

What's the risk of dentists losing their hearing?

Hearing loss and its association with occupational noise exposure among Saudi dentists: a cross-sectional study
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The dental clinic can be a stressful environment for a multitude of factors: patients may arrive late leading to delays, dealing with complaints, equipment may not be working, not to mention having to constantly be aware of occupational hazards such as needle stick injuries which can lead to serious complications. But there is one additional element that is often not taken into account by dentists and that is the possibility of hearing loss as a result of the constant exposure to high frequency sounds, from high speed turbines, ultrasonic scalers to other sources like high velocity suction.

In this study Alabdulwahhab *et al.* aimed to determine whether the persistent high frequency sounds produced by the dental equipment could cause hearing decrement among Saudi dental practitioners.

The authors carried out a cross sectional study of 38 randomly selected Saudi dentists who had been practising dentistry for more than 5 years from various specialities and 38 individuals as a control group. The participants were subjected to four audiometric tests which included: an otoscopic examination, tympanometry (an examination used to test the condition of the middle ear and mobility of the eardrum and the conduction bones), pure tone audiometry and the distortion product otoacoustic

emissions (DPOAE) test (to determine cochlear status, specifically hair cell function).

Their results revealed that 15.8% of the dentists and 2.6% of the control group had some hearing loss. No significant difference was found between the two groups in the pure tone audiometry test; however, qualitative analysis revealed a higher percentage of hearing loss among the dentists' group as compared with their control counterparts.

Evidence suggests that noise from dental clinics can cause hearing problems, which had a greater effect on the left ear than the right; however, these problems are not severe in nature.

To decrease the risk of developing noise induced hearing loss dentists are encouraged to implement preventive measures for noise reduction in areas such as: optimum maintenance of rotary equipment, reduction of the ambient noise level in the clinic and personal protection through the use of ear plugs.

Dentists are also advised to undertake regular annual audiometry check-ups which can help to identify those who are showing the preliminary signs of hearing loss before they develop significant auditory impairments.

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