

Treatment of glue ear with grommets

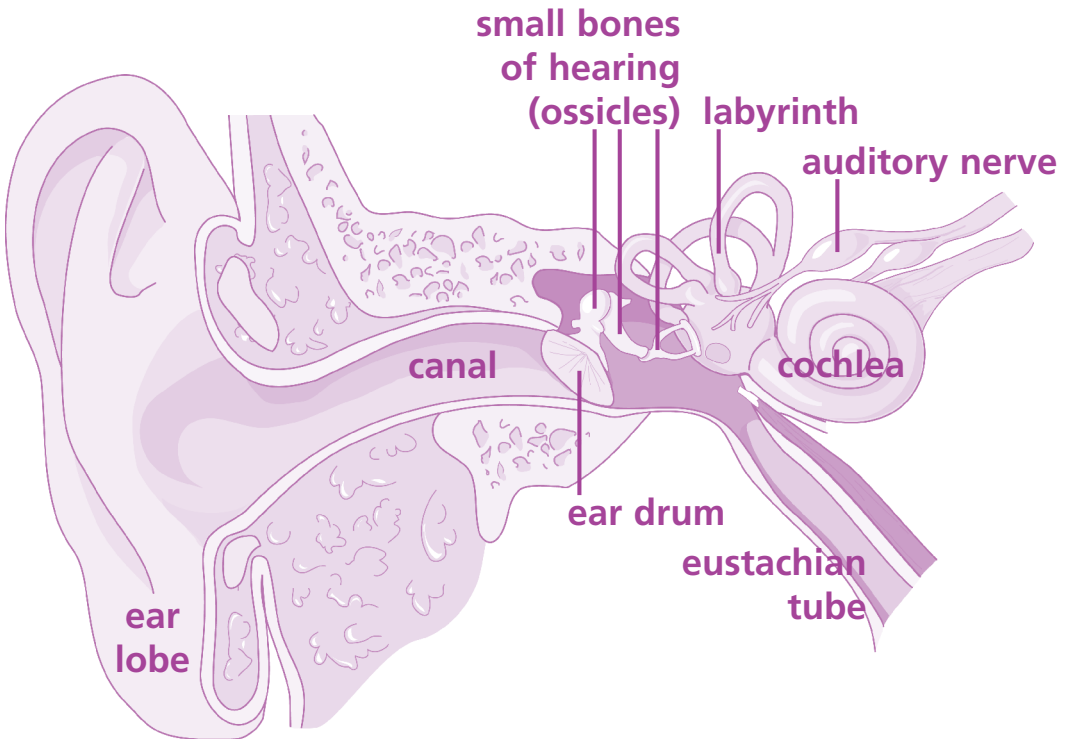
Information for families

Great Ormond Street Hospital
for Children NHS Foundation Trust

This leaflet explains about glue ear, how it can be treated using grommets and what to expect when your child comes to Great Ormond Street Hospital to have them inserted.

How do we hear?

The ear consists of three parts, the outer ear, the middle ear and the inner ear. Sound waves enter the ear canal and cause the eardrum to vibrate. The sound then passes through the middle ear via the three small bones of hearing (ossicles) on to the inner ear, which is filled with fluid. The movement of the fluid in the cochlea stimulates the hair cells inside it to trigger a nerve impulse, which is carried to the brain by the auditory nerve. The brain then interprets these nerve impulses as sound.



What is glue ear?

Glue ear is a very common condition, which usually tends to affect children under the age of seven, most commonly between the ages of two and five. Some children develop glue ear after a cold so it can be more common during the winter months. It is also more common in boys than girls, but at present, we do not know why.

It is also called 'otitis media with effusion', which means the middle ear contains fluid. It occurs when a sticky fluid (glue) builds up inside the ear. This can affect hearing because the parts of the middle ear cannot move freely, although the level of hearing loss is mild to moderate, rather than severe or profound. Some children have 'recurrent' glue ear which means it returns after treatment over a period of some months or years. This can lead to problems in speech and language development, due to these mild to moderate hearing problems.

