

Making a decision about **Glue ear if your child has hearing loss**

What is this document?

This document is called a decision aid. It is designed to help you decide between treatment options.

It is for parents or carers of children younger than 12 years who have **glue ear with hearing loss**. You can go through it and use it to help you talk to your child's care team. Your child's care team includes people from different health professions and specialties who help to manage your child's glue ear. For example, audiologists, surgeons and other ear specialists.

There are some sections for you to fill in if you wish. You do not have to do this, but it might help you think about things more clearly or remind you of what you want to talk about with your child's care team. It will also help them understand what is important to you and your child.

This decision aid can only be a guide because every child's situation is different.

Go to page 2 for more information on hearing loss



Go to page 7 for more information on the options



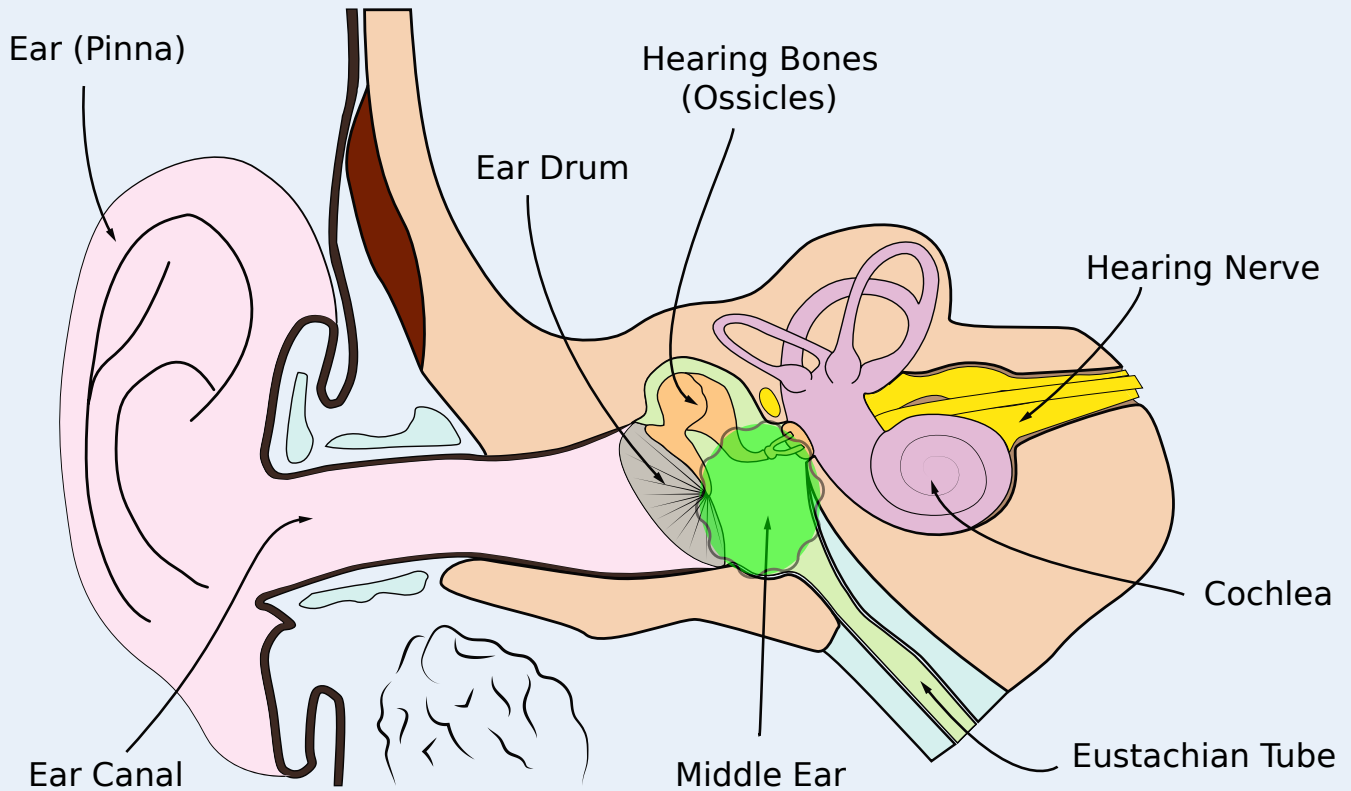
Go to page 14 for help with making your decision



1 What is glue ear?

Glue ear is where the middle part of the ear (the middle ear) fills up with fluid (or 'glue'). It often happens when a child has a cold or blocked nose. It is not an ear infection. Glue ear is also called **otitis media with effusion**.

