

Things That Go Bump In The Night

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Those who experience tinnitus or sound sensitivity or have a reason for focusing on the ears or hearing, frequently complained of a variety of ear symptoms which may at first seem bizarre and are sometimes misinterpreted by professionals. This short article is aimed at demystifying a few common symptoms, which often turn out to be everyday experiences, and not indicators of disease and dysfunction. They are also among the most common reasons for email to our website, and clearly a cause of concern to many.

Ear fullness and blockage

This is an extremely common complaint among patients with tinnitus and hearing loss and may also occur on its own without any other symptoms. It may be continuous or intermittent. Most patients and quite a number of professionals assume that this symptom must mean there is a physical abnormality, in the outer or middle ear, causing a problem, and which needs medical or surgical treatment. Many people will have already been treated with ear syringing and decongestant tablets or nose drops, without any change in the symptoms.

Ear wax, don't knock it (in)

While this can be a cause of ear blockage it should be easy to diagnose using an auroscope, a small light and funnel for looking into the outer ear canal. All doctors and audiologists should be trained in its use, but skills vary very widely, to the point where some professionals have clearly never been able to visualise the eardrum. This has to be a sad comment on the importance attached to otolaryngology in the undergraduate training of some universities, particularly in Europe. Ear wax is a natural part of the cleaning mechanism of the ear, and normally falls out of the ear in small quantities combined with pieces of dead skin. However, the common practice of cleaning down the ear with flannels, corners of towels and cotton buds often pushes the wax down the ear canal against the eardrum where it forms an immovable bullet. Naturally the first thing to check is whether ear wax is blocking the ear canal or not. Frequently not! If it does, syringing with warm water by a trained person is still best, simplest, and safe.

Middle ear blockage, not always what it seems

Behind the eardrum is an air-filled space where three little bones conduct the sound to the cochlear or inner ear, when the eardrum vibrates. The air is replenished through the Eustachian tube every time we swallow or yawn, something most people have experienced on air flight. Many patients come to us with a conviction that they have Eustachian tube blockage, and this will have been reinforced by professional diagnosis in the absence of any investigation. It is very easy these days to measure Eustachian function with impedance audiometry. A soft earplug placed in the outer ear connects with a device which measures the pressure behind eardrum. In over 97% of our tinnitus patients this proves to be the same as atmospheric pressure, indicating that the Eustachian

tube is functioning normally. Nevertheless, many patients have been treated for Eustachian dysfunction even though they didn't have it. Do not accept a diagnosis of persistent blocked Eustachian tube without this test.

Eustachian blockage no longer such a common problem

Concepts about Eustachian tube blockage, particularly in complimentary medicine, are generally very out of date, and reflect the common clinical findings in pre-antibiotic days, when chronic infection of the throat and sinuses was commonplace. In those societies where children are given regular courses of antibiotics, and live-in good housing, such chronic infections are now a rarity, compared with the high prevalence of these symptoms. Consequently, Eustachian dysfunction after childhood (when glue ear is common) is now rarely seen. In any case, impedance audiometry, taking some 30 seconds to perform, gives the answer.

The tensor tympani syndrome

This muscle in the middle ear which is attached to the back of the eardrum has no useful function. At a time when the eardrum was nearer the surface of body, it may well have been useful as a "blink reflex" to tense the eardrum when an animal was fighting. Certainly, a variety of stimuli, such as tapping on the face or blowing on the eyeball can make it contract in humans. From a developmental point of view, it is really one of the face muscles, from which it has migrated. It is easy to see how the tensor tympani might contract, in the same way that the eye might blink, during attack. This muscle may also increase in tension when there is a generalised increase in muscle tension with stress, or anxiety about ear symptoms. Again, impedance audiometry can measure increased contractions of this muscle, and help with the diagnosis.

Insects in the ear

When the tensor tympani muscle contracts, it pulls the eardrum inwards slightly, so that a feeling of blockage can also be associated with a genuine feeling of eardrum movement. Just as facial muscles can contract, they can also twitch! Most people are familiar with twitching muscles in the corner of the eye, very often when under stress. This may be greatly exaggerated in some people and become what is called a facial tic. If the tensor tympani muscle is affected in the same way, the twitching produces a sensation of fluttering of the eardrum, rather like having a small insect in the ear. Again, most people that you ask will have had this experience at some time or another. If it occurs frequently and in combination with other ear symptoms, it naturally causes concern, even though it is not part of a disease process. In most cases the increased muscle activity is caused by a general increase in tension (autonomic activity), which may be part of a reaction to tinnitus, or to other stressful events.

This means that improvements in these other conditions, combined with relaxation techniques can reduce the muscle tension and twitching. This was first described by Klockoff in his original paper on the tensor tympani syndrome. We estimate that over 40% of our patients at the tinnitus and hyperacusis centre in London complain of, or remark on, symptoms relating to the tensor tympani muscle. Just as with tinnitus, conscious experience can be enormously enhanced by a process of focusing on what is considered to

be a negative event. Reassurance about the mechanism of these ear symptoms often results in their disappearance. In my career I have only found it necessary to perform surgery to cut the tensor tympani muscle to provide relief of symptoms caused by it, in 10 cases. However, this relatively simple procedure remains an option for those who do not respond to conservative management.