What causes glue ear and how is it diagnosed?

We are not exactly sure what causes glue ear, but doctors believe it is connected to the Eustacian tube not functioning properly. The Eustacian tube usually keeps the air pressure on both sides of the eardrum equal. If the tube is blocked, this causes the air pressure inside the middle ear to drop. Fluid drains from the surrounding tissue to fill up the middle ear. With time, this fluid becomes sticky and stops the eardrum and ossicles vibrating as they should.

The doctor will start by looking inside your child's ear to see if there is any visible blockage of the ear canals and to check the appearance of the eardrum. This will be followed by some hearing tests to see whether there is any hearing loss and if so, whether it is caused by glue ear. One of these tests (tympanometry) tests the mobility of the eardrum and can give an indication of whether glue is present.

Your child may already have been diagnosed by the time you visit GOSH or the audiology doctors may diagnose it here.

How can glue ear be treated?

If a child has an isolated case of glue ear, it may clear up by itself. However, if it persists and starts to affect their speech, language or schooling, the doctor may suggest treatment using grommets, which are inserted during an operation.

What are grommets and what does the operation to insert them involve?

Grommets are tiny tubes, which are inserted into the eardrum. They allow air to pass through the eardrum, which keeps the air pressure on either side equal. The surgeon makes a tiny hole in the eardrum and inserts the grommet into the hole. It usually stays in place for six to twelve months and then falls out. This is normal and will not affect your child.



Are there any risks?

Every operation carries some risk of infection and bleeding, but as the hole in the eardrum is tiny, this risk is very much reduced. Your child will have a course of antibiotic eardrops to reduce the risk of infection further. Around one in every 100 children may develop a perforated eardrum. If this persists it can be repaired later. Every anaesthetic carries a risk, but this is very small. Modern anaesthetics are very safe and your child's anaesthetist is a very experienced doctor who is trained to deal with any complications.

Are there any alternatives?

For persistent glue ear, grommets are the treatment of choice. Medical treatment with decongestants or steroids has not been shown to be particularly effective unless there are signs of infection or allergy. Antibiotics can help but only in the short term.

What happens before the operation?

You will already have received information about how to prepare your child for the operation in your admission letter. The doctors will explain about the operation in more detail, discuss any worries you may have and ask you to give permission for the surgery by signing a consent form. Another doctor will also visit you to explain about the anaesthetic. If your child has any medical problems, particularly allergies, please tell the doctors about these. Please also bring in any medicines your child is currently taking.

What happens afterwards?

After the operation, your child will return to the ward to fully wake up from the anaesthetic. Once he or she feels comfortable and has had a drink, you will be able to take your child home.

Going home

Your child's ear may ooze or bleed a little for a day or two after the operation. This is normal and should recover within a few days. You should clean any discharge from the outer ear, but do not attempt to clean inside the ear. Your child may have mild earache, which is quite common. You should give him or her pain relief medicines such as paracetamol or ibuprofen according to the instructions on the bottle.

Your child should avoid water getting into his or her ear until the follow up outpatient appointment, six weeks or so after the operation. You will need to take care during hair washing, bathing and showering. It can help to put some cotton wool with Vaseline® on it into your child's outer ear. Do not insert it into the ear canal itself, as this could prove difficult to remove.

The doctor may prescribe eardrops for your child so please give the complete course according to the instructions on the bottle. Further instructions about giving eardrops are available on an information sheet from the Pharmacy or in a podcast available on our website.

Your child will need to come back to the hospital for a check up appointment six weeks after the operation. We will send you details of this appointment in the post.

What is the outlook for children with glue ear?

Once glue ear has been diagnosed and treated, the outlook is very good. Most children with speech and language delays catch up and go on to have a normal school life. A small proportion of children may need extra help from a speech and language therapist.

If you have any questions,
please call Peter Pan Ward
on 020 7829 8825

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in collaboration with the Child and Family Information Group.

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