

# Listen up!

Festivals, parties, gym classes, and even the daily commute – the world is getting louder and putting your hearing at risk. *Clare Thorp* cuts through the noise

**Genevieve Rogel was in her mid-twenties when she noticed she had the TV on louder than everyone else.** ‘I constantly had to turn the volume up,’ she says. ‘I was also struggling to hear colleagues in meetings and keep up with friends’ conversations in noisy bars.’

She ignored the problem for a few years until her sister convinced her to have a hearing test. Told she had some hearing loss in one ear, the audiologist recommended a hearing aid. ‘I was in denial,’ says Genevieve, a project manager from Surrey, who admits that the hearing aid didn’t come out of the box for three years. ‘My great-grandmother used to wear a hearing aid, and I wasn’t even 30.’

When a later test revealed that her other ear was deteriorating too, she couldn’t ignore it. Now 36, Genevieve has been wearing aids in both ears for five years. ‘At first, I didn’t want anyone seeing them and I always wore my hair down. But they’re part of me now, and the improvement in sound quality has been life-changing.’

This could soon become a reality for more of us, as the World Health Organisation (WHO) predicts noise-induced hearing loss is a looming public health crisis, with 1.1 billion young people worldwide at risk. A study in America found that one in five 20-29 year olds already has hearing damage, and it’s our lifestyles that are to blame.

When an MRI scan ruled out medical issues and genetic links, there was only one likely cause for Genevieve’s hearing loss: exposure to loud noise. ‘When I was younger, I used to go to parties night after night,’ she says. ‘I come from South Africa and we’d descend on a beach town for a week of clubbing. I remember dancing next to speakers that were taller than I was. The music was so loud that it vibrated against me.’

While we all know to slap on SPF when the sun shines, how many of us carry earplugs to protect our hearing? Gemma Twitchen, senior audiologist for Action On Hearing Loss, thinks it’s a real concern. ‘We’re exposed to noise on a regular basis. You only have to walk down the street to see most people are wearing headphones.’

According to WHO, nearly half of 12-35 year olds regularly listen to music at unsafe levels. Some devices can reach 103dB on maximum volume – way over the recommended limit of 85dB, and the level at which noise becomes unsafe. Meanwhile, 40 per cent of us regularly attend loud concerts, which can reach 112dB, enough to do damage to our ears in just 66 seconds.

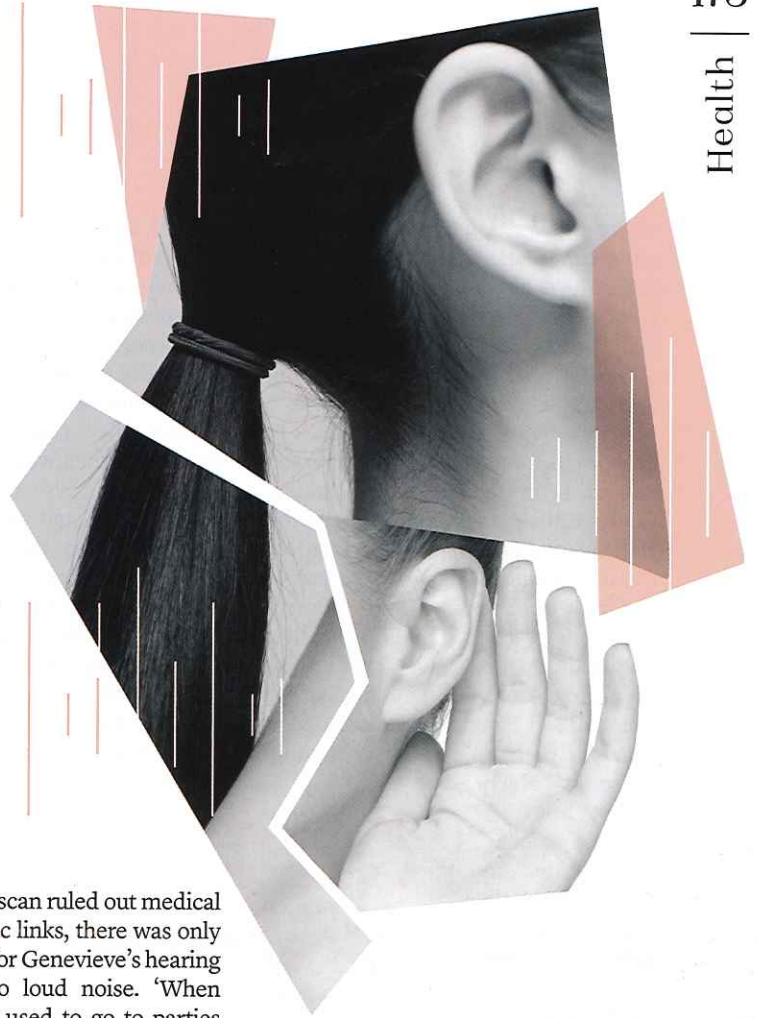
It’s not just music. Researchers at the University of Toronto found that city living can be dangerously loud,

with commuters exposed to the most damaging noise levels. And while that spinning class might be great for your motivation, you may want to remind the instructor to monitor the volume levels. One study shows some workout classes reach 94dB.

