

Tinnitus: A hearing disorder often triggered by exposure to noise

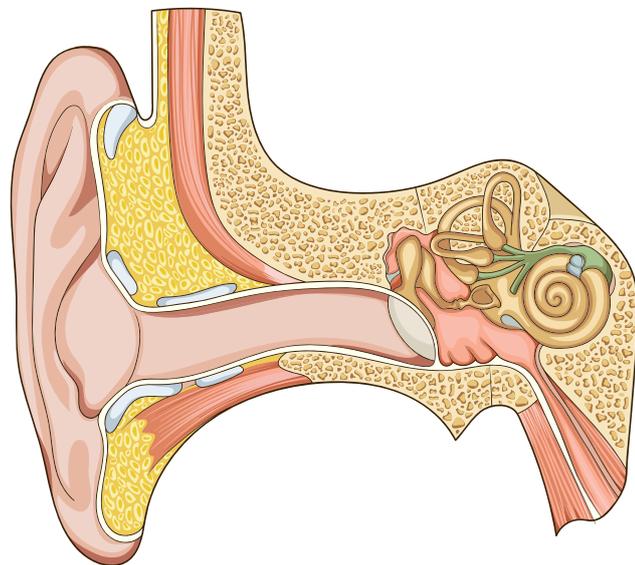
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Tinnitus facts and figures

- Tinnitus comes from the Latin word 'ringing'
- Around 1 in 3 people will experience tinnitus at some point in their lives
- About 1 in 10 will suffer persistent tinnitus
- Some 17,000 people in the UK suffer deafness, ringing in the ears or other ear conditions caused by excessive noise at work.
- Approximately 1 million employees in the UK are currently at risk of developing industrial deafness (including tinnitus)
- Studies prove that toxic chemicals found in cigarette smoke have links with chronic ear infections and tinnitus.
- 60% of US armed forces personnel returning from Iraq and Afghanistan suffer from tinnitus

What is tinnitus

Tinnitus is the term for a condition which causes the sufferer to hear sounds which have no external source. Although sometimes referred to as 'ringing in the ears', the noises heard can be very varied, from constant buzzes and whistling to sounds like music or singing. When the noises are heard in time with the hearer's pulse the condition is known as pulsatile tinnitus.



Causes of tinnitus

Tinnitus is not an illness or disease, and the exact mechanism by which it occurs is not entirely understood. However, it is believed to be related to how the ear hears sounds and how the brain interprets them. Normally, we hear far more than we are conscious of, but the brain filters out much of the noise allowing us to hear clearly.

The most common cause of tinnitus is damage to the inner ear, which contains the cochlea and auditory nerve. The cochlea is a coiled, spiral tube. If part of the cochlea is damaged, that part will stop sending information to the brain. To compensate, the brain then seeks information – sounds – from the parts of the cochlea that still work. It is this information, usually filtered out, that is believed to be behind the sounds heard by someone suffering with tinnitus.

Specific regulations relating to the construction industry

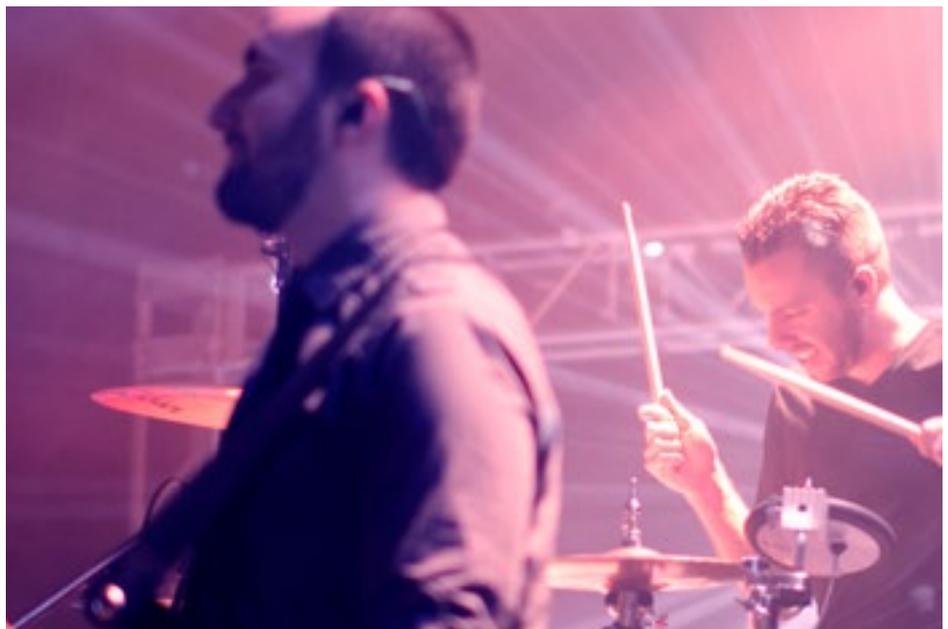
The regulations protecting all workers against the effects of noise are the Control of Noise at Work Regulations 2005. For construction work specifically, the Regulations state that:

