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Ears and flying (Aeroplane ear)

Usually your ears will settle soon after landing. Occasionally pain or a feeling of blockage drags on. If it does, see your doctor.

How come my ears hurt on a plane?

If you have ever been on a plane journey, you'll know that by the time the pilot announces that the plane has begun its descent to your destination, your ears will have already given you this message. They start to feel a bit odd, either feeling blocked or painful.

It's all due to pressure changes. As the plane starts to lose height, the pressure in the air around you changes. Until the pressure inside the tubes behind your eardrum adapts, the pressure inside and outside your ear is different. This pushes the eardrum in, stretching it and giving you pain. This is commonly known as aeroplane ear, and is a mild and temporary form of ear [barotrauma](#).

What is aeroplane ear?

Some people experience ear pain when flying in a plane. Usually this happens as the plane descends to land. The pain may get worse the lower the plane gets and can be quite severe on landing. The pain usually goes away soon after landing.

Does aeroplane ear happen to everyone?

The pressure change is happening to everyone, but in some people the pain or blockage is worse than others - some may not feel it at all. In particular, if you are congested (because of a cold or hay fever, for example), it is harder for your ears to adapt. If this is the case, you may be more aware of pain or blocked ears than the person sitting next to you.

What can I do for my child?

Kids are also going to get these pressure changes in their ears, and there is invariably a baby bawling as the plane starts to descend and they notice their ears start to hurt. And of course you can't tell a baby to do the Valsalva manoeuvre at this point. It depends a little on the age of the child.

Feed your baby with a bottle

This as the sucking and swallowing action will help equalise the pressures for them.

Encourage them to suck a dummy

Sucking on a dummy (pacifier) may have the same effect as feeding a baby.

Give them a sweet to suck

Avoid boiled sweets in very young children because of the choking risk, but in older kids this may be a remedy which will make you a popular parent.

Have them drink from a straw sports bottle

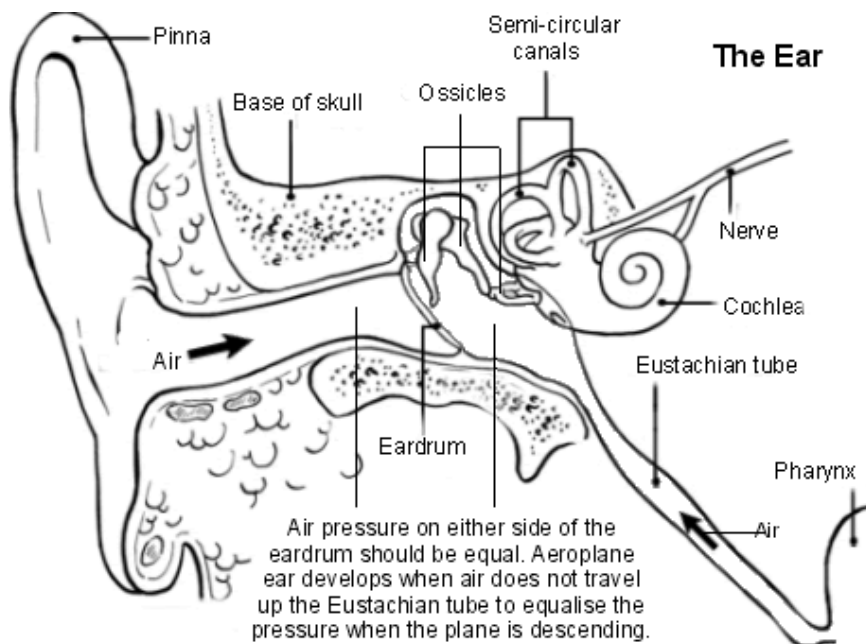
A drink which has a straw or which is in a sports bottle might also be useful as it encourages the sucking action as with the other methods.

Give them paracetamol or ibuprofen

If your child has a cold and is therefore likely to have more of a problem on the flight, a dose of [paracetamol](#) or [ibuprofen](#) an hour before landing might make for a more peaceful flight. Some of the measures described above may be helpful, but decongestants are not generally recommended for children.

What causes aeroplane ear pain?

The pain is caused by unequal pressure that develops between the air in the middle ear and the air outside the ear during takeoffs and landings.



The small space in the middle ear behind the eardrum is normally filled with air. This air space is connected to the back of the nose by a tiny channel called the Eustachian tube. The air on either side of the eardrum should be at the same pressure. Air pressure is highest nearer the ground. So as a plane descends, the air pressure becomes higher. This pushes the eardrum inwards which can be painful. To relieve this, the pressure in the middle ear has to rise quickly too. Air needs to travel up the Eustachian tube into the middle ear to equalise the pressure.

Why are some people affected more than others?

The Eustachian tube is normally closed but opens from time to time when we swallow, yawn or chew. In most people, just normal swallowing and chewing quickly opens the Eustachian tube, allowing air to travel up it and equalise the pressure. Some airlines offer sweets to suck and eat when the plane is descending, to encourage you to chew and swallow.

However, the Eustachian tube in some people does not open as easily and so the pressure may not be equalised so quickly. For example, some people may have a more narrow Eustachian tube than normal. Also, if you have any condition that causes a blockage to the Eustachian tube then the air cannot travel up to the middle ear. The common cause of a blocked Eustachian tube is from mucus and inflammation that occur with colds, throat infections, [hay fever](#), etc. Any condition causing extra mucus in the back of the nose can cause this problem.

