

FORESTRY BULLETIN

Hearing Loss and You: Part 1

(Continued in Forestry Bulletin No. 110)

Contributed by Pamela Terry, Occupational Health Nurse, Rotorua. Thanks to Protector Safety Supply Ltd. for their assistance.

Loud and excessive noise is a common occurrence in forestry work. It arises from a variety of sources including the arborists chipper or grinder, mobile and stationary machinery in a host of operations, high revving light equipment such as chainsaws and brushcutters and aircraft operating in spraying and fire fighting. Most forestry people are exposed to some level of excessive noise.

How the ear works

The process of how the ear works is detailed in Fig. 1 below.

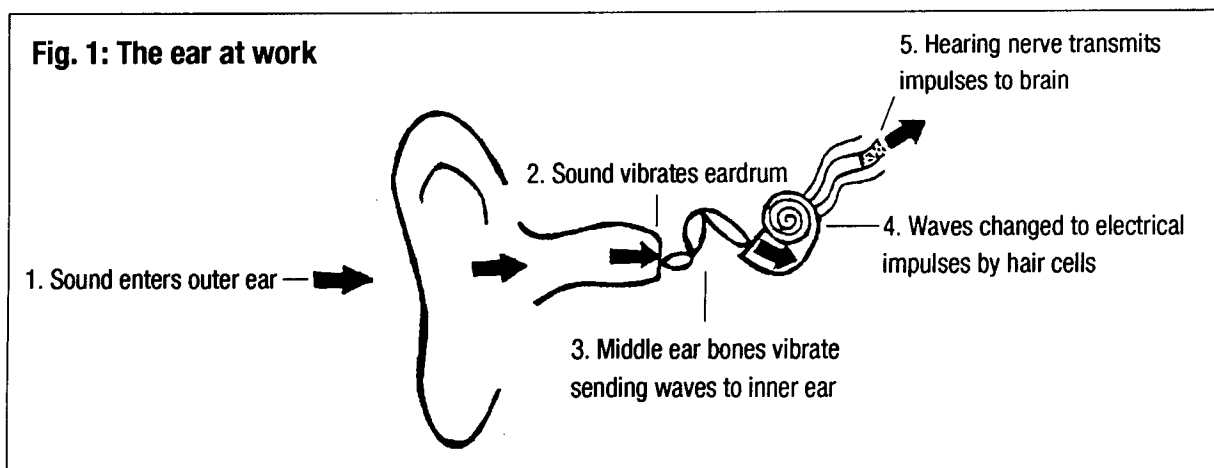
Loud and excessive noise can destroy the tiny hair cells in the inner ear causing hearing loss. The damage is normally gradual, painless and invisible but is permanent and very real.

The tiny hair cells are a bit like grass. If walked over once or twice, grass will stand up again and recover (temporary hearing loss). If grass is continually walked upon, it is destroyed all together (permanent hearing loss).

The effects of hearing loss

1. At work

- Workers suffering hearing loss due to excessive noise exposure have difficulty hearing properly in situations with background noise and can experience isolation both inside and outside the workplace.
- Errors can occur through misunderstanding instructions because the spoken message is distorted, not properly heard or not heard at all. "You hear part of a word and then you guess the rest—and you're not always right."



- Using an ordinary telephone is difficult.
- Safety is at risk if workers are unable to hear verbal instructions or a shouted warning or other warning sounds, such as bells or whistles. This may result in them being unaware of impending danger.
- Hearing loss can cause problems for many workers, making them reluctant to go to work.
- After working in a high noise area, muffled hearing is quite often an annoying consequence.

2. Socially

- A hearing-impaired person will often withdraw from social life. They cannot hear well or clearly in a group conversation and will find it difficult to follow and join in.
- If a person withdraws from their social life and doesn't want to go anywhere, this can make their family socially inactive too.
- "Because I cannot hear properly I often miss the point of jokes my mates tell but I usually manage a laugh at the right times."
- "Half the time, if two of them were talking at once, I didn't know where to look or where the sound was coming from."
- "When I cannot understand I just look at people—they get annoyed and turn away."

3. At home

- A hearing-impaired person can be a source of great stress on others in the family.
- Many people are intolerant and do not understand the difficulties faced by a hearing-impaired person.
- Having to continually raise their voices or yell in order that a deaf person gets the right facts is extremely wearing on speakers and this may cause some resentment in both parties.
- A wife says, "I want to sit and chat to my husband but when I am tired it is really

hard. I have to repeat everything all the time. Letters of words or words themselves, because of the pitch and volume, may not be heard at all".

- Besides missing out on conversations with adults, a parent states; "My little four-year-old wants to talk to me. He tries over and over again but I cannot lip read and find it difficult to understand."
- Children think; "My father can't hear properly. I have to talk really slowly and even then he doesn't always understand".
- Hearing loss will reduce the pleasure of music, TV, movies and the sounds of nature.

4. Psychological effects

- Most people have difficulty in accepting a hearing loss. They do not realize that it will affect their whole life and that hair cell loss is permanent.
- Most people do not like wearing hearing aids.
- People can become irritable, short tempered and in some cases violent. They may think the whole world is against them.
- A hearing-impaired person can suffer from loneliness, isolation from family and workmates, depression and poor self image and worth.

5. Another complication

It is quite common for a person with a noise-induced hearing loss to suffer from tinnitus. Tinnitus is a ringing or humming sound in the ears. It is the sensation of sound when none is present and may be heard in one ear, both ears or "inside the head". It can be quite disconcerting, making it difficult to concentrate. There are methods of treatment but no magic cure.

Forestry Bulletin No. 110 is entitled *Hearing Loss and You: Part 2* and should be read in conjunction with this bulletin. It describes ways of preventing noise-induced hearing loss, specifically in forestry occupations.