FLYING & THE EAR

Liam Masterson MRCS DOHNS RAF

Some people with hearing loss or tinnitus worry about travelling on a plane. This leaflet has been produced to address common questions and concerns about flying with tinnitus.

Top tips for a comfortable flight

Be reassured that most people with tinnitus do not experience any adverse effects on their condition whilst flying. In the unlikely event that they do, it is likely to be only minor and temporary.

Here are a few tips on how to make the trip more comfortable:

Avoid using earplugs during a flight. When you seal out background noise, your tinnitus may become more pronounced.

Sit in the front of the plane where the engine noise isn’t as loud. Anywhere in front of the wings will be an advantage.

Swallow and yawn as much as possible. This will open the Eustachian tube and allow air to enter the middle ear. When outside air pressure changes, the Eustachian tube supplies a bubble of air and the ears pop. When this happens, air pressure has been equalised.

Whilst the BTA makes every attempt to ensure the accuracy and reliability of this information, it is not a substitute for medical advice. You should always see your GP/medical professional.
**Chew gum or suck on a sweet.** It will cause you to swallow more often and help equalise the air pressure during take-off and descent.

**Stay awake during descent.** Descent is the part of the flight where you have a harder time adjusting to the pressure changes. Your Eustachian tube and ears don’t adjust as well when you are sleeping, so it’s important to stay awake.

**Try to avoid flying if you have a cold** or upper respiratory infection, as this can make it more difficult for your Eustachian tube to operate.

**A nasal decongestant may be helpful.** Even if you are not suffering from a cold, this may help keep your airways and tubes open for better pressure release.

**Leave your hearing aids in place,** as you may find them particularly helpful during a flight.

**Make full use of the entertainment offered during the flight.** Listen to music or watch the inflight film, as this helps to take your focus away from your tinnitus. If you tend to get nervous when travelling by air, the entertainment may also help you to relax. Avoiding stress and worry helps to minimise the effects of tinnitus.

## Take-off and landing

Modern aircraft cabins are pressurised. When taking off, the effect on the ears is minimal since the pressure in the aircraft cabin decreases. The air in the middle ear is at a relatively high pressure and passes down the **Eustachian tube** (connecting to the back of the nose), rather like releasing air through the neck of a balloon. If there is going to be a problem with equalising pressure in the middle ear, it tends to occur when the aircraft comes down to land. At this time the air in the middle ear is at a lower pressure than the air in the cabin.

If your Eustachian tube is blocked, your ears will not “pop” and pressure cannot equalise. Eustachian tube blockage can occur for a number of reasons. The most common are colds, sinus infections and nasal allergies, which stop the air flowing through the blocked Eustachian tube. This causes lower pressure inside the middle ear; the eardrum is then sucked inwards and stretched. Such an eardrum cannot vibrate naturally, so sounds seem muffled or blocked. In extreme cases - usually during rapid descent - the ears can become painful.

If Eustachian tube blockage is experienced during flying, tinnitus may appear to get louder temporarily. On clearing the ears (for example, by swallowing or yawning to

> **Whilst the BTA makes every attempt to ensure the accuracy and reliability of this information, it is not a substitute for medical advice. You should always see your GP/medical professional.**
Engine noise

Some people worry that the noise of the engines will damage their ears or cause their tinnitus to get louder. This is very unlikely. Many people actually find flying to be one of the times when they are completely free of their tinnitus because of the background noise of the engines.

If you find the noise of the engines disturbing, the solution is either to select a seat in front of the wing - or as a last resort - to use soft earplugs. If the sound level is not a problem, do not use earplugs as blocking outside sounds may make your tinnitus appear to be louder temporarily. If you have been fitted with wearable noise generators, it can be helpful to use them during a flight.

If you normally wear hearing aids, you should also wear them during your flight, as removing them may make your tinnitus louder and more noticeable. For people with hearing loss, it is often “straining to hear” that makes the tinnitus seem louder when on board an aircraft.

Pressure changes and tinnitus

In some cases, a change of pressure does have small and temporary effects on tinnitus. The frequency may change, and in some cases the loudness may temporarily increase or decrease. Most people with tinnitus do not experience these effects, and it must be stressed that, if they do occur, they are only temporary.

