



Greetings from Kelly Hearing

What have we been up to?

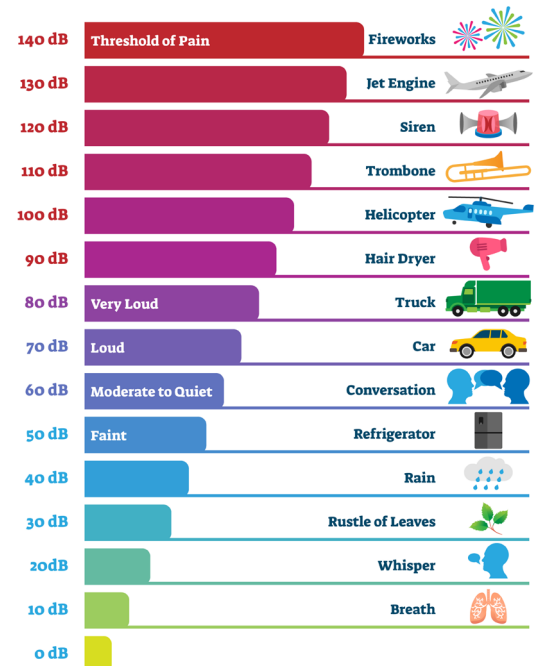
- Naomi was invited to give a guest lecture in UCC in September 2021 speaking about her published research 'Tinnitus management in Ireland: a survey of general practitioners'.
- All the staff in Kelly Hearing have now been fully vaccinated against COVID-19.
- A Hyperacusis Course run by the University of Nottingham was completed by all our Audiologists in March/April 2021. It featured some of the world's most notable researchers in the areas of hyperacusis and misophonia (conditions of abnormal sound tolerance). This course highlighted the need for further research and international consensus when testing and managing these disorders.
- IAA (Irish Academy of Audiology) Virtual Conference was held in April 2021 and included some excellent guest speakers and discussions surrounding audiological care in Ireland.
- The 'Roger On' virtual launch took place in July 2021. Ann was honoured to be asked to speak at this event, sharing her experiences and patient success stories using Roger technology.
- Emer undertook a Lyric training course in August 2021.

Safe Listening

Excessive and prolonged noise exposure can lead to permanent hearing damage.

With the widespread use of ear devices for listening to music, phone calls, streaming, we are now exposed to longer periods of potential noise damage, not to mention the background noise in shops, restaurants, public transport and other public places. According to the World Health Organisation (WHO) 1.1 billion people are at risk of permanent hearing loss from listening to music at loud volumes over prolonged periods of time. For example, the sound of a typical conversation is 60 decibels, which does not cause any hearing

DECIBEL SCALE



problems. But a bulldozer, at about 85 decibels, can lead to permanent damage after just eight hours. Headphones at maximum volume can impair hearing in just four minutes. Sounds like thunder or a vuvuzela can get to 120 decibels, damaging hearing after just nine seconds.

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Help prevent Coronavirus



Wash your hands



Cover mouth if coughing or sneezing



Avoid touching your face



Keep surfaces clean



Stop shaking hands and hugging



Keep a safe distance



Safe Listening (continued)

SIGNS OF NOISE DAMAGE:

Tinnitus or ringing in the ears can result from overstimulation of inner ear cells and structures. Ringing can continue even after the noise has stopped.

Hearing loss: continued excessive noise exposure or sudden extremely loud impact sounds can cause irreparable hearing damage. This usually starts with the inability to hear higher pitched sounds or voices in background noise as clearly as before, in time all speech frequencies can be affected.

Less obvious signs of noise damage are on stress and mental health. Trying to carry out a conversation in a restaurant with moderate background music or shops that have loud music playing is difficult and can cause undue stress and frustration.

What can you do to make listening safe?

(by the World Health Organization)

■ Keep the volume down

Listen to personal audio devices at a volume level below 60% of maximum. Use carefully fitted, and, if possible, noise cancelling headphones.

■ Protect your ears from loud sounds

Wear earplugs in very noisy venues. Move away from sources of sound, such as loudspeakers.

■ Limit time spent engaged in noisy activities

Take short listening breaks away from loud sounds. Limit the daily use of personal audio devices.

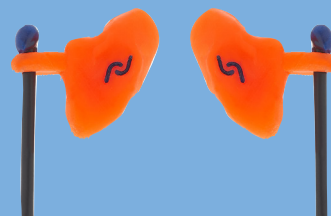
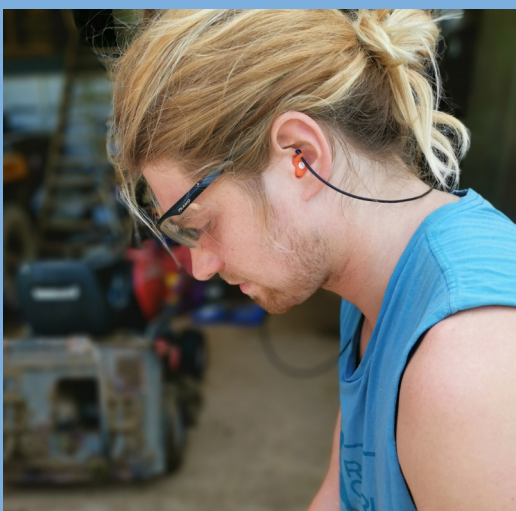
■ Monitor listening levels

Use smartphone apps to monitor your sound exposure. Choose devices with built-in safe listening features.

