Portsmouth Hospitals NHS
NHS Trust

Grommets

What is a Grommet?

It is a small plastic tube

Where does it go?

A hole is made in the ear drum and the grommet is placed into the hole and sits in the ear drum to stop the hole from closing.

What does the Grommet do?

It allows air to pass from the ear canal into the space behind the ear drum (the middle ear space). This makes the air pressure the same on both sides of the ear drum. It also allows oxygen to get to the lining of the middle ear space which it needs to stay healthy. These functions are normally performed by the Eustachian tube.

What is the Eustachian Tube?

It is a tube which runs from the middle ear space to the back of the nose. It is usually closed and opens when we swallow or yawn. It allows a constant supply of fresh air into the middle ear space and keeps the pressure the same on both sides of the ear drum. When you 'pop' your ears as you go down in a plane or a lift you are opening the Eustachian tube.

What happens if the Eustachian Tube does not work well?

It is called Eustachian tube dysfunction, and one or more of the following may happen:

- A pressure change can develop behind the ear drum which can be painful, especially at night when children swallow less often.
- Fluid can collect behind the ear drum = Glue Ear
- The ear may become prone to infections
- The ear drum can be sucked inwards and touch the hearing bones.

How common is Eustachian Tube dysfunction?

It is very common in children. In children the Eustachian tube often does not work very well and its function can be further impaired by frequent colds, large adenoids, allergies or parental smoking. As children grow the Eustachian tube function improves.

What is Glue Ear?

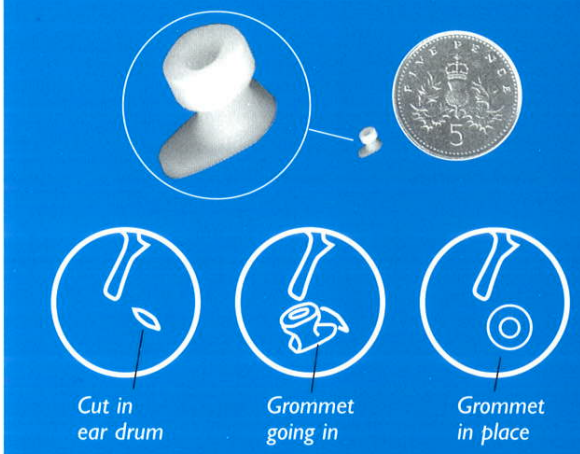
Glue ear is when fluid collects behind the ear drum. The fluid can be very thick and viscous hence the term 'glue' ear. Or the fluid may be thin and 'serous' hence the term serous otitis media. These terms are often used interchangeably.

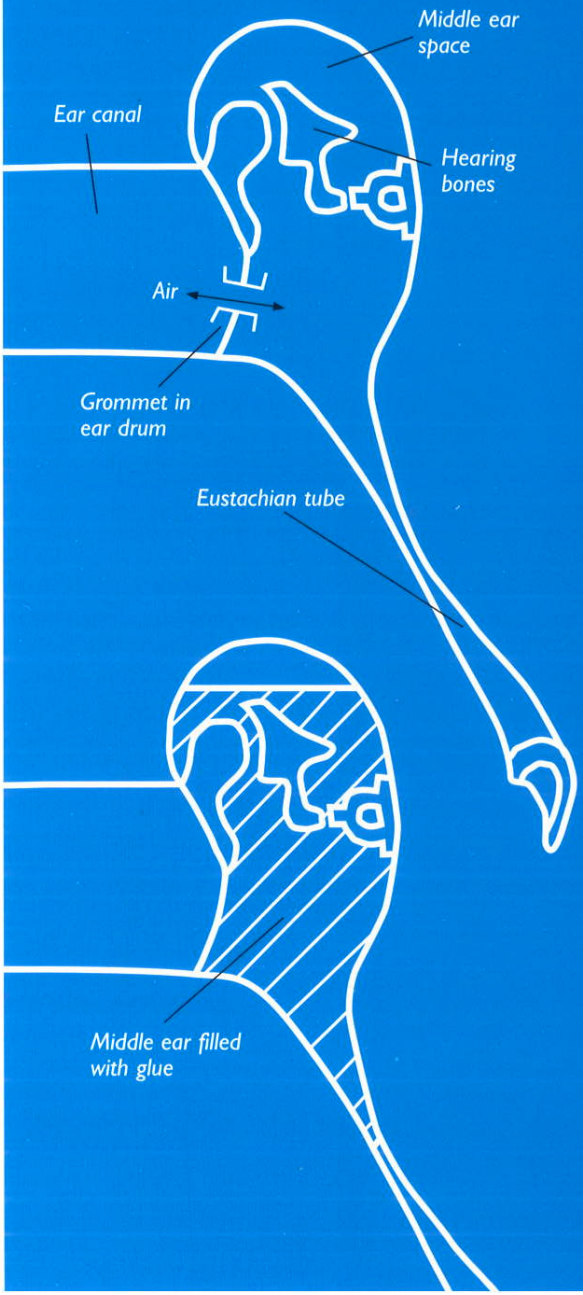
How can Glue Ear affect my child?

