

Patient leaflets from the BMJ Group

Ear pain during air travel

Many people get pain in their ears when they take a flight, especially when the plane comes in to land. But the pain usually goes away once they're on the ground. There are some things you can try to stop your ears hurting when you fly.

What happens in ear pain during air travel?

You can get pain in your ear during air travel when the air pressure inside your ear is different from the pressure outside your ear. Usually, a tiny tube called the eustachian tube keeps the pressure the same. (This tube connects the inside of your ear with the back of your nose. It opens and closes when you swallow or yawn.)

But when you travel in an aeroplane, the air pressure around you changes quickly, especially during take-off and landing. Air pressure is highest near the ground and lessens as you get higher. You may not be able to swallow fast enough to keep the inside of your ear filled with air. This puts pressure on your eardrum, which is a piece of tissue stretched across your ear canal.

If your eustachian tube is blocked for some reason, it can be especially difficult to get enough air into your ear. This is more likely if you have a cold. It's also more likely in children, because their eustachian tubes are shorter and narrower.

What are the symptoms?

Some people get a lot of pain in their ears when they fly, especially during take-off and landing. But these symptoms usually go away soon after landing.

As well as pain, your ears may also feel blocked. You might feel dizzy when you stand up, and have problems hearing. Some people get ringing in the ears (tinnitus).

What treatments work?

If your ears are blocked because you have a cold or another infection, it may be better not to fly. But you may not want to, or be able to, cancel a holiday or business trip for this reason. If you have to fly with a cold or with a blocked ear, there are treatments you can try to reduce your chances of getting ear pain during the flight.

Medicines

Taking a **decongestant tablet or syrup** before a flight can help you avoid ear pain if you're an adult. But there's not enough research to say if this treatment works for children.

You can buy decongestants that contain a drug called pseudoephedrine (brand names Galpseud, Sudafed) from a pharmacy. They come as tablets and syrups. You'll need to take the decongestant half an hour before take-off.

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In two studies, about 3 in 10 adults who took decongestants got ear pain during a flight, compared with between 5 in 10 and 7 in 10 of those who didn't take decongestants.

Decongestants containing pseudoephedrine can make you feel drowsy and get a dry mouth.

Some people use **decongestant sprays**, which usually contain the medicines ephedrine, oxymetazoline (Vicks Sinex) or xylometazoline (Otraspray). But there's no research to say that they help ear pain during a flight.

Things you can do for yourself

There's no research into these techniques, but you might find them helpful. **Yawning, swallowing or blowing hard** while pinching your nose should help reduce the pressure in your ears. You should feel your ears 'pop'. Sucking boiled sweets may help you to swallow more often.

Blowing up a special balloon can stop you getting pain during a flight and help clear blocked ears after you've landed. One product is called Otovent. It can be prescribed by your doctor or you can buy it from a pharmacist.

The balloon is attached to a small tube. You put the tube in one nostril. You then blow up the balloon through that nostril, keeping the other nostril closed with a finger, and keeping your mouth shut. You then stop blowing and breathe normally, and the air goes out of the balloon. You can repeat the exercise again, using the other nostril.

What will happen to me?

You'll probably find that the pain in your ears from flying goes away soon after you land.

It's very unlikely that the pressure will cause a hole in your eardrum (a perforation). There's no good research on how often this happens to people who take commercial flights, although it seems to be extremely rare. Research into people flying in military aircraft showed that, if they did get a hole in the eardrum, it healed over by itself.

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