The diagram on page 2 shows the different parts of the ear that we will talk about in this decision aid. The area glue ear affects is shown in **green**.



Inner ear image © Simon Browning 2024.

Glue ear is very common in young children:

- about 20 in 100 pre-school children will have glue ear at any one time
- about 80 in 100 children will have glue ear at some time before they are 10 years old.

Glue ear may get better, stay the same, or get worse at different times. It affects every child differently, but it will get better in the end.

It often gets better on its own in a few weeks or months, but takes longer in some children. Sometimes it gets better but then keeps coming back.

2 What is hearing loss?

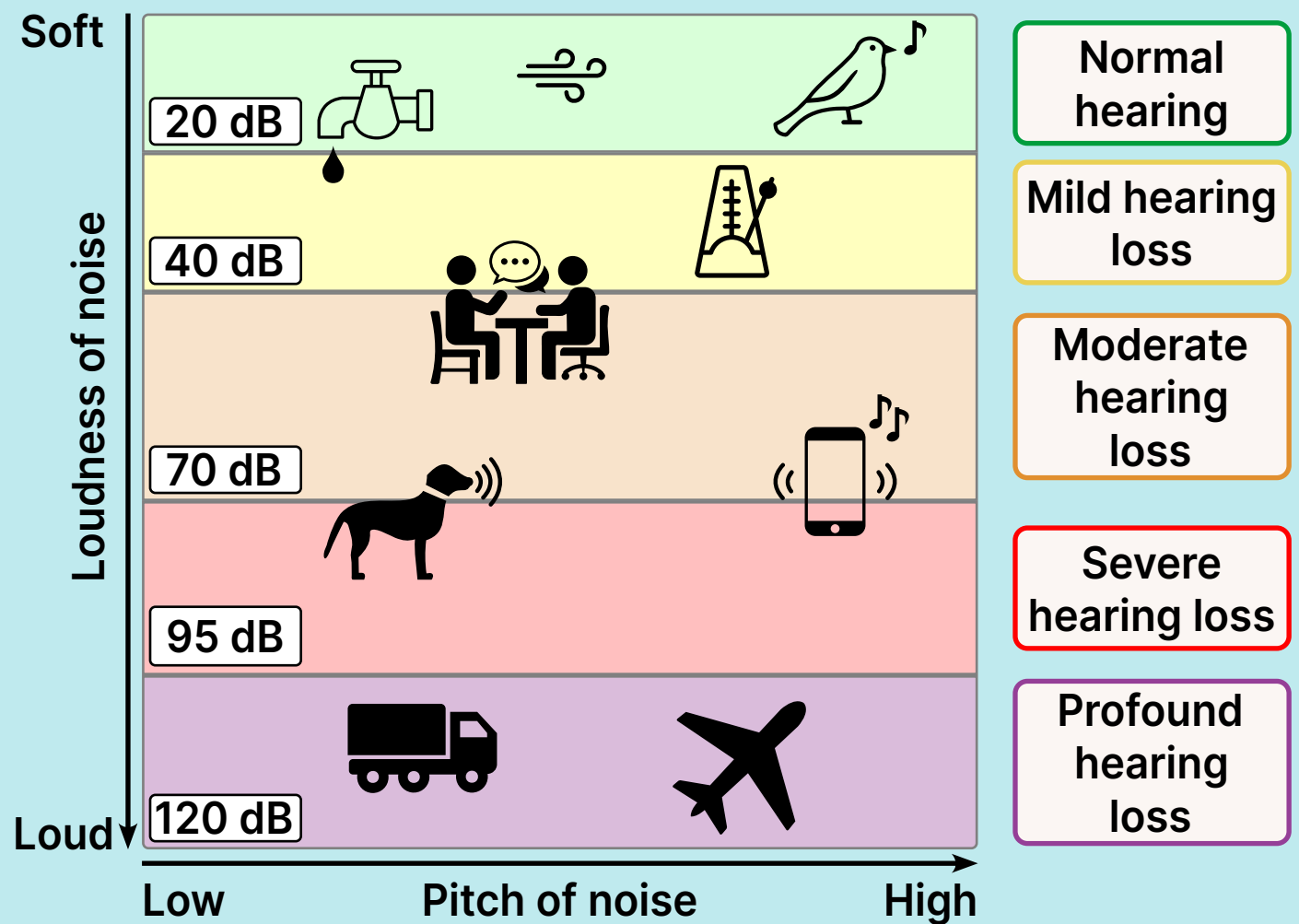
Glue ear can cause hearing loss in some children. This can be in 1 or both ears. Your child's hearing test result will show if they have hearing loss.

