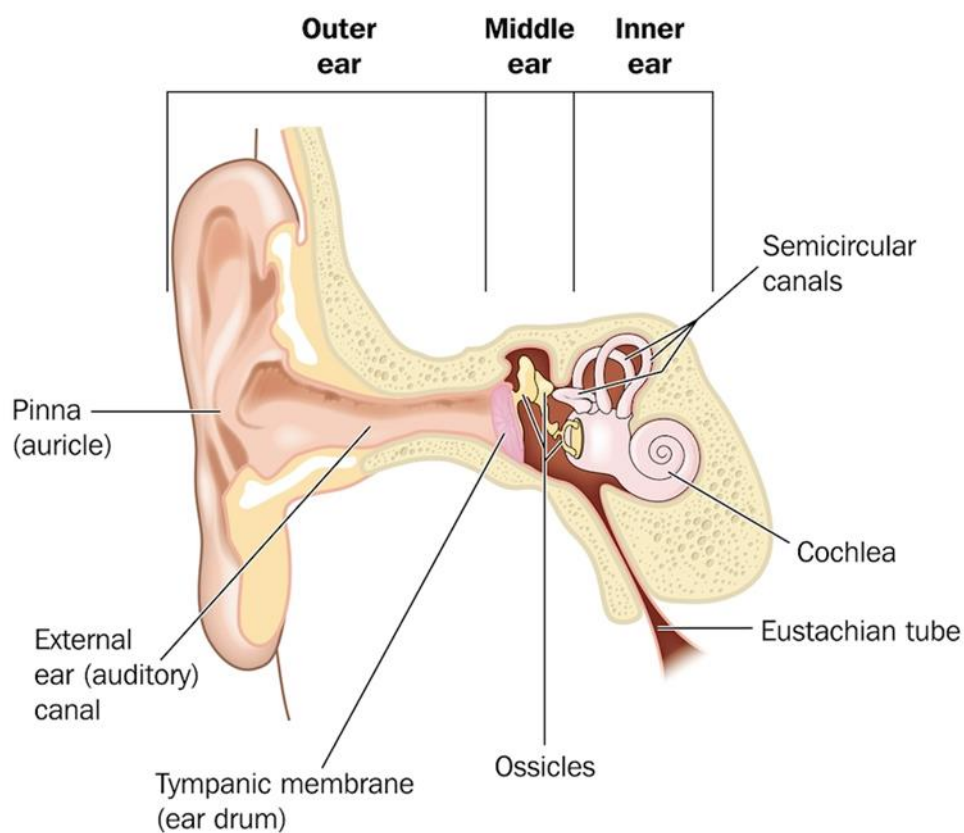


What happens to your ears while you're flying?

For some people, their ears hurt when they fly. Pressure or pain can occur while in the air and sometimes it takes until after the landing before the hearing completely returns. That can be very annoying. What exactly does flying do to the ears and what can be done about the complaints?

How do your ears work?

Sound is an airborne vibration. This vibration is transmitted via the ear canal of the ear to a thin membrane: the eardrum. The eardrum hermetically seals the ear canal from the inside. At the back of the eardrum is the Eustachian tube that runs from the middle ear to the nasal and pharyngeal cavity. This tube allows the air to flow back and forth to regulate the pressure in the middle ear. But that only works if the Eustachian tube is not blocked. Mucus or inflammation can cause such a blockage, for example in case of a cold, hay fever or an infection of the respiratory tract. But air pressure also affects the Eustachian tube.



Take-off

As an aircraft takes off, the air pressure in the cabin gradually decreases. Because this pressure is lower than on the ground, air must escape from the middle ear. Otherwise the eardrum will bulge. If all goes well, the air in the middle ear simply escapes through the Eustachian tube. This is generally no problem. Hardly anyone has any problems with his or her ears during take-off.

Descent

As the aircraft descends, the pressure in the cabin gradually increases and the eardrums are in danger of being pushed in. Behind the eardrums, in the middle ear, the pressure must also rise. This is done by sucking in air through the Eustachian tube. If the pressure in the middle ear remains too low, the eardrums are drawn inwards and come under pressure. This first feels like pressure and then pain sets in. In addition, the taut eardrum can no longer vibrate well so that there is the feeling of being deaf.



How can you prevent earaches on board?

- **Swallow and yawn during the descent.** This opens the Eustachian tube so that the air reaches the middle ear. Even after landing, it helps to keep swallowing regularly.
- **Blowing your nose, chewing gum, or drinking while pinching your nose closed.** Which of these options works best, differs from person to person. If something works, it must be repeated many times during landing. This is called 'coping:' the air flows more easily through the Eustachian tube.
- **Inhale and exhale gently with closed mouth and pinched nose.** This is called the Valsalva manoeuvre, or 'clearance.' The air is not exhaled, but gently pushed into the Eustachian tube. If you do this, you can hear your ears pop and the problem is often solved.
- **Stay awake during descent.** Maybe this is obvious, but of course these tips can only be carried out when you are awake.
- **Babies or small children** can be given a drink or a pacifier during descent to help them swallow.
- **Earplugs** that regulate changes in air pressure are on sale at some airports. These earplugs slow down the change in air pressure. There is no medical proof of function, but the earplugs can still provide relief.

Fit to fly when you have an earache?

If you have a severe cold, earache or fever, it might not be wise to fly. The Eustachian tube can be completely blocked by mucus, which can cause serious ear problems during the flight. To be on the safe side, the ears can be checked by a doctor before departure. Airport Medical Services at Schiphol has special equipment that can test the pressure movements of the ear. There they can advise whether or not it is advisable to be flying.

Ear problems after the flight

Were the above tips helpful? No reason to despair. The pain can be very acute, but it usually ebbs away quickly. It might help to take a paracetamol. Fluid or mucus can accumulate in the inner ear, reducing hearing. This can happen, for example, if the Eustachian tube is still blocked or if you had a cold before you started flying. In order to solve this problem, the above tips can be implemented again.

If ear problems persist, it is wise to seek medical advice. This can be done via your general practitioner or at Schiphol where Airport Medical Services is available 24/7 for advice. For general travel advice, you can also contact the [Travel Clinic of KLM Health Services](#).