As the environments we’re in get louder, we turn up the volume in an attempt to drown out the noise, exacerbating the problem further. No wonder that 51 per cent of us sometimes can’t hear what someone is saying, while 41 per cent regularly have to ask people to repeat themselves or speak louder\*.

Hearing damage is cumulative and builds up over time, meaning many of us have no idea it’s happening. We’re born with thousands of hair cells in each inner ear that help convert sound waves into electrical signals for the brain. These hairs bend when exposed to noise, then straighten. But – like blades of grass – if they’re constantly trampled on, at some point they’ll stay flat.

Scientists have also discovered another type of early hearing loss, ►



where sensitive nerve fibres in the inner ear are damaged before the hair cells. These fibres make sound clearer so when they're damaged, you might still hear noise, but not always understand it. This 'hidden' hearing loss isn't picked up on standard tests.

Hearing loss has been linked to depression, anxiety and an increased risk of heart disease. What's more, Gladys Akinseye, an audiologist at the Harley Street Hearing clinic in London, has seen an increase in younger people seeking treatment. 'Their primary concern is developing tinnitus, which is triggered by excessive loud noise exposure,' she says. Tinnitus, where you hear a sound permanently in your ear or head - ringing, buzzing, whistling - which is not from an external source, affects up to 6 million people in the UK. Almost half of us have experienced it at least once, and even temporary bouts should be taken seriously.

'If you have been in a noisy club and your ears are ringing, that's a sign that there's been temporary damage,' says John Phillips, a consultant ear, nose and throat surgeon, and member of the Advisers' Committee of the British Tinnitus Association. 'It's called temporary threshold shift and it's a warning that, if you keep on being exposed to loud sounds, then permanent damage will follow.'

Sarah Povey, an office manager from London, ignored these early signs. 'My life revolved around live music. I'd go to two or three gigs a week, festivals and out clubbing.' She then sporadically experienced a high-pitched ringing in her ear, but it always went away, until one day, when she was 27, it didn't and she was diagnosed with tinnitus. 'For the first year, I slipped into a terrible hole emotionally. My social life ceased and it was really difficult for everyone around me. You really don't appreciate

silence until you realise you're never going to hear it again.'

Sarah has tried a combination of treatments, including wearing noise generators that play white noise to buffer the sound of the tinnitus, along with counselling and cognitive therapy to retrain her brain's reaction to it. The ringing is still always there - she's just learned to live with it. 'At the beginning, it's all you focus on. Now, there are times when I don't notice it, but stress makes it worse. A hot bath helps, as does exercise and reading. It's about allowing your mind to get consumed by something else.'

Sarah still goes to gigs, though never without earplugs, and stands well away from the speakers. 'I wish that I didn't have it, but I can't let it define me.'

There isn't a cure for tinnitus or hearing loss, but scientists are working on stem cell therapy to regenerate hair cells in the inner ear, and bio-tech

companies are developing drugs intended to repair hearing damage. One recent study\*\* has found a way to reset the brain's neural pathways by replicating the sound of tinnitus in headphones while simultaneously applying mild electric shocks to the neck or cheek to fool the brain into thinking the 'phantom sound' is coming from elsewhere. Meanwhile, 'hearable technology' has become a buzz area for tech start-ups. An app called Fennex allows Apple EarPods to work like hearing aids by amplifying sound and allowing you to adjust sound pitch levels, which could help people with mild hearing issues.

For now, prevention is the best plan of action. If you can't hear someone two metres away because of background noise, it's likely the sound levels could be hazardous. And if someone else on your commute knows exactly what songs you're listening to on your cans, it's probably too loud. ■

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## PROTECT YOUR EARS

### KNOW YOUR LEVEL

Download the Decibel 10 app on your phone to measure the sound levels you're exposing yourself to every day. Our ears can handle eight hours of exposure to 85dB, but only one hour at 94dB.

### SWITCH IT UP

Invest in noise-cancelling headphones. They cut out background sound - such as rattling train carriages - so you don't have to crank the volume up so loud.

### CAP IT

All EU devices have a warning that pops up at 85dB. Select the option in your phone settings that will stop you from going over that.

### PLUG EM

Don't hit the festival circuit without earplugs. They needn't affect your experience - Isolate Aluminium Earplugs (from £24.99) block out loud noise without affecting sound quality.

### QUIETEN DOWN

At loud events, take regular breaks to give your ears a break. After exposure to high volumes, the hair cells need time to recover.

### CATCH IT EARLY

If you suspect your hearing isn't perfect, ask your GP for a referral to an audiologist.