If they do, it will usually be **mild** or **moderate**. The diagram on the next page about **hearing loss** shows some examples of what sounds might be affected at different levels of hearing loss, and how quiet or loud they are compared to each other.

Speak to your child's care team about their hearing test if you are not sure about the results.

Hearing loss

Hearing loss is when someone cannot hear sounds until they are **above 20 decibels (dB)**, in 1 or both of their ears. The louder a sound needs to be in dB before they can hear it, the greater the amount of hearing loss. For example, a child who can only hear sounds of 50 dB or more has greater hearing loss than a child who can hear sounds of 25 dB or more. Some example sounds, and what level of hearing loss might affect someone's ability to hear them, are shown below.



You may be able to tell when your child has hearing loss. For example, if they do not respond when a person is speaking to them, or if they ask for things to be repeated. But sometimes it can be difficult to tell. They may be able to hear sounds such as a knock at the door but may not be able to hear speech sounds clearly.

Your child's hearing loss may stay the same or get better or worse at different times. You may find that it gets worse at certain times of year, for example if your child has allergies or a cold.

If you want to know more about glue ear and hearing loss, there are lots of resources available. See [Where can I go for more information](#) on page 13.

3 How hearing loss may affect your child

Hearing loss may have a big impact on your child's daily life. But it's important to remember that every child is different and not all children are affected in the same way. The **longer** your child has had hearing loss because of glue ear, the **less likely** it is to get better quickly on its own.

Glue ear for under 1 month?

On average, about **50 in 100** children will be **better** after **3 months**, and **50 will not**.



On average, about **75 in 100** children will be **better** after **12 months**, and **25 will not**.



Glue ear for over 12 months?

On average, about **33 in 100** children will be **better** after a **further 1 month**, and **67 will not**.



On average, about **61 in 100** children will be **better** after a **further 12 months**, and **39 will not**.



Some of the ways hearing loss may affect your child are shown below. But these effects may not always be due to hearing loss, they may be due to something else. If your child has special educational needs, it may be more difficult to tell. If you have concerns, speak to their GP or health visitor.

Learning, language and listening skills

Hearing loss can lead to your child having difficulties with speech and language skills. For example, their speech may be difficult to understand or they may find it difficult to sound out words in their reading book. This may affect their development and how they make progress in nursery or school.

Behaviour at home and at school

You may notice changes in your child's behaviour. For example, they may have poor concentration or be frustrated, tired or irritable. This may be because your child is working harder to hear and understand speech sounds correctly.

Social relationships and confidence

If your child is not hearing speech clearly, they may not be able to communicate so well with their friends and family. They may become withdrawn, and this can lead to difficulties with friendships. They also may lack confidence or have low self esteem.

4 Thinking about how it affects your child

You have a key role to play in deciding what options you would like your child to try. Glue ear with hearing loss affects every child differently.

It may help to think about the different things listed below, and how they relate to you and your child. Mark a dot on the scale next to each statement to show how much you agree or disagree with it (see the example below):

Strongly disagree Strongly agree

I'm worried about my child's hearing



There is also a space at the end of this section for you to add your own thoughts, concerns and questions if you wish.