How can I prevent ear pain when I fly?

Ideally, anyone with an [ear infection](#), [cold or respiratory infection](#), etc, should not fly. It is important always to take out travel insurance at the point of booking a holiday – if you are advised not to fly by a doctor then your insurance will cover the cost of the holiday. However, some people may feel that they need to fly anyway as the reason for the trip is so important. The following may help people who develop ear pain when flying.

Suck sweets or chew chewing gum

Do this when the plane begins to descend. Air is more likely to flow up the Eustachian tube if you swallow, yawn or chew. For babies, it is a good idea to feed them or give them a drink or dummy at the time of descent to encourage them to swallow.

Valsalva manoeuvre

Try doing the following: take a breath in. Then, try to breathe out gently with your mouth closed and whilst pinching your nose (the Valsalva manoeuvre). In this way, no air is blown out but you are gently pushing air into the Eustachian tube. If you do this you may feel your ears go 'pop' as air is pushed into the middle ear. This often cures the problem. Repeat this every few minutes until landing – whenever you feel any ear discomfort.

Stay awake when the plane is descending to land

Ask the air steward or stewardess to wake you when the plane starts to descend. If you are awake you can make sure that you suck and swallow to encourage air to get into the middle ear.

The above usually works for most people. However, if you are particularly prone to develop aeroplane ear, you may wish also to consider the following in addition to the tips above:

- [Antihistamine tablets](#) (available at pharmacies). Take the recommended dose the day before and the day of travel. This may help to limit the amount of mucus that you make.
- A [decongestant](#) nasal spray can dry up the mucus in the nose. For example, one containing xylometazoline – available at pharmacies. Spray the nose about one hour before the expected time of descent. Spray again five minutes later. Then spray every 20 minutes until landing. These are only for use for a short time.

- Decongestant tablets or syrup. For example, a medication called pseudoephedrine. This can be obtained from a pharmacy, without a prescription. Take the dose recommended half an hour before take-off, and if necessary repeat according to the instructions.
- Air pressure-regulating ear plugs. These are cheap, reusable ear plugs that are often sold at airports and in many pharmacies. These ear plugs slow the rate of air pressure change on the eardrum. (It is the rapid rate of pressure change on the eardrum that is the problem and these earplugs slow this down.) Follow the instructions that come with them. Basically, you put them in before the door of the aircraft is shut. Some people then wear them for the entire flight. Some people take them out when the plane reaches cruising height and then place them in again just before the plane starts to descend to land.
- Blowing up a special balloon. Products such as Otovent® are balloons which you blow up through your nose, by blocking off one nostril at a time and blowing through the other. These can be bought from pharmacies, and some people find they help stop the pain during flying or unblock ears afterwards.

What is the treatment for aeroplane ear?

Whilst in the plane, the treatment is the same as all the measures described in the prevention section. So, try one or more of the following:

- Suck on a boiled sweet.
- Have a drink, ideally through a straw or sports bottle.
- Yawn or open your mouth widely as if you were yawning.
- Pinch your nose closed with your fingers and blow through your nose until you feel your ears 'pop'.
- For babies, give a dummy to suck, or a drink from a bottle.

If the measures above fail to help, although the pain may be severe, it normally goes quickly. If it does not settle, take painkillers such as [paracetamol](#) until it does go. Fluid or mucus sometimes accumulates in the middle ear for a few days after the flight, which may make hearing rather dull for a while. This happens if the Eustachian tube is still blocked, and is more likely if you had a cold before flying. To clear it, you could try one of the measures in the section above. For example, the Valsalva manoeuvre, a decongestant or the balloon which you blow up through your nose (Otovent®). On a flight full of people, blowing up a balloon through your nose might be embarrassing but if your ears are still blocked afterwards you should be able to use it in a less public place!

You should see a doctor if the pain or dulled hearing does not clear within a few days.

Are there any complications?

Complications are extremely unusual, or millions of people wouldn't be flying on a regular basis. Very occasionally, the eardrum can be put under so much pressure that it bursts (perforates), leaving a hole in the eardrum. If this does happen, the pain usually goes away immediately. Perforated eardrums usually heal well without any treatment.

Can I fly with an ear infection?

It is advisable NOT to fly if you have an ear infection, such as [otitis media](#) or [otitis externa](#). If you do fly, the pain in your ear may be worse and it may take longer to settle. You may be more likely to have a perforated eardrum. If you absolutely do have to fly with an ear infection and cannot delay your travel or go by an alternative mode of transport, [decongestant medicines](#) may help prevent problems. (These are not suitable for children under the age of 6 years, and only with the advice of a pharmacist for children aged 6-12 years.) It may also be worth taking regular painkillers such as [paracetamol](#) or [ibuprofen](#) during the flight.

Further reading

- [Wright T](#); Middle-ear pain and trauma during air travel. *BMJ Clin Evid.* 2015 Jan 19;2015. pii: 0501.

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Authored by:	Peer Reviewed by: Dr Colin Tidy, MRCGP	
Originally Published: 19/11/2023	Next review date: 24/10/2022	Document ID: doc_4241

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