



Noise Induced Hearing Loss

Noise-induced hearing damage is the most common type of acquired hearing impairment other than presbycusis (“aged hearing”). Except for accidental acoustic trauma, noise damage is preventable. The National Institute for Occupational Safety and Health (NIOSH) has designated noise-induced hearing loss as one of the ten leading occupational diseases and injuries. In addition, nonoccupational noise exposure affects the hearing of children, youth and adults.

Types of Noise Induced Hearing Loss (NIHL). The technical term for NIHL is noise-induced permanent threshold shift (NIPTS). NIHL is cumulative and progressive. There are two types of NIPTS: acoustic trauma and gradually developing noise-induced hearing loss:

Acoustic trauma refers to permanent damage resulting from a single exposure to very high sound pressure levels such as a gunshot, explosion or firecracker. However, acoustic trauma can also result from short exposures to continuous noise at very high sound pressure levels (e.g. jackhammer). In contrast, **NIHL** develops gradually over months and years of repeated exposure to sound levels lower than those producing acoustic trauma. The combination of sound level and duration of exposure is noise exposure. As the sound level increases, the amount of time needed for hazardous exposure decreases.

What can you do to reduce the risk of noise exposure? Hearing protection devices, when worn correctly, can reduce the dose of noise exposure to acceptable levels. We can make you custom hearing protection here at Mid-Hudson Medical Group.

Decibel Ratings and Hazardous Time Exposures of Common Noises

	<i>Typical Decibel</i>	<i>Sound Example</i>
FAINT	20	Leaves Rustling
SOFT	30	Whisper
	40	Quiet Library
MODERATE	50	Moderate rainfall
	60	Normal conversation; dishwashers
LOUD	70	Traffic; vacuums
	80	Alarm clocks
<i>Over 85dB for extended periods can cause permanent hearing loss.</i>		
VERY LOUD	90	Lawnmowers; power tools; blenders; hair dryers
	100	Snowmobiles; IPODs/MP3 players at full volume
	110	Concerts (any genre of music), car horns, sporting events.
<i>Dangerous over 30 minutes of exposure.</i>		
UNCOMFORTABLE	120	Jet planes (during take off)
<i>Dangerous over 30 seconds of exposure.</i>		
USE HEARING	130	Jackhammers; ambulances
PROTECTION OR AVOID	140	Fireworks, gun shots, custom car stereos (at full volume)
<i>Painful and Dangerous</i>		