

Patient information from BMJ

Last published: Feb 15, 2022

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 from hurting when you fly.

What causes 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. The 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 airplane, 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 pressure inside your ear the same as the pressure outside. 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 or another infection. 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 feeling painful, your ears may also feel blocked. You might feel dizzy when you stand up, and have problems hearing. Some people get ringing in their 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 vacation 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.

Ear pain during air travel

Medications

Taking a decongestant before a flight may help you avoid ear pain if you're an adult. However, doctors don't usually recommend this treatment for children, as there's not enough research to say whether it helps.

You can buy decongestants from a pharmacy. They come as pills, syrups, and nasal sprays. You'll need to take the decongestant half an hour before take-off.

Decongestants can cause mild side effects. For example, those containing a medication called pseudoephedrine can make you feel drowsy and get a dry mouth.

Things you can do for yourself

There's no good 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 hard candy may help you to swallow more often. However, these candies are not appropriate for younger children, as they can be a choking hazard. Instead, children might try drinking a beverage with a straw, and infants might suck on a bottle or pacifier. Older children and adults might also try chewing gum.

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). We don't know 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.

The patient information from *BMJ Best Practice* from which this leaflet is derived is regularly updated. The most recent version of Best Practice can be found at bestpractice.bmj.com. This information is intended for use by health professionals. It is not a substitute for medical advice. It is strongly recommended that you independently verify any interpretation of this material and, if you have a medical problem, see your doctor.

Please see BMJ's full terms of use at: bmj.com/company/legal-information. BMJ does not make any representations, conditions, warranties or guarantees, whether express or implied, that this material is accurate, complete, up-to-date or fit for any particular purposes.

© BMJ Publishing Group Ltd 2022. All rights reserved.

