



[hearingconservation.org.uk](http://hearingconservation.org.uk)



December 2021

## Welcome

Welcome to the December edition of the UKHCA Newsletter.

We'd like to wish all our members and collaborators a fantastic, peaceful and recuperating Christmas period! We appreciate all your contributions and ongoing support and look forward to further engagement in 2022!!

It has been another busy year for the Association with a number of publications in the pipeline and we are looking forward to putting on a number of events in 2022. Make sure you keep in touch with us to be the first to hear about our exciting developments via our newsletter, social media and by becoming a [member](#).

In this edition we have articles on headphone use at work, the benefits of biophilic design for hearing and other updates from our members and collaborators including an update from the HSE.

As ever we welcome support for our SIGs from current members and those looking to join our Association. We also welcome feedback on our work and are always appreciative of articles or new stories for future editions. Please contact us with any thoughts or feedback at [enquiries@hearingconservation.org.uk](mailto:enquiries@hearingconservation.org.uk)



**New Standard and upcoming guidance on Fit Testing**

There is a new published standard EN 17479:2021- Guidance on selection of individual fit testing methods. This standard provides guidelines for different test methods that are commercially available, and describes their uses and limitations. This is not a requirement standard and as such does not cover technical specification for manufacturing test equipment.

**The UKHCA are due to publish our own guidance on fit testing methodologies and their role in hearing conservation in the New Year.** Please contact [clare.forshaw@hearingconservation.org.uk](mailto:clare.forshaw@hearingconservation.org.uk) if you would like to receive a copy

## Headphone Use at Work



Workers could be damaging their hearing when wearing headphones and headsets for work purposes and to listen to music while working.

Over the past 15 years or so, since the latest Control of Noise at Work Regulations came into force, most employers responsible for noisy workplaces have been aware of their legal duty to protect their employees' hearing from high levels of noise. Noise can be defined as sound which you don't want to hear, such as that from a loud machine or tool. In such workplaces, hearing protection and other control measures – including exposure monitoring and health surveillance – have become commonplace.

What many people do not appreciate is that the exposure to 'sound' – defined as something you do want to hear, like the spoken word or music – from headphone and headset use can be equally as damaging to your hearing as unwanted occupational noise generated as a by-product of work processes.

You can read more about this subject [here](#)

## Biophilic Design and the impact on Hearing Conservation

Biophilic design – describes the process of applying the theory of Biophilia to design concepts in the built environment in order to create the optimum environment for physical, mental, as well as environmental and economic health.

The sound level preferred by humans indoors is similar to that experienced outdoors (around 50db). In an average office sound levels are between 60 and 65db. 55db is considered the “lid” on the acceptable level for intellectual work.

Most offices and interior spaces, factories, venues, shopping centres, schools, hospitals especially, are built and “fitted out” using concrete, glass, metal, laminate, and other reflective surfaces. Sound travels in a straight line, so when noise hits these materials, the sound bounces back at you. The more noise the more “bounce”, the louder the noise the louder the “bounce”. Thus, the initial sound is compounded. The issue is that there is nothing for the noise to be muffled by and to stop the soundwave “bounce”. Therefore, we experience an increase in sound, and additional ambient noise such as colleague chatter increases the “bounce”. Biophilia offers an acoustic solution; plants are irregular shapes, providing small pockets of space for sound waves to become trapped or diffused. The original noise has been lessened and the echo reduced.

Read more about this fascinating topic [here](#)

## Noise induced hearing loss of pandemic-like proportions?

The story of Helen Keller is an inspiring one. Born in 1880, she lost her sight and hearing after a bout of illness at the age of just 19 months. Despite this, remarkably she became an author, disability rights advocate, political activist, and lecturer and said of her disability that “*blindness separates people from things, but deafness separates people from people*”. The Covid pandemic, rather like deafness, has also separated people from people but ironically it is (enforced) separation which has been part of the mitigation to fight transmission of the disease, particularly in the workplace.

Keeping a safe distance apart while at work may well have highlighted that you might have a ‘noise problem’. The simple test is, do you have to shout to communicate face-to-face at 1m? There are of course more scientific methods for noise measurement, namely the sound level meter and personal noise dosimeter, but these can’t yet be deployed at large scale, on a continuous basis. Wearable technology and connectivity of data to the cloud does offer that possibility and we are seeing such developments already in gas detection and lone worker protection systems. It’s only a matter of time.

Read the full article from Neal Hill of One Plus One Consulting Ltd [here](#)

## HSE Update

HSE ran their Health and Work Summit in November, which covered raising awareness of workplace noise. Delegates were asked to comment on the size of the workplace noise problem. HSE intends to use the responses and questions asked at the event to focus their response on future inspections and engagement work.

