

Leading audiologist **Rob Shaddick** has diagnosed hearing loss in individuals from newborn babies to centenarians. He believes audiology services are wrongly centred on the diagnosis and treatment of hearing loss rather than prevention. To mark Deaf Awareness Week, he explains his reasoning

● **WRONG NOTE:** Beethoven was famously deaf in his later years but many modern musicians and DJs also have impaired hearing

# Protect your hearing or suffer a quiet life

**P**EOPLE today are more at risk from the dangers of loud music. In particular, the problem is something that many musicians, DJs and entertainment workers experience after continued exposure to loud noise over a long period. In response to these trends the RNID launched its Don't Lose the Music campaign ([www.dontlosethemusic.com](http://www.dontlosethemusic.com)) which is targeted at 18- to 30-year-olds. Research indicates that 73 per cent of young people who go to clubs or concerts regularly are risking permanent hearing damage. The campaign has secured the support of well-known musicians and celebrities such as Sir Paul McCartney, Moby and Jools Holland.

Noise-induced hearing loss (NIHL) is acquired by long-term exposure to high levels of noise, or sudden extreme noise and explosions. With an estimated two million people in the UK exposed to harmful noise levels at work, NIHL is one of the leading occupational hazards in industrialised countries. Individuals unfortunate enough to develop the condition are often unaware until it is too late. The gradual onset of structural damage to the inner hair cells of the cochlea combines with normal age-related hearing loss and a difficulty hearing in background noise and social situations occurs. Tinnitus, a high-pitched whistling or ringing in the ears, is also common.

In 2004, I set up Soundguard to provide in-the-ear custom-made hearing protection for industry as well as musicians, motorcyclists, clubbers, surfers and for shooting. The aim was to raise awareness and reduce the incidence of NIHL, especially in younger people.

Historically, NIHL has been associated with heavy industry. Terms such as "boilermaker's ear" and "blacksmith's deafness" are still used

to describe the detrimental effects of noise to the ear. With a decline in heavy industry in the UK it is surprising that incidents of NIHL have not reduced. However, they have been discovered in new, previously unexplored, areas of the workforce such as call centres and the entertainment industry. The condition is on the increase in younger people.

The problem is that people do not always associate a noise as being a noise. It is a subjective experience and what might be pleasant for you may be unbearable to somebody else. The sound of a motorcycle is thrilling to some and obnoxious to others, and a division of musical tastes occurs between generations.

Protecting your ears outside the workplace is as important. The wor-

the user's ear canal by taking an impression of the ear, which is a simple clinical procedure. The real benefit is the specialised internal acoustic filter that blocks damaging noise while maintaining the integrity and an awareness of the sound around you - a feature desired by musicians and clubbers who want to protect their hearing while minimising distortion.

The benefits extend to motorcyclists who can wear the devices comfortably beneath their helmet and still hear traffic noise, or the weekend clay pigeon shooter who wants to hear the trap opening.

Soundguard has also started to supply "surplugs" to help prevent surfers' ear, a common condition where the bony walls of the outer ear

taken noise protection further by working with industry to reduce employee noise exposure. The diversity of the work is really interesting. I have carried out noise assessments in small engineering works to international airports.

Soundguard recognised that health and safety managers are often busy in other roles as well as to the welfare of their workforce and aim to make the process simple by offering a package of care that fulfils HSE best practice for noise and vibration surveying, as well as optional noise awareness lectures for employees, hearing protection zoning and annual employee hearing tests. I believe that Soundguard is the only noise and vibration consultancy that offers a complete package of noise evaluation and employee noise assessment. A robust audiological background has enabled Soundguard to adapt and offer the additional services that many industries in the southwest desire.

The important thing to remember is that NIHL is not a new occupational threat. Beethoven went slowly deaf over a number of years. Although the cause of his deafness is still accepted as a mystery, the constant exposure to musical performance may have been a significant contributory factor. By the time he composed his ninth symphony he is reported to have been almost completely deaf, suffering tinnitus and living alone owing to an inability to socialise. His music can only be fully appreciated with normal hearing, something paradoxically that Beethoven lost before he was 50.

There are nine million people in the UK with hearing loss and deafness. Noise-induced hearing loss is preventable and shouldn't be part of this statistic. If you plan to undertake any occupation or hobby with a noise risk always ensure that you use adequate hearing protection.

**Noise-induced hearing loss is actually on the rise among younger people**

rying rise of NIHL in younger people may be attributed to exposure to potentially damaging noise levels in nightclubs, MP3 players or other hobbies such as motorcycling or playing in a band. These are all noises that can be perceived as being harmless and enjoyable. But if the ear remains unprotected they all have the potential to cause permanent hearing loss or tinnitus.

Soundguard has modernised the concept of hearing protection. There is a specific need to hear noise but at the same time prevent it; something that isn't fulfilled by older types of hearing protection, which can also be uncomfortable, unsightly and simply block all sounds entering the ear. Our minute silicone plugs are shaped and mimic

canal begin to swell and close, resulting in infection, discomfort and hearing loss. More recently, sleep plugs, initially designed for commuting, have become popular, particularly by those who have partners that snore.

April saw the enforcement of tighter EU Noise at Work regulations. Rising interest about hearing protection prompted me to retrain and become qualified in occupational noise and vibration assessment. Following investment in precision sound measuring equipment, Soundguard was launched as a workplace noise and vibration consultancy. It seemed the next logical step. Prior to this, I was only offering protection from the noise, but now Soundguard has developed and