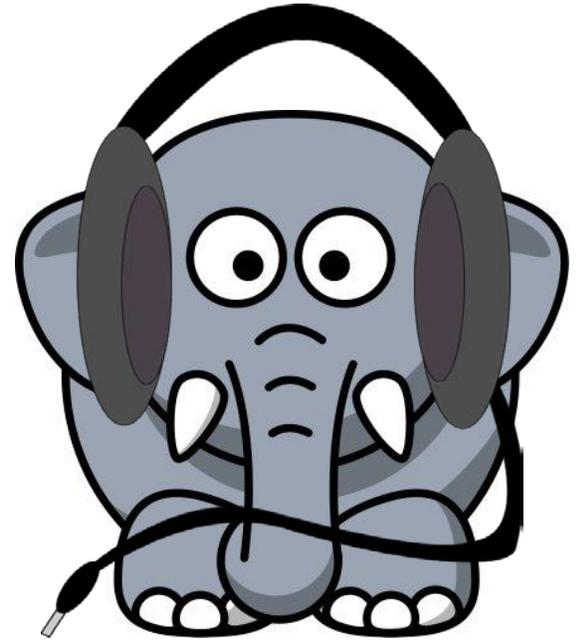


Hearing Loss from Office Work: Is that Possible?

THERE is significant scientific evidence that exposure to sound below an intensity of 77 to 80 dBA will not cause any hearing loss, tinnitus or other sound related disease. In 2015, the average office both open and private has sound levels between 45 and 60 dBA. However, that does not mean that there are not sound issues in the office.

Noise is defined as any unwanted sound. Music, voice conversation, iPhone use, email alarms, keyboard keying, printer operation are all sounds that some would define as noise. Even the ventilation system with fans and air vibration can also be a source of unwanted sound.

To reduce this noise, some office workers use personal listening devices such as headphones or ear buds attached to iPhones, pads or laptops to overcome background noise levels and, ineffectively, block out office sounds. In June 2015, a study of 180 college students found that 25% of the students set the sound level in their ear at 80dBA and 94% were unaware that sound levels of this intensity could result in hearing diseases. (Marron,K.et al.Int.J.Audiology)



Intensity is only one of three properties of sound that cause sound discomfort: frequency or pitch and rate of repetition or impact are the other two. All three characteristics have to be considered when evaluating the noise problem.

Not all office tasks are equally affected by sound or noise. Reading comprehension and memory tasks are more affected.

There are private offices, cubicle offices, and shared open offices. Noise and sound can be managed to achieve sound conditions that are acceptable to most workers. However, there needs to be visually and aurally isolated spaces where workers can have privacy to meet, read or think with a lower noise level, typical of a library reading room.

Attempting to block sound with music or white noise through a public address system is likely to add to the overall sound intensity and create more annoyance while employees try to overcome the added interfering noise.

Offices rarely, if ever, have noise that is hazardous but it can cause discomfort and adversely impact job performance. Blocking out noise with headphones may actually be hazardous and could prevent attention to voices and alarms essential for communication among others in the office.

Tufts EHS can assist in evaluating the office sound and make suggestions for identifying sources and controls.

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