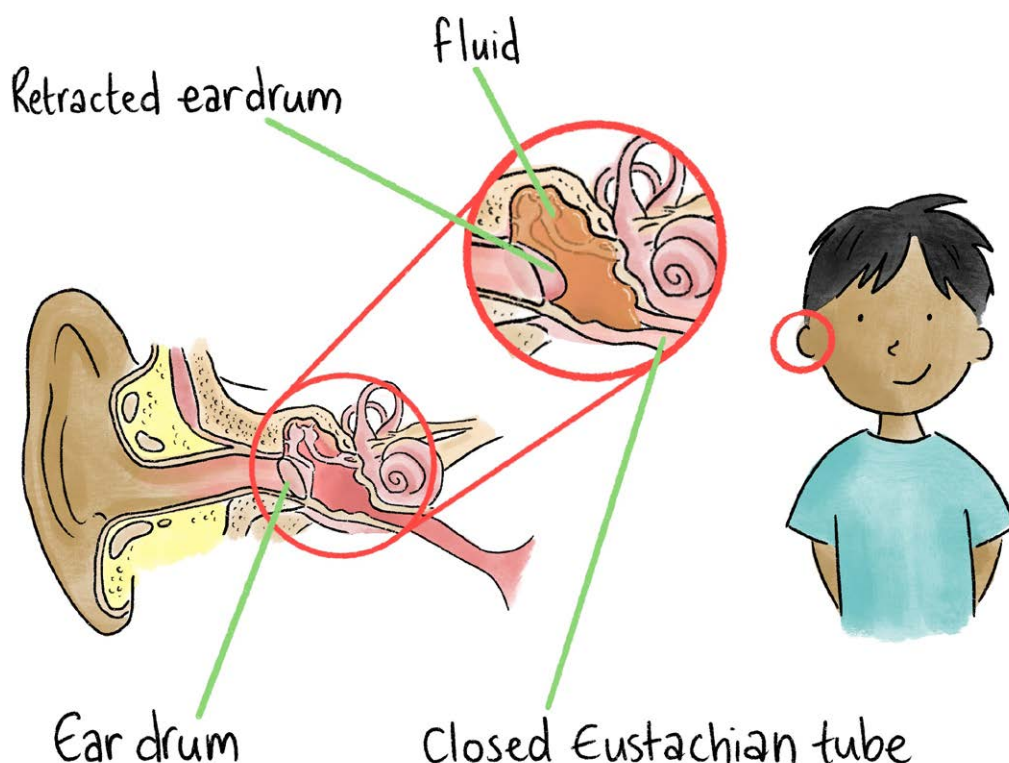
Glue Ear

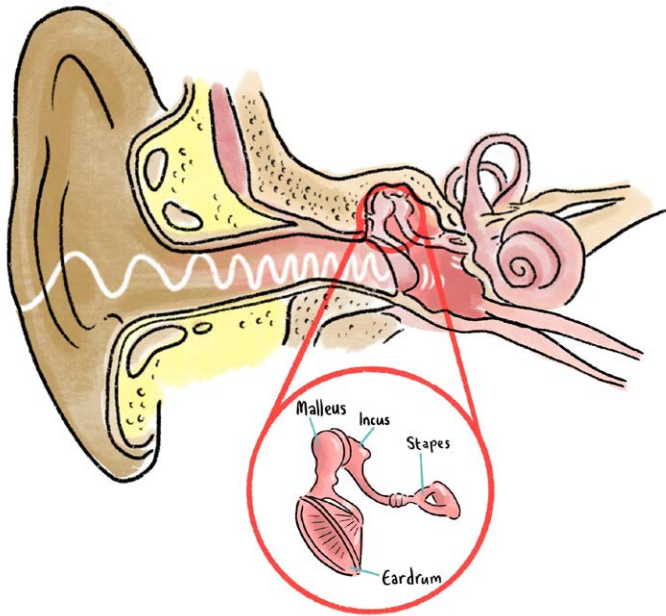
Information for parents and carers

Key facts

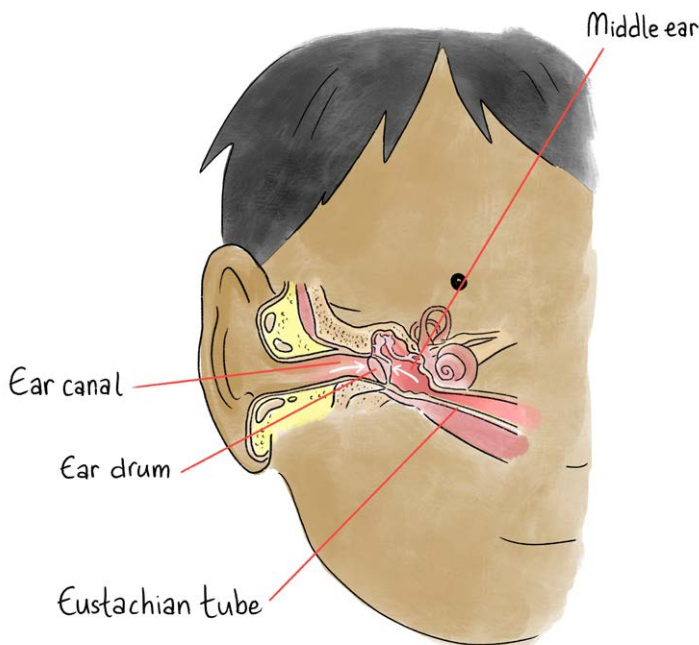
Glue ear is a condition where the middle ear fills with fluid instead of air.

- It is also known as otitis media with effusion (OME).
- It can affect one or both ears.
- It usually occurs in young children between 2 and 5 years.
- Some children develop glue ear after a cold, cough or ear infection, the extra mucus that is made can build up in the middle ear and not drain well.

