Hearing Safety

- What causes noise-induced hearing loss (NIHL)?
  - "Noise exposure, whether occupational or recreational, is the leading preventable cause of hearing loss."-- Peter M. Rabinowitz, M.D., M.P.H., Yale University School of Medicine, New Haven, Connecticut. "Noise Induced Hearing Loss." American Family Physician. May 1, 2000.
- How many people are affected?
  - "As many as 10 million have hearing loss caused in part by excessive noise exposure in the workplace or during recreational activities." -- Brookhouser PE. Prevention of Noise-Induced Hearing Loss. Prev Med 1994;23:665-9.

Source: http://www.shure.com/Corporate/CorporateCause/HearingFAQ/index.htm

Hearing Safety

- "More than 28 million Americans have a hearing loss; 80% of those affected have hearing damage that is irreversible and permanent." -- HEAR and House Ear Institute.

- "More than 30 million Americans are exposed to hazardous sound levels on a regular basis. Individuals of all ages including children, adolescents, young adults and older people can develop NIHL -- National Institute of Deafness and other Communicative Disorders (NIDCD).

Source: http://www.shure.com/Corporate/CorporateCause/HearingFAQ/index.htm

How do I know if I'm affected?

- Difficulty understanding certain words or parts of words
- Frequently asking others to repeat themselves
- Difficulty understanding others on the telephone
- Turning up the sound on the television or radio to a level that is too loud for others in the room
- Difficulty hearing in noisy surroundings
- Perceiving sounds as muffled

Source: http://www.shure.com/Corporate/CorporateCause/HearingFAQ/index.htm

Technically, what can happen?

- The effect from impulse sound can be instantaneous and can result in an immediate hearing loss that may be permanent.

- The structures of the inner ear may be severely damaged. This kind of hearing loss may be accompanied by tinnitus, an experience of sound like ringing, buzzing or roaring in the ears or head, which may subside over time.

Source: http://www.shure.com/Corporate/CorporateCause/HearingFAQ/index.htm

Technically, what can happen?

- The damage that occurs slowly over years of continuous exposure to loud noise is accompanied by various changes in the structure of the hair cells. It also results in hearing loss and tinnitus. Exposure to impulse and continuous noise may cause only a temporary hearing loss. If the hearing recovers, the temporary hearing loss is called a temporary threshold shift. The temporary threshold shift largely disappears within 16 hours after exposure to loud noise.

- Both forms of NIHL can be prevented by the regular use of hearing protectors such as earplugs or personal monitors.

Source: http://www.shure.com/Corporate/CorporateCause/HearingFAQ/index.htm

How much loss are we talking about?

- Normal range or no impairment = -10dB to 15dB
- Slight Loss/Minimal loss = 16dB to 25dB
- Mild loss = 26dB to 30dB
- Moderate loss = 31dB to 50dB
- Moderate/Severe loss = 51dB to 70dB
- Severe loss = 71dB to 90dB
- Profound loss = 91dB or more

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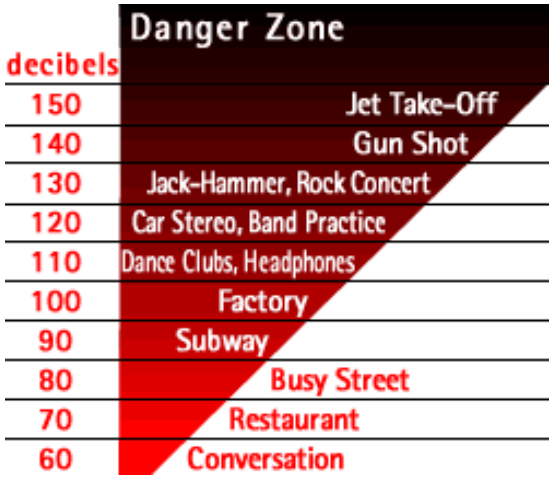
How much exposure can I handle?

Sound Pressure Level	Exposure time
90 dB SPL	8 hours
95 dB SPL	4 hours
100 dB SPL	2 hours
105 dB SPL	1 hour
110 dB SPL	30 minute
115 dB SPL	15 minutes



Source: http://www.shure.com/Corporate/CorporateCause/HearingFAQ/index.htm

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What can I do to save my hearing?

- "Hearing loss caused by exposure to recreational and occupational noise results in devastating disability that is virtually 100 percent preventable."

  -- American Family Physician 2000; 61:2749-56, 2759-60.

  - Limit the amount of time you spend in loud environments
  - Wear earplugs or other hearing protective devices when involved in a loud activity
  - Be alert to noise levels in your environment

Source: http://www.shure.com/Corporate/CorporateCause/HearingFAQ/index.htm

What can I do to save my hearing?

- Protect children who are too young to protect themselves
- Have a medical examination by an otolaryngologist, a physician who specializes in diseases of the ears, nose, throat, head and neck
- Have a hearing test by an audiologist, a health professional trained to identify and measure hearing loss and to rehabilitate persons with hearing impairments
- Buy a sound pressure level meter, and measure SPL in your environment(s) against the OSHA guidelines as to the recommended time spent at different sound pressure levels

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