You can talk through your answers with your child's care team. This will help them understand your current feelings and experience so that they can focus on supporting you and your child in the areas that are most important to you both. If a statement does not apply to you, or you prefer not to answer it, you can just leave it blank.

How my child's hearing loss is affecting them

Strongly disagree Strongly agree

It affects their quality of life a lot



It affects them most days



It affects both of their ears



It affects their speech and language skills



They often feel upset, tired or frustrated



It affects their behaviour at home



It affects their behaviour at nursery or school



They lack confidence or have low self esteem



It affects their relationship with friends and family



My concerns about my child's hearing loss

Strongly
disagree

Strongly
agree

I'm worried that my child's hearing is not getting any better



I'm worried about how my child's hearing loss will affect their development



My child is falling behind at nursery or school



My child's nursery or school does not understand my concerns



I do not have enough support to help my child



My thoughts, concerns or questions

5 Your child's options

When you first find out that your child has glue ear with hearing loss, there are some things that you, family, teachers and other carers can help them with straight away (see section 6 below). Your child will then have a check up after about 3 months. During this time their hearing loss may get better on its own, stay the same, or get worse.

After that check up, if your child still has hearing loss, you may decide to carry on as you have been. Or you may want to think about other options (see sections 7 and 8 below). Your choice is likely to depend on how much their hearing loss is affecting their daily life.

The panels below show the different options. If your child is older, you can involve them in the decision too. You may be able to try more than 1 option at the same time. Your child's care team will be able to tell you more about this.

Things you, family, teachers and other carers can help with

Changing their environment



Speaking and listening strategies



Things you, other carers and your care team can help with

Monitoring and support



Using auto-inflation (a balloon)



Things your child's care team can help with

Using a hearing aid: air or bone conduction



Surgery: put in grommets, possible removal of adenoids



The following sections give you more information about your child's options. Waiting times for the various options are different in different areas. Your child's care team can advise you.

Taking no action: things to think about



You may decide for your child not to have any monitoring or treatment at all, including not trying the things in section 6. But if you decide this, your child's hearing loss may have a big negative impact on their development, including effects on their speaking and learning.

6 Things you and other carers can do

There are lots of ways you can help your child to hear and listen better. These things can make a big difference to your child. They work best when everyone who cares for your child is involved.

Try involving **family** (such as grandparents and siblings), **friends**, **teachers** and **other carers** who have regular contact with your child.

[Click here to see some ways everyone can help](#)



7 Things you and your care team can do

Monitoring and support

What does this involve?

With this option you and others will be helping and supporting your child at home and at nursery or school. Your child will also have check ups with their care team (known as monitoring) but will not have any treatment. This combination of monitoring and support used to be called 'watchful waiting'.

During this time your child's hearing loss may get better on its own, stay the same, or get worse.

What happens at the check up?

At your child's check up, their care team will look for any changes in their hearing. The number of check ups your child has, and the time between them, will vary depending on how their hearing loss is affecting them. They will not usually have any check ups when their hearing gets back to normal. Your child's care team will be able to advise you.

[Click here for more on advantages, disadvantages and other things to think about for monitoring and support](#)



Using auto-inflation

What does this involve?

Auto-inflation is a non-surgical treatment option. It involves blowing up a special balloon using 1 nostril at a time, or swallowing while holding the nostrils closed. Your child will need to do this several times a day. Your child's care team will be able to show you and your child how it works.

You can also watch this [video of how auto-inflation works](#).

Auto-inflation is a way of forcing air through the middle ear to help the eustachian tube to open. This is the tube that connects the middle ear and the back of the nose (see the [inner ear diagram](#) on page 2). Using auto-inflation can help the fluid in the middle ear to drain away better.

Click here for more on
advantages, disadvantages
and other things to think about
for auto-inflation



8 Things your care team can do

Using a hearing aid

What does this involve?

Hearing aids help to make sounds and speech louder. There are 2 different types of hearing aids. They are air conduction and bone conduction hearing aids.