Glue ear may have no detrimental effect and be an incidental finding. Alternatively glue ear can cause:

- mild to moderate hearing problems
- recurrent ear infections
- a deformed ear drum

The deafness may interfere with speech development and may cause behavioural problems.





How common is Glue Ear?

It is extremely common in children but it usually settles by itself in a short time. However in some children it can go on for many months or even years. It is impossible to predict how long the glue ear will last.

Treatment

What is watchful waiting?

When glue ear is diagnosed a period of waiting and watching is advised to see if the glue ear will settle by itself. At least three months is the recommended time. If there is any doubt about the hearing a hearing test should be performed. If the problems from the glue ear are minimal then watchful waiting can be continued.

Does Glue Ear have to be treated?

No. If it is not causing any problems glue ear does not have to be treated.

When is treatment recommended?

Treatment may be recommended if the glue ear is causing one or more significant problems such as

Deafness

Recurrent ear infections

A very deformed ear drum

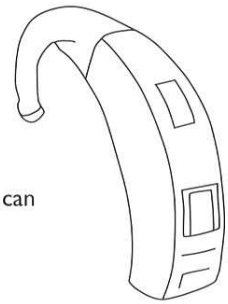
Problems with speech and behaviour will also influence the decision to treat.

Are there non-surgical treatments?

There are no drugs which have been shown to effectively cure glue ear. There is some evidence that antibiotics may help speed resolution in some children.

An **Otovent** is a system where the child regularly tries to blow up a balloon with their nose.
This may help some children.

If deafness is the main problem the child can use a **hearing aid**.



What is the surgical treatment?

Inserting **Grommets** is a very effective treatment for glue ear. It using returns hearing and often stops recurrent ear infections

Is a pre-operative hearing test important?

Yes. It is essential. Before grommet surgery your child must have at least one and often two hearing tests

What does the surgery involve?

Surgery is performed under a general anaesthetic and as a day case. Your child will be admitted to the ward or day surgery unit on the day of surgery. They can eat up to six hours before the surgery and can drink water or squash up to two hours before the surgery. You may accompany them to the anaesthetic room. After the surgery which takes about 20 minutes they will go to the recovery room. They will then come back to the ward or day surgery unit and may go home a couple of hours later. They should have the following day off school.

What are the risks of Grommet surgery?

The risk of complications from grommet surgery is **very low.**

- The ear drum occasionally reacts to the grommet and causes a discharge which may mean that the grommet needs to be removed with a further operation.
- When the grommet comes out it may leave a hole in the ear drum - about a 2% risk. This may need a further operation to close the hole.
- Grommets can be associated with some scarring of the ear drum. This rarely interferes with hearing.
- Occasionally the grommet will not come out by itself and will need another operation to remove it.
- Occasional ear discharge can occur which may need treatment with antibiotics or ear drops.

The vast majority of operations are problem free.

What happens after the surgery?

Sometimes your child will be given some ear drops to take but this is not routine. There may be a little bit of oozing from the ears in the first couple of days but this should settle. You must keep the ears dry from dirty bath or shower water for the whole time the grommets are in. Use cotton wool rubbed in Vaseline or ear plugs. You will be seen in the clinic at 6 to 12 weeks after the surgery when the ear will be checked and a hearing test performed.

What about follow up?

Everyone will have a follow up appointment appointment for the ENT Clinic and for a hearing test. This should be about 6 weeks after the operation. If there was anything unusual about your child's ear problem such as a very deformed ear drum or a continued hearing loss, your child will be followed up regularly in the out patients clinic. If the hearing has returned to normal and any infections have stopped then your child will be seen on a yearly basis until the grommet has come out and the problem has resolved. You will also be given an Open Appointment, so if there are any problems the GP can not sort out or you think that the grommets have come out and the problems have returned then you can phone the outpatients clinic directly and arrange a follow up appointment at the hospital.

Is it important to have a hearing test after the Grommets?

Yes. It is very important to have a hearing test within 3 months of having the grommets. A few children have a nerve deafness as well as the glue ear deafness and if a hearing test is not performed this nerve deafness may be missed and your child would continue to suffer with a hearing problem. **If a hearing test has not been arranged please enquire as to why not.**

What about swimming?

