Eustachian tube dysfunction

This leaflet explains about eustachian tube dysfunction (ETD). If you have any more questions or concerns, please speak to a doctor or nurse caring for you.

What is the eustachian tube?
It is the tube that connects the middle ear to the back of the nose. It is important for:
- regulating the balance of pressure between the ear and the outside world
- clearing fluid and secretions from the middle ear
- protecting the middle ear against infections, sounds, and secretions from the back of the nose.

It is usually closed, and temporarily opens when swallowing, yawning, chewing or sneezing.

What is ETD?
This is a common condition affecting about 2 out of 100 adults (1-2%) of any age but it is more common in children. It is a condition where the tube is not working properly. This can lead to problems with the ear, including: fluid behind the ear (glue ear), a sunken in (retracted) ear drum, or chronic ear infections (chronic otitis media).

What are the symptoms of ETD?
Common symptoms include:
- a sensation of fullness or blockage of the ear
- popping or crackling sounds
- discomfort/pain of ears which usually comes and goes
- reduced or muffled hearing
- ringing in the ears (tinnitus)
- abnormal sound of your own voice (autophony).

What caused your ETD?
The eustachian tube is narrow and can become blocked, or not open properly. We don’t really know why it happens, but ETD is more common in people with:
- a recent cold or viral respiratory illness
- chronic nasal inflammation, including hayfever or sinus infections
- smokers
- acid reflux
- significantly raised body mass index (BMI)/obese patients
- blockage at the back of the nose (including enlarged adenoid tissue, or scarring from radiotherapy to the head and neck).
If you only get symptoms when flying or scuba diving, do you need treatment?
ETD symptoms are common with changes in altitude or pressure, so can flare up when flying or scuba diving. These symptoms are often temporary and simple actions including chewing gum, swallowing, sucking on a sweet or yawning often help.

If these symptoms don’t go away or make it difficult to do your activities, you could benefit from an assessment with an ENT doctor.

How is ETD diagnosed?
The wide range of symptoms sometimes make diagnosing ETD difficult. The ENT doctor will ask about your symptoms, examine your ear, and sometimes the back of your nose.

A hearing test and pressure measurement of your middle ear can help us diagnose ETD. An ETD questionnaire can be used to help us see how ETD affects you. There is no simple test for ETD, and the diagnosis depends on a combination of the above.

What are the treatment options?
Treatments are usually separated into conservative, medical and surgical.

Conservative
If the symptoms have been associated with a cold or viral respiratory illness, symptoms normally get better when the infection goes away. Auto-inflation of the eustachian tube can reopen the tube by raising pressure in the nose. This can be done by closing your mouth, pinching your nose and blowing out. Specially designed devices, such as the Otovent, can be bought in your local pharmacy or online, and help to do this.

Medical
If you have signs or symptoms of nasal inflammation (rhinitis), you may be given:

- saline (salt water) nasal rinses
- nasal steroid drops or spray
- antihistamine tablets
- a short course of nasal decongestants (up to seven days), either tablets or a nasal spray.

Surgical
Surgery is usually only for patients with chronic or severe symptoms that do not respond to conservative or medical treatments. Options include:

- treatment of blockage at the back of the nose, for example, adenoidectomy – the tissue at the back of your nose is removed under a short general anaesthetic
- ventilation tube insertion (grommets) – see below.
- balloon dilation eustachian tuboplasty – see below.

What happens if you do not have treatment?
The length and severity of ETD symptoms can vary a lot, and often depend on the cause. In many cases the symptoms are temporary and can go away after recovering from illnesses, so no treatment is needed. Often, if the symptoms are mild (such as, no constant or long-lasting hearing loss or infections) or temporary, no treatment is required.
If you have ongoing or troublesome symptoms (for more than 12 weeks), that have not responded to conservative measures as above, or if you get other symptoms, including repeated or long-lasting ear discharge/infection and significant pain, you could benefit from an assessment by an ENT doctor to check your risk of developing long-lasting ear infections or hearing loss that may need treatment.

**What is a grommet and what are the risks of surgery?**
A grommet is a small hollow ventilation tube inserted across the ear drum through a small slit made in the eardrum. This procedure allows fluid to drain from the middle part of the ear, and allows air in.

This procedure can often be done under local anaesthetic. Grommet insertion is a very common, quick and safe procedure. These tubes normally stay in place for up to 18 months before your body naturally pushes them out.

The specific risks include:
- the grommet falling out sooner
- the grommet lasting longer than 18 months
- tube blockage
- chronic ear discharge/infection
- a permanent hole in the ear drum after the grommet has fallen out. This might cause an infection and repeated grommet insertion may be needed.

Although longer lasting grommets do exist, there is an increased risk of complications, including recurring infections/discharge, and a permanent hole in the ear drum.

**What is a balloon dilation eustachian tuboplasty and what are the risks of surgery?**
Balloon dilation of the eustachian tube is a minimally invasive method for treating chronic ETD. The procedure is usually performed under general anaesthetic but sometimes can be done under local anaesthetic. During the procedure, a balloon catheter is inserted into the eustachian tube through the nose using endoscopic guidance. Once it is in place, it is inflated for 2 minutes. The balloon is then deflated and removed.

This is successful in up to two thirds (60-90%) of cases. The ENT surgeon will discuss this with you if it is suitable. The specific risks include nosebleeds, the symptoms not improving, and the symptoms coming back, and needing a further procedure.

**What should you do next?**
If you have constant long-lasting symptoms that significantly affect your daily life, have other symptoms that you are concerned about, or would like to be considered for further treatment for symptoms of ETD, please contact us within the next six months to request an appointment, e: gst-tr.entaccessteam@nhs.net, t: 020 7188 7188, extension 88872.
Contact us
In an emergency go to the Urgent Care Centre at Guy’s Hospital, 8am-7pm. Outside of these hours go to the St Thomas’ Emergency Department (A&E). There are on-call ENT doctors 24 hours a day.

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit w: www.guysandstthomas.nhs.uk/leaflets

Pharmacy Medicines Helpline
If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.
t: 020 7188 8748, Monday to Friday, 9am-5pm

Your comments and concerns
For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.
t: 020 7188 8801 (PALS) e: pals@gstt.nhs.uk
t: 020 7188 3514 (complaints) e: complaints2@gstt.nhs.uk

Language and accessible support services
If you need an interpreter or information about your care in a different language or format, please get in touch.
t: 020 7188 8815 e: languagesupport@gstt.nhs.uk

NHS 111
This service offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.
t: 111 w: www.111.nhs.uk

NHS website
This website gives information and guidance on all aspects of health and healthcare, to help you take control of your health and wellbeing.
w: www.nhs.uk

Get involved and have your say: become a member of the Trust
Members of Guy’s and St Thomas’ NHS Foundation Trust contribute to the organisation on a voluntary basis. We count on them for feedback, local knowledge and support. Membership is free and it is up to you how much you get involved. To find out more, please get in touch.
t: 0800 731 0319 e: members@gstt.nhs.uk w: www.guysandstthomas.nhs.uk/membership