Grommets and perforations

Grommets are very small ventilation tubes used in the treatment of certain ear disorders. Perforations (or holes) can occur in the eardrum as a result of infection or injury. In either case, flying is actually less of a problem than if the eardrum is intact. This is because any change in pressure can be equalised across the eardrum through the hole or tube and does not depend on the Eustachian tube functioning normally.

Whilst the BTA makes every attempt to ensure the accuracy and reliability of this information, it is not a substitute for medical advice. You should always see your GP/medical professional.
Flying and middle ear surgery

If you have recently undergone middle ear surgery, or are about to do so, it is important to check whether or not you will be allowed to fly immediately afterwards. If you have had an eardrum perforation repair (myringoplasty) or a stapes operation for otosclerosis, you are usually required to avoid air travel for a short period whilst the ear is healing. Check with your ear specialist before making travel plans.

Other factors

Many people with hearing disorders - and particularly those who have tinnitus - can find their tinnitus aggravated by varying degrees of depression and anxiety. Some people become anxious because they are worried about flying. This can make tinnitus seem worse.

Relaxation and breathing exercises can be extremely helpful, particularly if practised beforehand. If the fear of flying is well established, some airlines (for example British Airways or Virgin Atlantic) run a “desensitisation” course and can be contacted directly. Do discuss your anxieties with your GP who may suggest a small dose of a tranquilliser.

References

Action on Hearing Loss. Flying and the ear 2010


Basu A. Middle-ear pain and trauma during air travel. BMJ Clinical Evidence. 2007. 0501.


Alternative formats

This publication is available in standard print on request.

Whilst the BTA makes every attempt to ensure the accuracy and reliability of this information, it is not a substitute for medical advice. You should always see your GP/medical professional.
For further information

Our helpline staff can answer your questions on any tinnitus related topics on 0800 018 0527 (Monday-Friday, 9am-5pm). You may also find our website www.tinnitus.org.uk helpful. We also offer a free tinnitus management e-learning programme at www.takeontinnitus.co.uk.

BTA publications

Our information leaflets are written by leading tinnitus professionals and provide accurate, reliable and authoritative information which is updated regularly. Please contact us if you would like to receive a copy of any of our information leaflets listed below, or they can be downloaded from our website.
*available in Easy Read

<table>
<thead>
<tr>
<th>All about tinnitus*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complementary therapy for tinnitus: an opinion</td>
</tr>
<tr>
<td>Drugs and tinnitus</td>
</tr>
<tr>
<td>Ear wax removal and tinnitus</td>
</tr>
<tr>
<td>Flying and the ear</td>
</tr>
<tr>
<td>Food, drink and tinnitus</td>
</tr>
<tr>
<td>Hearing aids and tinnitus*</td>
</tr>
<tr>
<td>Hyperacusis</td>
</tr>
<tr>
<td>Ideas for relaxation without sound</td>
</tr>
<tr>
<td>Information for musicians</td>
</tr>
<tr>
<td>Mindfulness for tinnitus</td>
</tr>
<tr>
<td>Musical hallucination (musical tinnitus)</td>
</tr>
<tr>
<td>Noise and the ear</td>
</tr>
<tr>
<td>Otosclerosis</td>
</tr>
<tr>
<td>Pulsatile tinnitus</td>
</tr>
<tr>
<td>Relaxation</td>
</tr>
<tr>
<td>Self help for tinnitus*</td>
</tr>
</tbody>
</table>

Whilst the BTA makes every attempt to ensure the accuracy and reliability of this information, it is not a substitute for medical advice. You should always see your GP/medical professional.
Sound therapy
Sources of mutual support for tinnitus
Supporting someone with tinnitus
Taming tinnitus
Tinnitus: a parent’s guide
Tinnitus: a teacher’s guide
Tinnitus and disorders of the temporo-mandibular joint (TMJ) and neck
Tinnitus and sleep disturbance
Tinnitus and stress
Tinnitus services*

Leaflets for children:
Ellie, Leila and Jack have tinnitus (for under 8s)
Tinnitus (for 8-11 year olds)
Tinnitus (for 11-16 year olds)
Ellie, Leila and Jack have tinnitus activity book (for under 8s)
Tinnitus activity book (for 8-11 year olds)
Tinnitus activity book (for 11-16 year olds)

Whilst the BTA makes every attempt to ensure the accuracy and reliability of this information, it is not a substitute for medical advice. You should always see your GP/medical professional.