- Employers must identify hearing protection zones
- The use of hearing protection is compulsory in these zones
- The zones must be marked with warning signs
- Hearing protectors must be regularly inspected and maintained
- All workers must be fully trained in the use and care of hearing protectors

The impact of tinnitus

Tinnitus is very common and can be experienced at any age. People who have hearing loss or other ear problems are particular sufferers, but it is also experienced by people with normal hearing. While many people do not find it especially bothersome, for some it will be a near constant annoyance and a few will find it excruciating; at the inquest into the death of a rock-band drummer early in 2017, his widow said his suicide followed 20 years of 'unbearable' tinnitus, which had led to sleep deprivation and anxiety.

Although playing in a rock band is a risk relatively few are likely to encounter, many workers in the construction industry are surrounded by loud, persistent noise and also liable to suffer from tinnitus.



Further information

British Tinnitus Association

www.tinnitus.org.uk

Health & Safety Executive

(legal responsibilities of employers as regards noise)

<http://www.hse.gov.uk/noise/employers.htm>

How can RVT help?

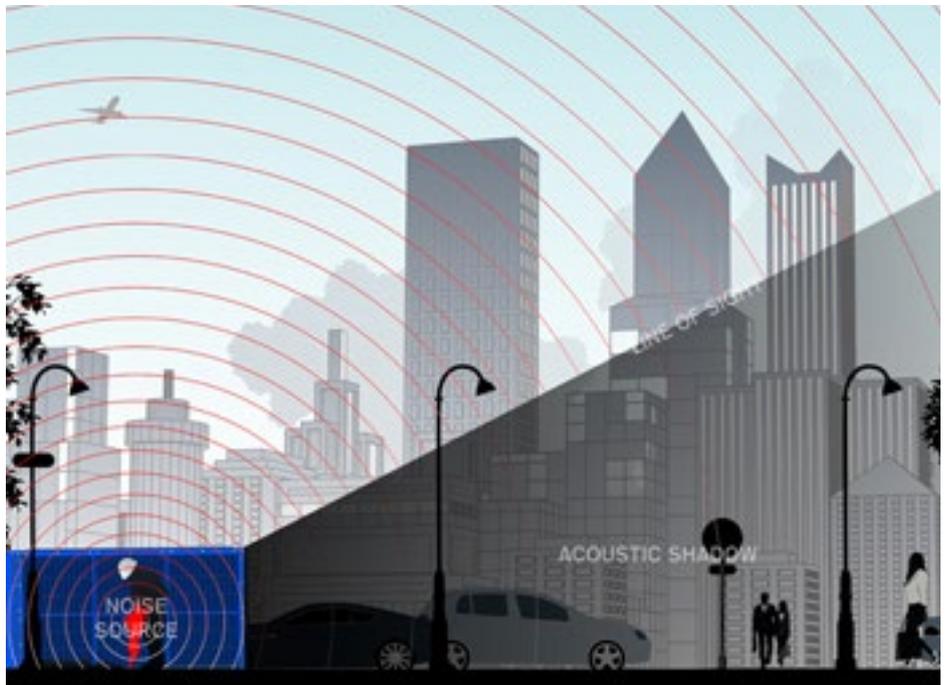
- Accurate measurement of noise levels
- Solutions appropriate to the specific noise problem
- Equipment to create acoustic barriers containing noise close to its source

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What is the treatment for tinnitus?

Where tinnitus is caused by an underlying health condition, such as earwax, treating the condition can help stop or reduce the sounds heard. In the majority of cases, though, tinnitus is much harder to overcome and treatments are often concerned with helping the sufferer to cope with the condition rather than curing it.

Although often caused by exposure to persistent loud noise, tinnitus is often most noticeable in quiet environments. Where this is the case, introducing neutral sounds to drown out the tinnitus can be helpful. This may be achieved by simple measures, such as opening a window or having a radio or television on, but there are also specific sound-generators designed to help tinnitus sufferers, including in-ear versions, and even pillows with built-in speakers (persistent tinnitus can lead to serious lack of sleep problems).



For severe cases, tinnitus retraining therapy (TRT), which combines intensive sound therapy and long-term counselling, may be recommended. Although widely available privately, it is generally available on the NHS only for people with very severe or persistent tinnitus.

As with many conditions, tinnitus is easier to prevent than cure. In the workplace, this means protecting workers from loud and persistent noise. While those handling noisy equipment can – and, by law, must – be protected by ear defenders, other workers in the proximity also need to be protected from the effects of excessive noise. Acoustic barriers, strategically placed to isolate the sources of noise, provide an effective means of preventing tinnitus and other hearing problems for site workers.