

Patient information from BMJ

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Grommets

This information explains what you can expect if your child has an operation to put grommets in his or her ears.

It explains how the operation is done, how it can help, what the risks are, and what to expect afterwards.

Bear in mind that procedures can vary between hospitals. You can use our information to discuss your child's treatment with the doctors and nurses treating them.

What are grommets?

Grommets are a treatment used for a type of ear problem called **glue ear**. The medical term for glue ear is **otitis media with effusion**. It happens most commonly in young children, but adults sometimes get it, too.

Glue ear happens when the middle part of the ear canal fills up with fluid. It's not always clear why some people get glue ear, but causes are thought to include:

- infections
- problems with the eustachian tube (the tube that runs between the middle ear and the back of the throat), and
- inflammation (swelling) of the middle ear.

It's normal to have some fluid in the middle ear. It usually drains through the eustachian tube to the back of the nose and throat.

In small children the eustachian tube is narrow and can easily become blocked - often after they have a cold. If this happens, the fluid in the middle ear can't drain away and becomes thick and sticky.

The main problem that glue ear causes is **difficulty hearing**. This can affect how your child learns in school, and how he or she interacts with family and friends.

Grommets are small tubes that can be put inside children's ears to let air flow in and out of the middle ear. This helps to control the pressure in the middle ear, and this stops fluid from building up.

Why might my child need grommets?

Because glue ear tends to get better by itself over time, there is some doubt whether grommets are worthwhile in the long run. They don't cure glue ear. But they can help some children's hearing improve more quickly than if they didn't have them fitted.

Doctors usually advise that children with glue ear wait for a while before having grommets inserted, to see if the problem clears up by itself. This approach is called **watchful waiting**.

Doctors only tend to suggest grommets if your child has:

- had glue ear for at least three months
- had ear infections several times, one after another
- lost 25 to 30 decibels of hearing in the less affected ear. Decibels are a way of measuring how loud a sound is. For example, if your child has a hearing loss of 30 decibels, normal conversation will sound like a soft whisper.

Grommets aren't usually recommended if your child has hearing loss in only one ear.

If your child has an ear infection, a cold, or a sore throat, his or her **adenoids** can get infected and swollen. The adenoids are small lumps at the back of children's noses. They're part of the body's system for fighting infection.

Swollen adenoids can block the openings of the eustachian tubes, which can make glue ear worse. Sometimes, surgeons take out the adenoids when they put grommets in. Taking out your child's adenoids is a bigger operation than putting in grommets.

What will happen?

The operation to put grommets in takes about 20 minutes. Younger children are usually given a general anaesthetic to make them sleep during surgery, but older children can have a local anaesthetic. They'll be awake but they won't feel any pain.

During the operation:

- the surgeon tilts your child's head to one side, opens the ear canal using an instrument called a speculum, and looks into the ear with a microscope
- the surgeon then makes a tiny cut in the lower part of their eardrum. The fluid that has built up in their middle ear drains out, helped by a suction tube
- once all the fluid has been sucked away, the grommet is put in through the hole. Grommets are tiny tubes. One end stays on each side of your child's eardrum. This keeps the hole open, and lets air into your child's middle ear
- your child's head is then tilted the other way, and the surgeon repeats the operation on the other ear.

Grommets are a few millimetres long and made of plastic (a millimetre is about 1/25 of an inch).

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There are different types designed to stay in your child's eardrum for different lengths of time. When deciding what type of tube to use, your doctor will think about how long your child is likely to have glue ear.

Most doctors use tubes that are designed to fall out after 6-12 months.

Your child won't need any stitches or dressings and probably won't have to spend a night in hospital.

How might grommets help my child?

Grommets don't cure glue ear. But they can help to clear the fluid from inside your child's ears and improve their hearing until they grow out of glue ear.

Grommets can help your child to hear better. But in some children the difference might be fairly small, while others notice a big difference.

Grommets can help in other ways. For example, as well as having improved hearing, your child might:

- get fewer ear infections
- feel happier and do better in school. But this is hard to study accurately because most children grow out of glue ear fairly quickly
- stop having problems with glue ear more quickly than they would without grommets.

Glue ear takes longer to clear up when children have family members who smoke. This is true even if they have grommets inserted.

What are the risks?

All operations carry risks. Your surgeon should talk you through them before the operation so you are prepared for what might happen. Your child's blood pressure, heartbeat, breathing, and temperature will be closely monitored during the procedure.

One common problem in any type of surgery is side effects caused by anaesthetics. It's fairly common for children to feel nauseous (sick) for a while after the operation.

But some children have an allergic reaction to anaesthetics. This is rare but it can be serious. You must tell the doctor before the operation if your child has any **allergies**.

Common problems that can happen after surgery to insert grommets include:

- earache for a while after the operation. Rarely, the earache can last the whole time that the grommets are in place
- discharge: it's common to have some oozing from their ear (a discharge) for a while after the operation
- infection: antibiotic drops usually clear up any infection that can happen around where the grommets were put in. Infected tubes can sometimes become blocked and might need to be removed

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- problems with the eardrum: grommets can cause minor problems with the eardrum, such as stiffening. This can slightly affect your child's hearing, but probably not enough that he or she would notice
- blocked tubes: grommets sometimes get blocked with dried blood or mucus.

Less-common problems after having grommets fitted include:

- bleeding: if your child has his or her adenoids removed at the same time as having grommets inserted, excess bleeding can happen in the throat. If this happens, your child will have emergency treatment to stop the bleeding
- a lasting hole in the eardrum: the hole in your child's eardrum might not heal once the grommet falls out. This is called a **perforation**. Your child might need surgery to close the hole. But your doctor will probably advise that you wait to see if the hole heals on its own first
- scarring: grommets can sometimes scar children's eardrums. This can cause some hearing damage
- slipped grommets: grommets can slip out of position into your child's middle ear, perhaps because the hole made was too large. If this happens, your child will need an operation to remove the grommet
- build-up of skin in the ear: if your child gets an infection in the ear, a lump of skin can build up there. Doctors call this **cholesteatoma**. The lump can damage parts of the ear nearby. If this happens your child will need surgery to remove the cholesteatoma.

What can I expect afterwards?

Your child might be sleepy for a while after the operation because of the anaesthetic. He or she will be carefully monitored for a few hours and encouraged to eat and drink.

Most children go home the same day and recover quickly. There is usually no need to keep your child off school.

Your child's hearing might improve straight away. Some children are startled by everyday noises after having grommets put in.

If your child's ear bled during the operation, the blood can block the grommet, so your child's hearing may not improve until a few days later.

Doctors used to suggest that children with grommets fitted should wear ear plugs while swimming or while having a bath or shower. But if everything is fine at your child's follow-up appointment, there's no need to do this.

Flying shouldn't cause any pain as the grommet makes the air pressure equal between the middle ear and the outer ear.

Most grommets fall out after 6-12 months. The grommets are small and children may not notice them drop out. The hole in their eardrum usually closes within 3-4 weeks of the grommets falling out.

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If the grommets don't fall out by themselves, they will be removed in an operation after a few years.

By the time the grommets fall out or are removed, your child's hearing might be back to normal, because the fluid in their ear might have cleared up.

Unfortunately, some children get glue ear again and need to have another operation a few years after the first. But they should eventually grow out of it.

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