How you wear the hearing aid

Air conduction hearing aids are usually worn behind the ear, and send sounds into the ear canal.

Bone conduction devices are worn on a headband. They send sounds using vibration through the bones of the head.

The pictures on the next page show both types of hearing aid being worn.

Air conduction hearing aid



Bone conduction hearing aid



Air conduction and bone conduction hearing aid images © Glue Ear Together 2024.

**Click here for more on
advantages, disadvantages
and other things to think about
for hearing aids**



Having surgery

What does this involve?

Surgery involves putting grommets into your child's ear, and possibly removing their adenoids at the same time. This is done during an operation under general anaesthetic, so your child is unconscious for the whole time. All surgery depends on hospital waiting times, which will be different in different areas.

The surgery is done during the day, and your child will usually be able to go home the same day.

Putting in grommets

Grommets are small plastic tubes which sit in a hole made in the ear drum. They are sometimes called ventilation tubes.

The tube is put into a small cut in the ear drum to allow air to get in and out of the middle ear.

Over the following months, the grommet will fall out and the ear drum will heal.

**Click here for more on
advantages, disadvantages
and other things to think about
for grommets**



Removing the adenoids

The adenoids are lumps of tissue at the back of the nose above the roof of the mouth.

Research studies have not explained how removing the adenoids works in children with glue ear, but it can help some children.

**Click here for more on
advantages, disadvantages
and other things to think about
for removing the adenoids**



9 Thinking about hearing aids or surgery

You can skip this section if you are not thinking about these 2 options.

If you are thinking about your child using a hearing aid or having surgery, you may be unsure about which option is best for your child.

There is no evidence from research studies that have compared the 2 options. But they have different advantages and disadvantages. You can talk about this with your child's care team.

Hearing aids may be better if you or your child...

do not want an operation

are worried about side effects or complications after surgery, such as getting an infection

do not want to wait for surgery

Surgery may be better if you or your child...

do not want to show any visible signs of treatment for hearing loss

are worried about the risk of choking from batteries and small parts in hearing aids

are concerned about the amount of support your child may need afterwards

Space for you to write down your thoughts or concerns

10 Thinking about types of hearing aids

You can skip this section if you are not thinking about hearing aids.

If you are thinking about a hearing aid for your child, there is no evidence that one type is better than another at helping your child hear better.

Air conduction and bone conduction hearing aids have different advantages and disadvantages. You can talk about this with your child's care team. Bone conduction hearing aids may not be available in all areas. Your child's care team will advise you.

Air conduction hearing aids may be better if your child...

has hearing loss that stays about the same

does not want to wear a headband

Bone conduction hearing aids may be better if your child...

has hearing loss that often changes

has had fluid leaking from the ear in the past

has structural issues such as narrow ear canals

Space for you to write down your thoughts or concerns

11 Treatments that are not recommended

There are lots of medicines (such as antibiotics) and other treatments (such as acupuncture) that have been used to treat glue ear. Some medicines may be used to treat other related conditions your child may have, such as asthma. But there is no evidence from good clinical studies that these options are helpful for glue ear on its own, and some may make things worse. If your child is having any treatments not included in this decision aid, you can talk to their care team.



12 Making a decision

Where can I go for more information?

NHS:

<https://www.nhs.uk/conditions/glue-ear/>



Ewing foundation:

The Hearing to Succeed and Achieve guide gives information about hearing loss and how this may affect a child's ability to listen to speech:

<https://ewing-foundation.org.uk/resources/hearing-to-succeed-and-achieve/>

National Deaf Children's Society (NDCS):

<https://ndcs.org.uk/>

Glue Ear Together:

<https://glueeartogether.org.uk/>

Hear Glue Ear:

<https://www.hearglueear.co.uk/>

Where can my child go for more information?

Some information is available for children to use, for example an app from Hear Glue Ear:

<https://www.cambridgedigitalhealth.co.uk/hear-glue-ear-app/>

Making the decision

When you first find out that your child has glue ear with hearing loss, there are some things that you, family, teachers and other carers can help them with straight away (see [Things you and other carers can do](#) on page 8).