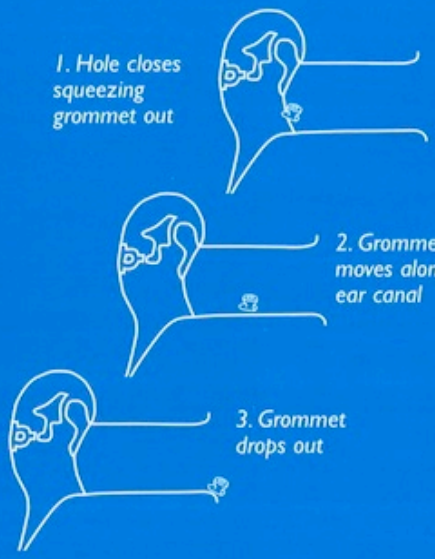
Your child should not swim for the first six weeks until the grommet has been checked in the post-operative clinic visit. After that time they can swim in a chlorinated swimming pool. There is no evidence that swimming in a chlorinated swimming pool increases the risk of ear infections. Your child should avoid diving in or swimming deep under water as this increases the chance of water being forced through the grommet.

What about Flying?

There is no problem with flying after grommets have been inserted.

Does the Grommet 'cure' Glue Ear?

No. The grommet gets rid of the fluid and allows the ear to return to working normally but it does not cure the underlying cause of the glue appearing in the first place. This is probably due to Eustachian tube dysfunction (see above). The grommet acts as an alternative Eustachian tube. In many children the natural Eustachian tube will mature and start to work again during the time the grommet is in place so that when the grommet comes out the ear will continue to work normally. However, in up to 25% of children when the grommets come out the Eustachian tube may still not be fully functioning, and some of those children will develop glue ear again and may need another set of grommets. A few children will have poor Eustachian tube function for a number of years and an even smaller proportion will continue into adult life with ear problems.

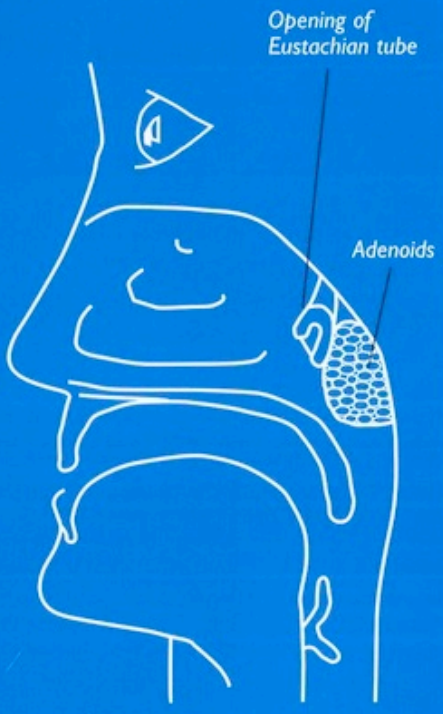


What happens to the Grommet?

After a while the hole in the ear drum closes and the grommet is squeezed out into the ear canal. It then slowly moves along the ear canal and drops out of the ear often in a lump of ear wax. You may not notice this has happened. Grommets usually stay in the ear drum for about 9-12 months although it can vary from a couple of months to a couple of years.

How effective are Grommets for treatment of recurrent ear infections?

Some children with recurrent ear infections have glue ear and some do not. Despite this grommets are often effective at stopping recurrent ear infections altogether. However there are children in whom the grommets do not stop the ear infections but make them much more tolerable. In an ear infection pus builds up behind the ear drum stretching it and often causing severe pain. the ear drum can then burst and the pus comes out. When the child with a grommet in gets an ear infection because there is already a hole in the ear drum (the grommet) they will avoid the build of pressure and usually present just with an ear discharge and without pain or being unduly unwell. This will then settle spontaneously or with treatment using antibiotics or ear drops.



What about adenoids?

The adenoids are at the back of the nose next to the opening of the Eustachian tubes. Enlarged adenoids may interfere with Eustachian tube function and be one of the causes of glue ear. If your child suffers with nasal obstruction, mouth breathing and snoring then the surgeon may suggest removing the adenoids (adenoidectomy) at the same time as inserting the grommets. Adenoids may harbour bacteria and be associated with recurrent ear infections so adenoidectomy may be discussed where ear infections are the main reason for surgery. In children who have repeated grommets the adenoids may be looked at and removed even if there are no nasal symptoms. The surgeon will discuss the pros and cons of adenoidectomy with you. After adeniodectomy there is a very small risk of bleeding. However if you meet certain criteria then adenoidectomy can also be performed as a day case. If not then adenoidectomy will require an overnight stay on the ward.

The above comments are generalisations. Every child is an individual and is treated as an individual. The circumstances for your child might be different from those discussed above in which case the surgeon will explain these differences to you. If you are at all unhappy or you do not understand the reasons why things are being done or what is being done or you have any questions at all then please do not hesitate to ask the surgeon or the nurses and we will do our best to answer your questions.

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Useful Telephone Numbers