

Thundering club music and booming personal stereos have increased the risk of tinnitus, or ringing in the ears, in young people. Caroline Swinburne reports on a campaign to keep the noise down

# Sound effects

**T**HE CONTINUOUS noise in her ear dominates her life, says Cheryl Cornwell, who has acute tinnitus. 'Sometimes it's just a ringing or clicking – but when it's very bad it's like an aeroplane taking off. I have to live with it every day, 24 hours a day. But I find it very difficult to explain to people I'm hearing sounds which don't exist – I worry they'll think I'm a bit odd.'

Tinnitus, from the Latin *tinnere*, 'to ring', is the term for noises heard in the ears that do not originate from an external source. In a mild form the condition is extremely common; most people have experienced ringing in the ears after hearing loud sounds such as hammering or drilling, or spending time at a club or concert. But about 10 per cent of the population are affected by tinnitus frequently or constantly, and in about five people in 1,000 the condition is bad enough to affect their lifestyle.

Sufferers may experience sleep loss, poor concentration, general difficulties with mood and even depression, which can lead to suicide. This used to be a condition that primarily affected older people. But while ageing is still a major cause, recent reports show there is also an increasing number of younger people with tinnitus. Many are victims of incredible noise levels in clubs, pubs, cinemas and even restaurants. 'Some of the sounds we're subjected to these days really are extraordinarily loud,' says David Baguley, head of audiology at Addenbrooke's Hospital in Cambridge, and one of the country's leading experts on tinnitus.

'Of course, there are laws governing how we listen to sound, but in my opinion they're regularly broken, in clubs and raves, as well as in some industrial situations.'

In an attempt to improve awareness of these dangers, the British Tinnitus Association (BTA) is spearheading a campaign aimed at professionals and the public. Education packs, *Don't Turn it Off*,

*Turn it Down!*, have been sent to schools across the country. At Cottenham Village College in Cambridgeshire, biology teacher Jean Doody is using the pack to warn a class of rowdy teenagers of the risks they are running with their listening habits.

## Muffled ears

'When I go to discos and clubs I do like the music to be really loud,' says 14-year-old Mathew Rickard. 'You can hear all the words, the ground shakes with the beat. It's more of an experience.' But Mathew admits he has felt the after-effects. 'Sometimes when I go home afterwards it feels like my ears have been muffled – like they're full of cotton wool. I can't speak to anyone and it feels like my voice has gone.'

The BTA's teaching pack involves lessons on the structure of the ear and how we hear, what can go wrong and exercises designed to help teenagers assess

whether their listening habits are dangerous. In one test pupils set their personal stereos at the level they normally choose, put on the headset and ask other members of the class to tell them how far away the sound is audible. Anything over 2m is considered dangerous; Mathew's stereo can be heard across the classroom. 'I guess I listen a little too loud,' he admits. 'I think I will try to be more careful in future – this has all been a bit of a warning.'

Encouraging young people to be more careful in their listening habits is only one element of the campaign. The BTA is also trying to address a lack of awareness among health professionals by sending out information to practice nurses, GPs, and ENT nurses.

'Many doctors still take the attitude that there's nothing that can be done about tinnitus,' says the BTA's Val Rose. 'They tend to tell patients that they must simply go away and try to forget about it. But that's the most awful thing to say. There may not yet be a cure, but there are things that can be done, both in assisting people who already have the condition and also stopping people getting it in the first place.'

While most people realise extreme noise levels may cause tinnitus, few are aware of the host of other triggers, including head and neck injuries and even ear syringing. Tinnitus is also an occasional temporary side effect of some medicines, including aspirin, and may be brought about by stressful events such as divorce or bereavement.

While many tinnitus patients have suffered damage to some of the tiny hair cells in the inner ear, resulting in an abnormality in the signals sent to the brain,

this is not the only reason for the condition.

'In many patients the hair cells are damaged,' explains Mr Baguley. 'But some people with hair cell damage don't get tinnitus. And some patients who have tinnitus have perfectly healthy hair cells. Also, some people with tinnitus find it very upsetting, others live with it okay.'


'I think the reason for these differences is because, in fact, our hearing system is far from passive, just sending messages from the ears to the brain. The nerves are actually continually firing, and you only hear sound when the brain imposes a pattern on that random activity. Some tinnitus patients who have nothing wrong with their hearing have simply become very aware of that background activity.'

Much of the search for a cure for tinnitus is focused on identifying the chemical activity in the brain that causes it to register noise. Some health professionals think the condition should be treated primarily as a psychological problem. However, most hospitals, including Mr Baguley's department at Addenbrookes, adopt a multi-disciplinary approach.

'When I go home it feels like my ears are full of cotton wool and my voice has gone'



Mathew Rickard's personal stereo could be heard across the classroom



'We're looking at treatment strategies that treat the tinnitus distress and reduce awareness of the noise, without actually being psychological therapies,' he says.

One common strategy, called habituation therapy, involves giving sufferers a wearable generator set to produce a constant white noise. The idea is to train the brain to filter out constant noise, in the same way that people living under a flight path can eventually find themselves able to ignore the sound of the planes.

Relaxation therapy is also frequently used; any sort of stress immediately makes the condition worse.

'Tinnitus sufferers are often extremely anxious about their condition, but find it very difficult to ask for help,' says staff nurse Sue Woodford, who works in Mr Baguley's department. 'This in itself is stressful – people do often think that if they're hearing noises in their head they must be going mad.'


She says many nurses are best placed to offer reassurance. 'They'll go to see the doctor to talk about something else, but don't want to take up the doctor's time mentioning tinnitus,' she says.

#### **Talk to someone**

'It's only when they're on the way out that they will say to me: "Oh, by the way, I've got this noise. Is there anything you can do?" Sometimes they just need someone to reassure them. I tell them that although there isn't a cure – yet – there are things you can do.

'I put them in touch with the BTA and support groups and encourage them to speak with someone who knows what they're going through.'

Cheryl Cornwell says sharing her experiences with other tinnitus sufferers has been invaluable and would encourage others to join a support group. 'My advice is not to be afraid to talk about it. Don't get stressed out, keep calm, and try to meet others with the condition.

'At the moment no one can make the noises go away – maybe that will come in the future. But even now there is a lot that can be done to help you live with them' 

**Caroline Swinburne is a freelance journalist**

The British Tinnitus Association can be contacted on 0114 2730122 or visit the website at: [www.tinnitus.org](http://www.tinnitus.org)