

Noise-induced Hearing Loss

What is it?

Noise induced hearing loss (NIHL) is a hearing impairment resulting from prolonged exposure to loud noise. All of us are subjected to noise every day, such as, television or radio, household appliances and traffic, but most of these sounds are completely harmless. However, any exposure to loud noise, especially if it is prolonged, can result in a debilitating loss of hearing. Sudden exposure to a very loud sound, such as in an explosion, or repeated exposure to short loud bursts of sound, such as when hunting or shooting, can also cause NIHL. Common causes, which bring many people to see us at Correct Hearing, is the prolonged use of ear-buds for listening to music, exposure to loud noise at concerts and the non-use of ear protectors when working in a noisy environment. And NIHL is not just associated with rock music, but the high pitch sounds from violins and violas can cause NIHL, especially in the left ear.

NIHL can be immediate or it can take a long time for it to become noticeable. It can be temporary or permanent and can affect one or both ears. Generally people don't even know that they are damaging their hearing at the time and only begin to realise they have a problem when they can't understand what people are saying to them, especially in a noisy environment.

Tinnitus – ringing, buzzing or roaring in the ears or head, can also result from exposure to noise. This might

subside over time, but for many it is a condition they have to live with for the rest of their lives.

How does noise damage our hearing?

To understand this we need to know a bit about how the ear works. Basically, our ears pick up sound waves that they convert into electrical signals. These signals are communicated to the brain by the auditory nerve and the brain translates the signals into sounds that we recognise and understand. A key structure within the hearing system is the cochlea, and NIHL results from damage done to tiny hair-like projections in the cochlea (known as stereocilia). Stereocilia found at the front of the cochlea are associated with higher pitched sounds, and it is these that are generally damaged first (it's known as the 'doormat effect'). It's the higher pitched sounds that give intelligibility to speech, so when these are damaged, speech can sound mumbled. We also lose the ability to hear things like clocks ticking or birds singing. And once these delicate cells are damaged they cannot be repaired.

How can NIHL be prevented?

NIHL is the only type of hearing loss that is completely preventable.

- You wouldn't think twice about protecting your eyes from things that could blind you, so think about your hearing in the same way.

- Protect your ears when involved in loud activity or noisy environments.
- If you can't protect yourself from noise, move away from it. Never stand near loud speakers. If you can feel the effect of sound waves on your body when at a disco or concert: imagine what those waves are doing to your ears!
- Make noise a consideration when buying home appliances or machinery.
- Health and safety rules should always be applied for workers in noisy jobs.
- Educate your children and protect them when they are too young to think about it for themselves. Discourage the prolonged use of ear-buds or headphones. If you can hear what they are listening too, it's too loud.
- Anyone who plays in a band, goes clubbing or scrapes away on a stringed instrument should be wearing ear protection. There are a number of good custom made plugs available that are specifically designed for musicians.

If you have a NIHL and not yet done anything about it, or if you believe you might be at risk, come and see us at Correct Hearing, where one of our experienced audiologists will address any concerns you might have. ■

This is another area where the Correct Hearing Healthcare service goes beyond just the sale and fitting of hearing aids.

To make an appointment please phone **0115 961 8351** or email **info@correcthearing.co.uk**

Correct Hearing, 242 Oakdale Road, Carlton, Nottingham NG4 1AD

Also at, Unit 36, The George Centre, High Street, Grantham NG31 6LH Tel: **01476 249319**