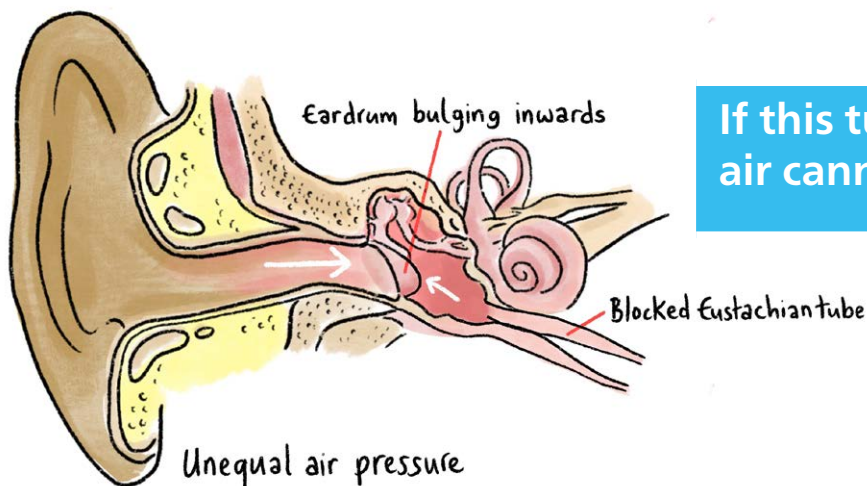




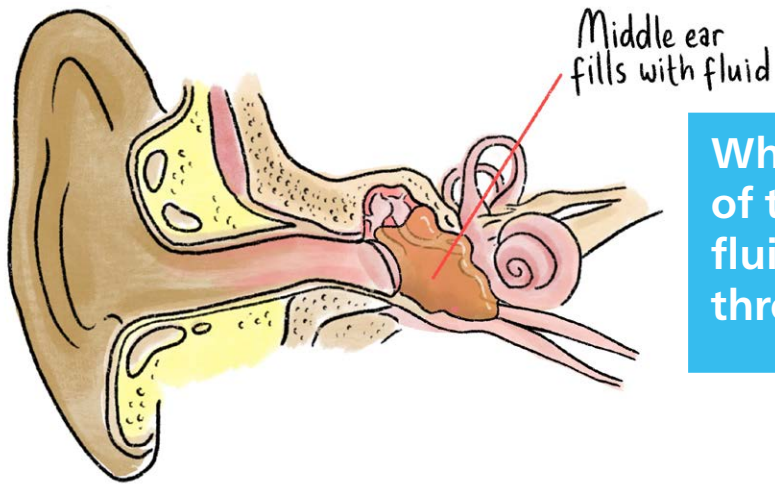
Normally sound waves produce vibrations of the ear drum which are transmitted to the inner ear by three little bones called the ossicular chain.



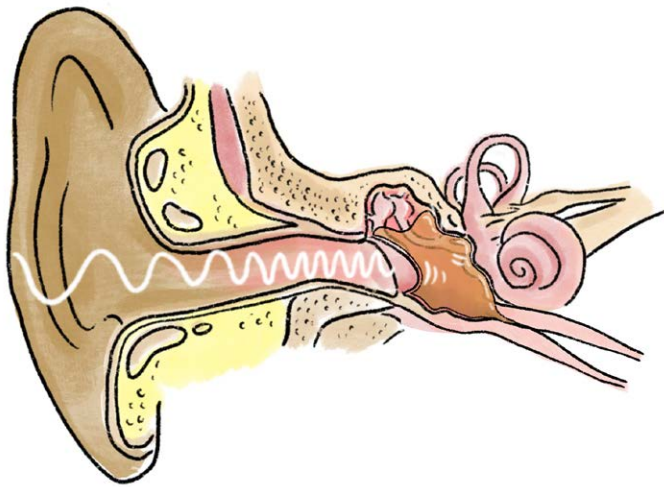
For ears to work properly the middle ear needs to be kept full of air. The air travels through the Eustachian tube which runs from the middle ear to the back of the throat.



