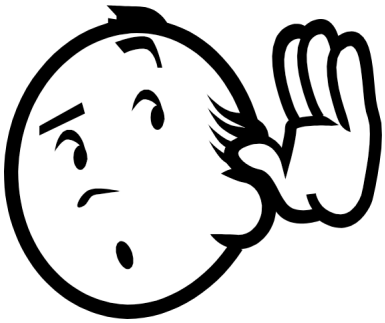

# Protect Your Ears!

## Noise-Induced Hearing Loss

- **Do you love a loud concert?**
- **Is turning the volume up loud your favorite way to listen to music?**
- **Do you frequently listen to your headphones so that you can't hear others around you?**

If you answered YES to any of those questions, you may be putting yourself at risk for noise-induced hearing loss (NIHL). Read on to find out more information on what NIHL is and now you can prevent it!

### Why Does My Hearing Matter?

Hearing is a key component to communication. It is critical to protect your hearing because the ability to hear is directly related to the development of speech, language, and learning. Any damage to the hearing mechanism can have negative effects on speech, language, comprehension, classroom learning, and social skills.

### Intense Noise Damages the Hair Cells of the Inner Ear

The inner portion of the ear is made up of hair cells which, when damaged by loud sounds, do not regenerate. The hair cells cannot be medically or surgically repaired. Noise induced hearing loss is permanent. Here's a silly analogy to help you understand just what loud noise does to the delicate hair cells in the inner ear. Think about grass. What happens to the blades of grass after being sat on over a long period of time? They become flattened and very slowly stand back up. Over time, if you sit in that same spot, those blades of grass will not stand back up at all. That is what loud noise does to the hair cells in the inner ear. The loud noise "flattens" or damages the hairs cells and they can no longer function. The repeated or extreme noise incident damages the hair cells so that they are unable to return to their original state. This is happening to many people including children who may not understand the dangers of repeated exposure to dangerously loud sounds. Noise is everywhere! Be aware of the dangers that noise can cause to your hearing and take steps to prevent any damage.

## Here is a Table Showing the Intensity of Some Common Sounds.

| Approximate Decibel Level | Examples |
|---|---|
| 0 dB | The quietest sound you can hear |
| 30 dB | Whisper, quiet library |
| 60 dB | Normal conversation, sewing machine, typewriter |
| 90 dB | Lawnmower, shop tools, truck traffic; 8 hours per day in the maximum exposure (protects 90% of people). |
| 100 dB | Chainsaw, pneumatic drill, snowmobile; 2 hours per day is the maximum exposure without protection |
| 115 dB | Sandblasting, loud rock concert, auto horn; 15 minutes per day is the maximum exposure without protection. |
| 140 dB | Gun muzzle blast, jet engine, noise causes pain even brief exposure injures unprotected ears; maximum allowed noise with hearing protector |

## Non-Occupational Noise

Non-occupational noises are also regularly encountered during recreational activities and are a source of premature hearing reduction. Peak noise levels, in dB, are provided in the following table taken from Smith et al, 1999).

| NOISE | LEVEL |
|---|---|
| Firecracker | 180 |
| Gunshot | 167 |
| Car Stereo | 154 |
| Children's toys | 150 |
| Sporting events | 127 |
| Rock Concert | 120 |
| Health Club | 120 |
| Motorboats | 115 |

| | |
|---|---|
| Video Arcade | 110 |
| Snowmobile | 99 |
| Movie | 94 |

## Preventing Noise-Induced Hearing Loss

Hearing loss caused by exposure to loud sound is preventable. To reduce their risk of noise-induced hearing loss, adults and children can do the following:

- Understand that noise-induced hearing loss can lead to communication difficulties, learning difficulties, pain or ringing in the ears (tinnitus), distorted or muffled hearing, and an inability to hear some environmental sounds and warning signals
- Identify sources of loud sounds (such as gas-powered lawnmowers, snowmobiles, power tools, gunfire, or music) that can contribute to hearing loss and try to reduce exposure
- Adopt behaviors to protect their hearing:
    - Avoid or limit exposure to excessively loud sounds
    - Turn down the volume of music systems
    - Move away from the source of loud sounds when possible
    - Use hearing protection devices when it is not feasible to avoid exposure to loud sounds or reduce them to a safe level[5]
- Seek hearing evaluation by a licensed audiologist or other qualified professional, especially if there is concern about potential hearing loss

Information taken from:
www.cdc.com
American hearing Research Foundation http://www.american-hearing.org/disorders/noise-induced-hearing-loss/