■ And most importantly - Heed the warning signs of hearing loss

Seek help from a hearing health care professional in case of tinnitus or difficulty in hearing high-pitched sounds, understanding speech, especially over the telephone; or following conversations in noisy environments.

Contact the clinic if you are interested in custom made ear protection for environments such as music events, shooting, industrial use, DIY or gardening.





New Advances in Technology and Research: Roger On

Roger On is the latest remote microphone technology to be released from manufacturer Phonak. The award-winning device allows conversations to occur seamlessly in background noise and over distance. It features MultiBeam 2.0 Technology* - this selects the microphone beam with the best signal-to-noise ratio (SNR) and tells the wearer the direction of the speaker. It offers three interchangeable modes; table, presenter and pointing which means users have the flexibility to focus on the conversations that truly matter at work, in lectures and during social activities. An app is also available to allow better customer control of their device. It also can connect to your TV streaming high quality sound to the hearing aids. Roger On is now the recipient of three awards for product design and innovation; the iF Design Award, German Innovation Award, and the "Red Dot" Award.



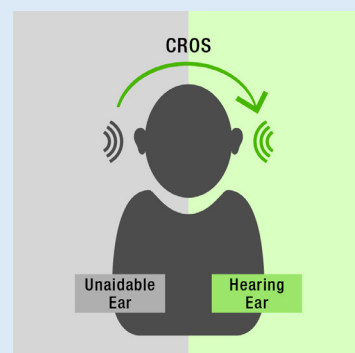
Self-fit Lyric



Lyric is an invisible hearing aid that is worn 24/7. In the past, patients have had to come to the clinic every 2 months for a change of device. A self-fit option has recently been FDA approved. This means suitable patients can self-insert the device every other change. This can reduce appointment frequency and time as it means you only need to return to the clinic every 4 months. Please speak with the clinic if you are interested in learning more about this option.

CROS hearing devices

CROS stands for Contra-Lateral Routing of Signal. A CROS hearing aid is a solution for unilateral (one-sided) hearing loss, which helps patients hear better in noise when speech is presented to the non-hearing ear. The latest advances in CROS technology mean the devices have direct Bluetooth compatibility, they can connect to multiple Bluetooth devices to allow clear crisp signals be streamed directly to the hearing aids. The CROS can come in either a rechargeable or battery version and are compatible with the latest hearing aid software. New technology CROS devices are due to be launched in November.



Can we prevent age-related hearing loss with medicine?

A research breakthrough in Japan has revealed the specific inner-ear cells that grow in number as we age or suffer damage from noise or ototoxic drugs. These Nox3-expressing cells cause damage to the surrounding cells in the cochlea in a cascade of events known as apoptosis. In their paper, published in *Journal of Neuroscience* on April 12, 2021, they describe experiments with genetically modified mice that show they were able to control the onset of age-related, noise-induced, and drug-induced hearing loss, as well as significantly suppress the onset of age-related and drug-induced hearing loss. This shows great potential for future drug and gene therapies for acquired hearing loss.

Tinnitus – it's in the genes?

Scientists from the University of Granada (UGR) in Spain have made a breakthrough discovery relating genes to tinnitus, specifically genes ANK2, TSC2 and AKAP9 in patients with Meniere's disease (MD). They have found these proteins can influence the connections between neurons relating to sound processing. This work opens the way to further research and the potential development of drug treatments.

(Amanat et al, 2021)



Good news story!



Anthony, a 4-year-old boy with hearing aids, has inspired Marvel Comics to create a new superhero with hearing loss. Anthony had complained to his mother that “superheroes don’t wear hearing aids” so she wrote to Marvel and asked if there were any superheroes with hearing loss. In the past, the superhero “Hawkeye” had hearing loss and wore a hearing aid..but that wasn’t good enough for Anthony.

So, Marvel went to the next step, creating “The Blue Ear,” a brand-new superhero who has hearing loss, and thanks to a new super hearing aid, can hear the sound of “danger” and those who cry for help.

Spotlight on research

In 2020, the report of the Lancet Commission was released focusing on dementia prevention, intervention, and care. Led by 28 world-leading dementia experts, it provides an up-to-date analysis of the best evidence on the prevention of dementia.

Findings: the report states that modifying 12 risk factors from childhood to later life could delay or prevent 40% of dementia cases. Untreated hearing loss in mid-life remains the largest modifiable risk factor and the use of hearing devices for hearing loss can prevent cognitive decline. Why? Untreated hearing loss places huge demands on our brain resources, which leads to cognitive fatigue. Wearing hearing devices means it is easier to hear and communicate, therefore freeing up resources and energy for other tasks, such as maintenance and repair of our brain cells.

How can we reduce our risk of dementia?

- Aim to maintain systolic blood pressure of 130 mm Hg or less in midlife from around age 40 years
- Encourage use of hearing aids for those with hearing loss and prevent hearing loss by protecting ears from high noise levels
- Reduce exposure to air pollution and second-hand tobacco smoke
- Prevent head injury (particularly by targeting high risk occupations and transport)
- Prevent alcohol misuse and limit drinking to less than 21 units per week
- Stop smoking uptake and support individuals to stop smoking (which the authors stress is beneficial at any age)
- Provide all children with primary and secondary education
- Lead an active life into mid, and possibly later life
- Reduce obesity and diabetes.

We continue our THANK YOU to our essential workers.

Everyone should be so proud of themselves for following the guidelines. Together, we have saved lives.

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