If this tube becomes blocked, air cannot enter the middle ear.



When this happens, the lining of the middle ear produces fluids which cannot drain away through the tube.



If fluid accumulates in the middle ear it can stop the ossicular chain and ear drum moving freely so the sound waves are not transmitted as well.



This makes sounds difficult to hear, it can be like listening to the world with both fingers stuck in your ears!

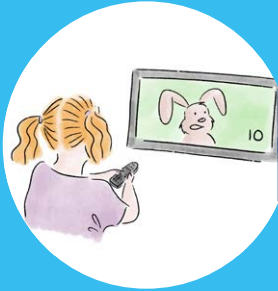
Symptoms of Glue Ear



Reduced hearing is the main symptom, this can range from mild to severe.



Poor concentration



Listening to TV at a high volume



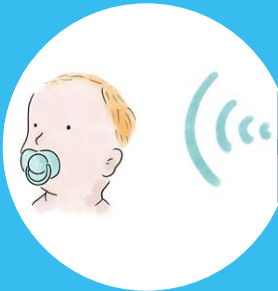
Mispronouncing words



Saying 'pardon' more often



Change in behaviour; frustrated or withdrawn



Baby not turning to sound



Not responding when their name is called



Earache is usually intermittent and mild



Preferring to play alone



Change in progress at school

How long will my child have glue ear?

Most cases of glue ear will resolve without treatment after 3 months. In nearly all cases, once the fluid has gone, hearing returns to normal and most children with speech and language delays will catch up. A small number of children may need extra help from a speech and language therapist.

As children grow their Eustachian tube widens and drainage of the middle ear improves so they are less likely to develop glue ear. Most children will outgrow it by 8 years.

Caring for your child at home

There are lots of things you can do at home to help your child at home while their hearing is reduced

- Talk clearly and more loudly than usual (you don't have to shout)
- Attract your child's attention before speaking to them
- Try to speak from behind your child
- Talk directly face to face and down at their level
- Cut out background noise when you talk to your child, e.g. turn off the TV
- Understand your child's frustration or anger may be due to their reduced hearing
- Discuss the problem with their teacher, they will be able to make some changes to help such as moving your child to sit at the front.
- Daily reading helps language development. Books with explanatory pictures are useful

Children are more likely to get ear infections and glue ear if they are exposed to smoke.

Make sure your child is never exposed to tobacco smoke. Passive smoking can seriously damage children's health. Remember, smoke remains on your clothes when you smoke anywhere, including outside.



What tests should I expect the doctor to do?

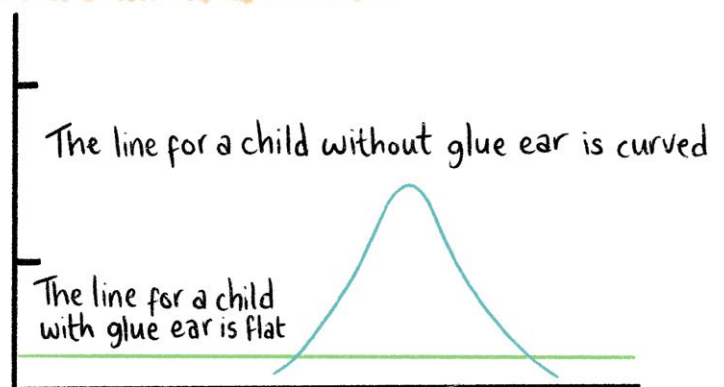
Your doctor will ask you questions about your child's symptoms and general health. They will examine your child's ears and should be able to tell if glue ear is present.

Tympanometry

Tympanometry is a test that measures how well the ear drum can move. The audiologist will put a small probe, which looks like an earphone, into each ear. A small device attached to the probe will push air into the ear. If there is fluid in the middle ear, the ear drum will not work properly. A graph, called a tympanogram, will show the results straight away.



An example of a tympanogram



Hearing Test

A hearing test should be performed to check whether the fluid is affecting your child's hearing. It is recommended that children with glue ear are monitored with repeat tests every 3 months. The tests used will depend on your child's age.

The volume and pitch of the sound will be varied to determine the quietest sounds your child is able to hear.



Visual reinforcement audiometry

Age: 6 months to 2 and a half years.

Your child will sit on your lap or a chair while sounds are presented. They will be taught to link the sound to a visual reward such as a toy or computer screen lighting up.



Play audiometry

Age: 18 months to 5 years

Sounds are be played through headphones and your child will be asked to perform a simple task, such as stacking a brick when they hear the sound.



