Technical Note

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MUSIC TO MY EARS CAMPAIGN: PREVENTING A DEAF GENERATION

Nick Parkyn Audiologist: Attune

The Music to My Ears Campaign was established in 2010 to raise awareness of the potential risk of permanent hearing damage as a result of over-exposure to loud music. It's no secret to most people that working around power tools and heavy industry can damage your hearing, which is why we have a Noise Code of Practice to set guidelines for prevention of noise-induced hearing loss in the workplace [1]. But young people working in heavy industry today are wearing their earplugs and ear muffs all day at work, only to take them off on a Friday to bombard their ears with high intensity sound at nightclubs and pubs, often exceeding their weekly safe noise dose in one night. There is a plethora of research showing entertainment venues exhibiting sustained and damaging noise levels, including venue decibel tests released in the Sydney Morning Herald (September 16) indicating that most venues tested are playing music over 100dB, causing permanent hearing damage after 15 minutes [2]. Whether or not sound is perceived to be pleasurable or not has no bearing on its damaging effects, although it is human nature to assume so, as studies such as Australian Hearing's Binge Listening Report have shown.

Let's look at the facts. According to Australian Hearing's 2010 Binge Listening report, currently 1 in 6 Australians have hearing loss and this is predicted to rise to as much as 1 in 4 by 2050 [3]. Clubs often average over 100 decibels which can cause permanent damage after 15 minutes. According to the Australian Hearing Health Senate Inquiry 2010, the costs of hearing loss to Australia were estimated at \$11.75 billion in 2005, which represented 1.4 per cent of Australia's then GDP [4].

Part of the problem is that noise-induced hearing loss is cumulative, meaning that young people often suffer no immediate adverse affects to social noise exposure at damaging levels. While high noise exposure does cause a shift in hearing thresholds that usually improves within 16 hours (but can take days), it is understood that this temporary threshold shift never recovers absolutely. With repeated exposure to high levels of noise, from music, heavy industry or otherwise, these small increments of hearing loss cumulate insidiously over time. As an audiologist at Attune's Ipswich clinic near Brisbane, the author commonly experiences reports from clients along the lines of "my hearing is fine, I can hear a car down the street before my children can, I just don't tend to be very social anymore because everybody just mumbles these days". After a thorough audiometric examination, these kinds of clients are often found to have a steeply-sloping high frequency hearing loss, often with normal hearing in the low frequencies, which explains why they can hear the hum of a car engine clearly but not high-frequency consonants of human speech. This type of audiometric configuration is typical of a noise-induced hearing loss, and adds to the insidious nature of the problem, meaning that it often goes undiagnosed for far too long. The impact of permanent hearing loss to quality of life is all too obvious to audiologists, the hearing impaired, and their families. Hearing aids can provide some benefit but are by no means a cure.

At Attune, the author commonly sees young patients in their teens and twenties reporting tinnitus, a condition commonly associated with noise-induced hearing loss. Tinnitus may be experienced temporarily by young clubbers, but this often goes away, giving the impression that the damage is temporary. Not so for Daniel Lalor, campaign director of the Music to My Ears Campaign. After a night out, the ringing in his ears, which he had experienced before and expected to stop, never did. While suffering the anxiety and distraction associated with tinnitus, Daniel researched about legislation regarding noise levels in venues, and was shocked to find that while patrons are protected under the same guidelines that protect bar staff, there is almost always no safeguards in place to warn patrons of the risks of hearing damage at venues, let alone to prevent it. It seems that the naïveté regarding the damaging affects of social noise exposure is not just a bugbear of the young party-going population. Through the Music to My Ears Campaign, Daniel hopes to affect positive social change by raising awareness of the nature of recreational noise-induced hearing loss and prevention, allowing availability of free and discreet earplugs at venues, and holding Healthy Hearing Events to provide a safe model for venues to adopt and promote the cause.

The longitudinal studies do not yet exist to alert us to the extent of noise-induced hearing loss from today's pubs and clubs, and with the cumulative nature of noise-induced hearing loss, immediate effects are rarely seen. Do we have to wait until the permanent damage is already done, as has happened so often in the past with health disasters such as cigarette smoking and asbestos? While the campaign has received some support and exposure amongst the audiological community from Attune, Australian Hearing, and the Audiological Society of Australia, more collaboration is needed from professionals, media, and venue and event organisers. Visit www.musictomyearscampaign.org for more information about recreational noise exposure and the campaign, and sign up to the mailing list for up to date information as it happens.

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Fax (08) 9474 5977
gabriels@iinet.net.au