Your child will then have a check up after about 3 months. During this time their hearing loss may get better on its own, stay the same, or get worse.

After that check up, if your child still has hearing loss, you may decide to carry on as you have been. Or you may want to think about other options.

Your choice is likely to depend on how much their hearing loss is affecting their daily life.



What to think about. Think about how much your child's hearing loss affects their daily life. You may want to remind yourself about your answers to the questions – see [Thinking about how it affects your child](#). This may help you decide what is best for your child now. If your child is older, you can involve them in the decision.

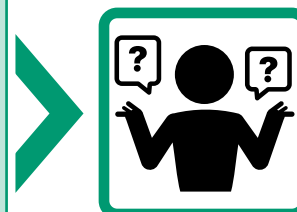
Your child may need to try a few options to find out what works best. Things can change over time, so you may want to come back to this aid later and think about other options.

What can be done, and when. Remember some options can be tried at the same time. For example, your child can use auto-inflation and also have monitoring and support. You can try 1 option while you are waiting for something else. For example, your child can try a hearing aid while they are waiting for surgery.



Time to think. You do not have to make this decision straight away. You can take some time to discuss it with family, friends, teachers, and your child's care team, and then decide.

Changing your mind. It's also OK to change your mind. If you choose surgery for your child, you can change your mind right up to the day of the operation. If you decide for your child not to have surgery, you can think about this again later if you wish.



Things to check

I have enough support and advice to make a choice

☐

Yes

☐

No

I know enough about the potential benefits and harms of each option

☐

Yes

☐

No

I am clear about which potential benefits and harms matter most to me

☐

Yes

☐

No

I feel sure about the best choice for my child

☐

Yes

☐

No

If you said 'no' to any of these, tell your child's care team and ask them for help

My thoughts at the moment

☐

I'm not sure what to do

☐

I'm leaning towards

This is because

13 How this decision aid was produced

Who made this decision aid?

This decision aid was developed in line with the [NICE process guide for decision aids](#). It was produced with a project group of clinical and patient experts. A wide range of stakeholders was invited to comment on an earlier draft. This included parents with lived experience and frontline audiologists, surgeons and other ear specialists. It is based on the best available evidence and the project group's experience and expertise. The sources of further information were identified by the project group. NICE is not responsible for the content of external websites. Omission of a website in this decision aid does not imply that NICE has made a judgment about its content.

The classification of hearing loss can vary slightly between different sources of information. NICE has used the classification from the Ewing Foundation's Hearing to Succeed and Achieve guide in this decision aid.

Some of the research studies used were old and included few children, so we cannot be sure about how accurate the results are. Research studies are not able to say for sure how likely an individual child is to benefit.

Information we used to make this decision aid

- MacKeith S, et al. [Ventilation tubes \(grommets\) for otitis media with effusion \(OME\) in children](#). Cochrane Database Syst Rev 11: CD015215.
- MacKeith S, et al. (2023) [Adenoidectomy for otitis media with effusion \(OME\) in children](#). Cochrane Database Syst Rev 10: CD015252.
- [Otitis media with effusion in under 12s](#) (2023) NICE guideline NG233; Evidence reviews D, E, F, I, J and Supplement 2.
- National Deaf Children's Society (2023) [Glue ear](#). Accessed 2023.
- Webster KE, et al. [Autoinflation for otitis media with effusion \(OME\) in children](#) (2023). Cochrane Database Syst Rev 9: CD015253.

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Appendix 1: Ways everyone can help your child

Everyone can help by:

- getting your child's attention first
- being close to and facing your child when speaking to them
- speaking clearly
- reducing background noise as much as possible (for example, from the TV or radio)
- using visual aids (for example, written worksheets, visual reminders and photographs)
- making sure your child is not near any tobacco smoke
- helping your child get ready for any treatments they may have.

If your child is at nursery or school, it can also help if:

- they can sit near the front of class
- you encourage your child to let people know if they have not heard what was said
- you can talk to your child's teacher or carer about other ideas they may have to help.