Pure tone audiometry

Age: >5 years

A machine generates sounds at different volumes and frequencies. The sounds are played through headphones and your child is asked to respond when they hear them by pressing a button.

What treatment is available?

- No treatment is usually advised as most will clear within 3 months
- May need to refer to an ear, nose and throat specialist

Ear, nose and throat specialist

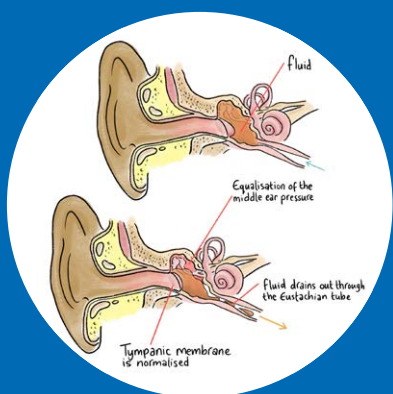
A specialist doctor will examine your child's ear and they may carry out some extra tests.

Balloon treatment



A special balloon is blown up by the child using their nose, this is called auto-inflation. It puts pressure into the nose and may help to open up the Eustachian tube and allow better drainage of fluid. The child needs to do this two to three times a day until the fluid clears for about 2-3 weeks.

This should not be carried out if your child has a cough or cold and should be abandoned if it causes pain.



Autoflation with balloon sends air through the Eustachian tube to middle ear which returns pressure to normal.



1

Connect the balloon to the nose piece. Hold the round part of the nose piece firmly against the right nostril with the right hand. Press the left nostril closed with the left hand.



2

Inhale deeply, close the mouth and inflate the balloon until it is the size of a grapefruit by blowing through the nostril.



3

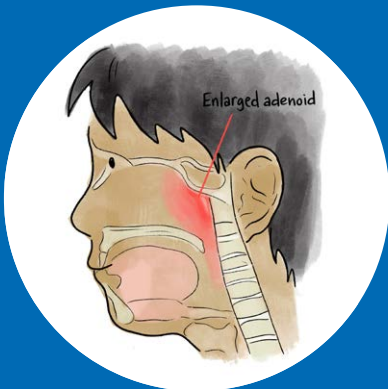
Repeat the procedure with the left nostril. You will know that the treatment works if the child experiences a pressure increase or click in the ear.

Grommets

Some children may require an operation to insert a small ventilation tube called a grommet into the ear drum to allow the air to circulate in the middle ear and stop fluid from building up.



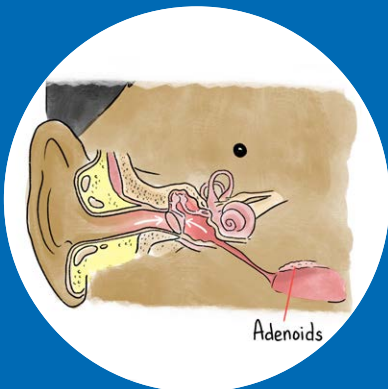
This is a very safe operation and complications are rare. The operation is usually done as a day case. Your child will be put to sleep for a short time (have a general anaesthetic). The fluid in the middle ear is drained and the grommet is inserted. Hearing is improved for as long as the grommet stays in place, which is usually for about 6-12 months. The hole in the eardrum made for the grommet usually heals quickly after the grommet has fallen out.



Adenoid Removal

During grommet insertion the adenoids are usually removed in children over 4 years.

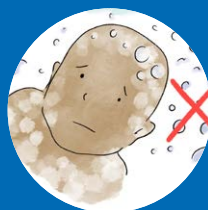
The adenoids are small lumps of tissue at the back of the nose that fight infection and can become enlarged in children. Removing these has been shown to improve how well the grommets work.



Children with grommets



Can go swimming but should avoid diving.



Avoid putting your child's head in soapy water



Can go in a plane

Hearing aids

Hearing aids work by amplifying the sound and are an alternative to surgery for children with persistent bilateral glue ear. Hearing aids may be preferred in

- young children
- children who have tried grommets in the past
- children with Down syndrome



Many parents struggle with keeping hearing aids on their children. As frustrating as it can be to continually replace hearing aids on a squirmy toddler's ears, it is important to keep trying as consistent auditory input is crucial for language learning and development. Here are some tips that may be helpful for encouraging your child to wear their hearing aids.



Make listening fun! Sing songs, read their favourite book, experiment with different sounds around the house



Try a timer. It might just start with 30 seconds, but gradually you can increase the duration of time your child wears the hearing aids before being allowed to remove them.



Try rewards to keep your child motivated.



Decorate the hearing aids with stickers, this can help your child have fun with their hearing aids and take ownership of them.



Try headbands to keep devices in place or hats to cover them and keep your child from removing them