HSE are currently doing research on electronic hearing protection and on noise from hand held grinders. When this work is complete HSE intend to publish the results at conferences and through technical papers. ***Some of this work has been assisted by members of UKHCA so HSE want to thank you for your support, and we will give a full update once publication has been agreed.***

The UKHCA are supporting HSE and NIOSH in their endeavours to run an [International](#)

Noise Working Group. The aims of the meeting are

1. To explore the possibility of global collaborative programs in the period 2022-27 to improve the effectiveness of occupational hearing conservation programs building on the review of international experience in a Workshop held at InterNoise21.
2. To plan collaborative work to demonstrate means of effective and efficient reduction of the high rates of occupational hearing damage recorded in many countries.

If UKHCA members are interested in being involved, then please email [chris.steel@hse.gov.uk](mailto:chris.steel@hse.gov.uk) directly to be added to the mailing list. It is expected that an online meeting will be held towards then end of January 2022.

## Are We Monitoring the Right Health Outcomes for Noise Exposure?

This is the question being considered by the UKHCA in our health surveillance and hearing health Special Interest Group.

Most of us are familiar with the ill health effects of excessive noise exposure being linked to noise induced hearing loss. In fact, we have lots of great epidemiological dose response data demonstrating expected hearing loss by daily exposure levels. However, our knowledge of broader health implications of noise exposure is becoming clearer and there are now questions to be asked as to whether monitoring ONLY hearing loss as the ultimate ill health outcome is masking a much wider impact and associated personal devastation.

We now have a well-established [link](#) between early onset of dementia associated with mild to moderate hearing loss and many other studies linking noise to mental ill health effects, fatigue and cardiovascular disease.

## Dementia & Hearing Loss



Mild hearing loss: **2 times**  
more likely to develop dementia

Moderate hearing loss: **3 times**  
more likely to develop dementia

Severe hearing loss: **5 times**  
more likely to develop dementia

The HSE judge the implications of noise exposure in workplaces by the following reporting schemes;

- The number of new cases of noise-induced deafness qualifying for Industrial Injuries Scheme [disablement benefit](#),

- the estimated number of cases of hearing loss seen by Audiologists and Occupational Physicians in the OPRA/OSSA reporting schemes
- Estimates from the [Self-reported Work-related Illness \(SWI\) surveys](#): where individuals are asked to self-report if they worked in the last 12 months if they have suffered hearing problems which they believed to be work-related.

The WHO/ILO produce a Global Monitoring Report of Joint Estimates on the number of deaths and disability adjusted life years (DALYs) attributable to occupational risk factors, including occupational noise. Their estimates for exposure to occupational noise also only focus on noise induced hearing loss and do not include other health outcomes.

With a Working Group of individual experts, WHO and ILO recently carried out a systematic review and meta-analysis on the current bodies of evidence on the effect of exposure to occupational noise on the following additional health outcomes: (1) ischaemic heart disease, (2) stroke, and (3) hypertension (Teixeira et al., 2021). It was judged that at this time there is insufficient evidence of harmfulness to proceed to official estimates. They agree that this judgment may change as the bodies of evidence expand and their certainty improves.

So, **are we monitoring the right data?** Are our current approaches truly reflective of the ill health impact? Contact us with your thought and perspective on this please.

## Find Your Quiet Place Challenge – RESULTS ARE IN!



During October, UKHCA members supported the Find Your Quiet Place challenge which aimed to raise hearing health awareness and put venue managers on notice about excessive noise.

The challenge managed to **collect over 2,000 SoundChecks at 1,700 unique venues**. The data from the FYQP Challenge will be used to establish the initial benchmark for sound levels across a range of venue categories. The key findings demonstrated that;

- The **average sound level for all venues registered at 76 dBA** - bordering Loud and Moderate. Half of the venues were deemed Safe for Hearing Health and the rest were Too Difficult for Conversation. Alarming, **25% of venues pose a danger to hearing health**.
- During peak days/hours, the average sound level at restaurants registered at **78 dBA which is Too Loud for Conversation**. About **35% Endanger the Hearing Health** of patrons and employees, with **35% deemed Safe For Hearing Health**.

You can read more about Soundprints data findings in [this blog post](#).

## WHO World Hearing Day 2022

World Hearing Day | 3 March 2022



# To hear for life, listen with care!



**Hearing loss due to loud  
sounds can be prevented**

#worldhearingday



*Make Listening Safe*

The WHO have recently announced the theme of World Hearing Day 2022; "[To hear for life, listen with care](#)" This means participants will focus on the importance of safe listening as a means of maintaining good hearing across the life course.

The UKHCA would like to partner with as many of our members and interested parties to coordinate a combined campaign with consistent messaging around the topic in order to really flood social media channels with a recognisable and powerful message about protecting hearing from leisure exposure and headphone use. If you are interested in joining us or can support with marketing resources, please contact us at [clare.forshaw@hearingconservation.org.uk](mailto:clare.forshaw@hearingconservation.org.uk)

You may also be interested in a new Wikipedia article on [Safe Listening](#), which is now available from [The National Institute of Occupational Safety and Health \(NIOSH\)](#).

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*If you feel you have a news story, innovative ideas or a challenge for others around hearing conservation and preventable causes of hearing health harm please contact us. We are driving forward work through our Special Interest Groups.*

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**The UK Hearing Conservation Association**

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