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Appendix 2: Monitoring and support

Advantages

- Glue ear can get better in a few weeks or months. Waiting to see what happens may mean that your child does not have treatment they do not need.
- Your child may not need to think about things like hearing aids or surgery.
- Your child's care team can get a better picture of their hearing loss. This helps to understand if other options may be needed and what might be best.

Disadvantages

- Your child's hearing loss may get worse and affect their daily life. If this happens, you may want to think about other options.

Other things to think about

- Your child will need to have check up appointments.
- You may not be able to tell how your child's hearing loss is affecting them.
- It works best when everyone who looks after your child is involved.

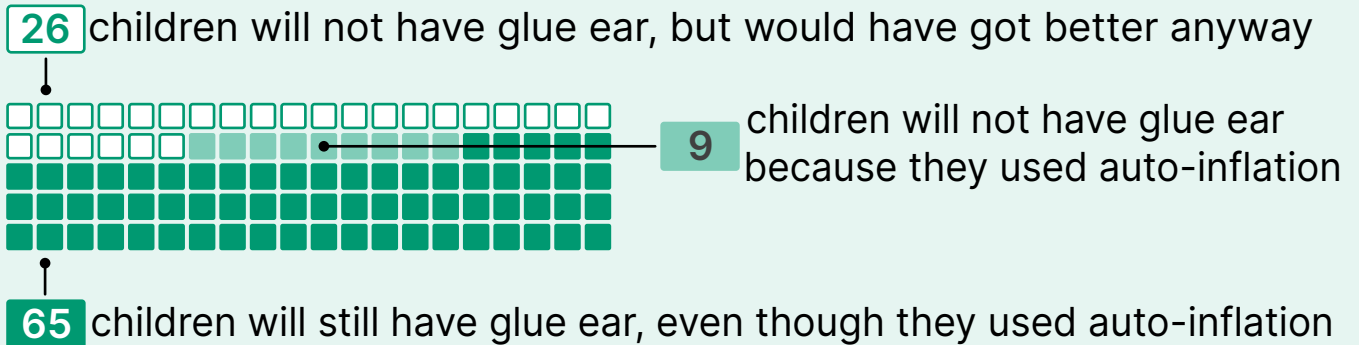
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Appendix 3: Auto-inflation

Advantages

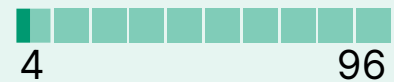
- Studies show it may reduce hearing loss and glue ear in the short term. Out of every 100 children who use auto-inflation, after 3 months:



Disadvantages

- We do not know about the longer term effects because studies have not been done.
- It can cause ear pain in some children:

4 out of 100 who used auto-inflation had ear pain (**96 did not**)



1 out of 100 who did not use auto-inflation had ear pain (**99 did not**)



Other things to think about

- School children need to remember to use it before and after school, and at bedtime.
- It works better for some children more than others. We cannot say how effective it will be for your child.
- Some children may not have the coordination to use it, such as very young children (under 3 years) and children with learning or sensory difficulties.
- It can be used at the same time as monitoring and support.
- It cannot be used if your child has ear pain.
- We do not know if it will reduce the need for your child to have other treatments in the future, such as hearing aids or surgery.

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Appendix 4: Hearing aids

Advantages

- They can improve hearing loss straight away. We cannot say how they compare with other options because no good studies have looked at this.
- Both types of hearing aids are temporary until your child's hearing loss gets better.

Disadvantages

- The button batteries and small parts can be choking hazards. They may cause serious harm if swallowed. Battery locks must be fitted if your child is under 5 years old.
- They need to be used as advised by your child's audiologist. You may want your child to try something else if they are often removing their hearing aid.
- Your child may take time to get used to their hearing aid.

Other things to think about

- Your child will need an appointment with an audiologist to fit the hearing aid. They will explain how to use it and look after it.
- You and other carers will need to support your child after the hearing aid is fitted. You may be able to get more help, such as from sensory support services. You can ask your child's care team about this.
- You and your child may be asked to check for any changes in hearing.
- They need to be worn throughout the day and removed for sleeping, bathing or swimming. Your child may need help with this.
- They need cleaning and batteries need changing or charging.
- Hearing aids that are rechargeable or have battery locks may be better if your child (or other people living at home) has learning difficulties, or if your child has younger siblings.
- Your child will need regular hearing aid checks. How often depends on your child's needs and the type of hearing aid. The settings may also need to be changed.
- The hearing aid will be visible. Your child may have feelings about this, which may be positive or negative.

