Quick Guide
Noise Induced Hearing Loss

DILWORTH HEARING

WHAT IS NOISE INDUCED HEARING LOSS (NIHL)?

NIHL is the second most common sensorineural hearing deficit and occurs due to damage to the hair cells of the Cochlea caused by sustained and repeated exposure to excessive sound levels (Rabinowitz adapted from Maksimovich, 2000); Thorne et al., 2008).

Hearing loss caused by exposure to damaging noise levels is typically bilateral, tends to increase in severity with exposure level and duration and can result in a substantial hearing disability (Thorne et al., 2008).

Patients that may suffer from NIHL may present with difficulty understanding speech in both quiet environments and in the presence of background noise. Some patients may also report symptoms of tinnitus (either long-standing or recent onset following exposure to noise). If the individual has a history of either occupational noise exposure or recreational noise exposure (i.e. through use of power tools, etc) then they may have suffered NIHL.

WHAT DOES NIHL LOOK LIKE?

Noise induced hearing loss is typically defined as:

- Bilateral and symmetrical; however, asymmetric hearing loss may be possible (Le et al., 2017).
- Sensorineural.
- Greatest loss between 3kHz – 6kHz.

PREVALENCE OF NIHL

- Worldwide it is estimated that approximately 16% of all hearing loss cases are noise-induced.
- Some studies have indicated that between 30% and 50% of all adult hearing loss cases can be attributed to occupational noise exposure.
- Incidence is thought to be higher in males (Thorne et al., 2008).

WHO IS MOST AT RISK OF NIHL IN NZ?

- In NZ those most at risk for NIHL are those that have worked, or are currently working, in the following occupations: agriculture, construction, plant and machine operators, and other occupations involving heavy machinery. (Azizi, 2010; Thorne, Coad, Reddy, & Welch., 2013; Thorne et al., 2008).

WHAT TO DO IF YOU SUSPECT A PATIENT HAS A NIHL?

- Refer them to audiology services for a diagnostic hearing test. This test will include a full history of the patient's symptoms and a full audiogram (including pure tone audiometry, bone-conduction audiometry, speech discrimination testing, acoustic immittance testing).

MANAGEMENT OF SUSPECTED NIHL

- Any patient referred for audiological services with suspected NIHL will complete a full diagnostic hearing test in order to determine if they meet the current criteria outlined by ACC in order to make a claim for NIHL.
- At present any individual with a history of occupational noise-exposure that occurred mostly in New Zealand with a NAL percentage hearing loss of >6% is entitled to apply for ACC funding towards hearing devices.
- Should the patient meet the ACC criteria they will be referred to their GP for completion of an ACC45 form in order to initiate the claim.
- Following a decision from ACC, further consultation will be arranged to discuss their options regarding hearing devices.

References

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