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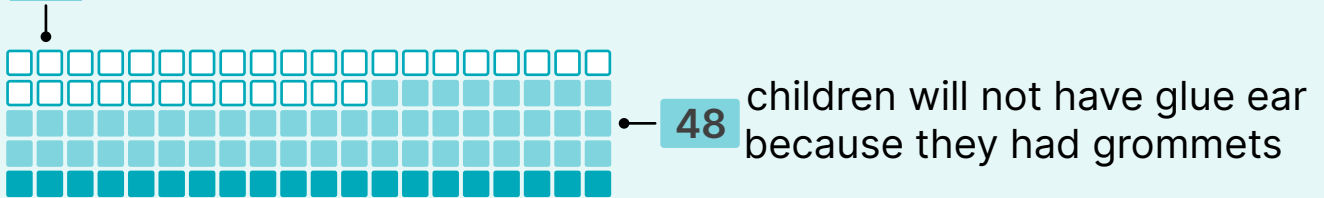


Appendix 5: Grommets

Advantages

- They can improve hearing loss straight away.
- Studies show they may reduce hearing loss and glue ear in the medium term. Out of every 100 children who have grommets, after 6 months:

32 children will not have glue ear, but would have got better anyway



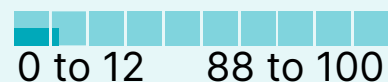
20 children will still have glue ear, even though they had grommets

- Your child will not feel the grommets in their ear.
- Your child will not need ongoing support, as is needed with hearing aids.

Disadvantages

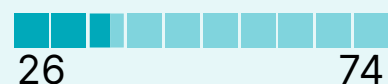
- Some children may still have hearing loss afterwards. We cannot say for sure how often this happens because studies have not been done.
- Grommets often become less effective about 6 to 9 months after surgery.
- Some children will have a hole left in their ear drum after the grommet falls out. This may need further surgery.

In research studies, **0 to 12 out of 100** children had a hole left (**88 to 100 did not**).



- In some children fluid can leak out through the grommets. This may need treating with antibiotic ear drops. If it does not get better, the grommets may have to be taken out.

In research studies, **26 out of 100** children had fluid leaking from their ear (**74 did not**).



(Continued over page.)

Appendix 5: Grommets (continued...)

- Some children may get other problems such as changes to their ear drum. We cannot say for sure how often this happens.
- All surgery under general anaesthetic carries some risks. Your child's surgical team can explain these.

Other things to think about

- Your child may worry about having an operation, or be upset before having the surgery.
- Your child will need time to recover from the surgery. They will be away from nursery or school for about 1 or 2 days.
- Your child's ear will need to be kept dry for 2 weeks after surgery. They should not go swimming and should be careful when bathing or washing their hair during this time.
- If your child has fluid leaking from the ear, they should avoid contact with water.
- Grommets can fall out too early or stay in place too long. They may need to be taken out by surgery so the ear drum can heal.
- Your child will need a hearing test after surgery, usually after 6 weeks. They may also have a hearing test about 1 year after surgery.
- They may not be suitable for some children, such as children with Down syndrome.
- If your child has had grommets in the past, they may be able to have them again. We do not know the long term effects of putting in grommets more than once because studies have not been done.

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Appendix 6: Removing the adenoids

Advantages

- Studies show it may reduce glue ear in the longer term (1 to 2 years). This may mean there is a benefit on hearing loss.

Disadvantages

- There is a small chance of bleeding. There is not enough evidence from research studies to say how often this happens.
- It may cause a problem with your child's palate, leading to speech and swallowing difficulties.
- All surgery under general anaesthetic carries some risks. Your child's surgical team can explain these.

Other things to think about

- It may not be suitable for your child depending on the shape of their palate.

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