

## WORK-RELATED HEARING LOSS

YOU HAVE BEEN GIVEN THIS BROCHURE BECAUSE YOUR HEALTH PRACTITIONER SUSPECTS THAT NOISE AT WORK HAS SIGNIFICANTLY CONTRIBUTED TO A LOSS IN YOUR HEARING.



### QUESTIONS AND ANSWERS

#### Q. How Does Noise Cause Hearing Loss?

A. Your ear receives sound waves and sends them through a delicately balanced system to the brain. Part of this remarkable system is a chamber in the inner ear filled with fluid and lined with thousands of tiny hair cells. The hair cells signal the auditory nerve to send electrical impulses to the brain. The brain interprets these impulses as sound. When you are exposed to loud or prolonged noise, the hair cells are damaged and the transmission of sound is permanently altered.

#### Exposure can be from:

- A one-time exposure to extremely loud noise.
- Repeated or long exposure to loud noise.
- Extended exposure to moderate noise.

#### Q. What Sounds Cause Hearing Loss?

A.

- The loudness of sound is measured in units called decibels. Hearing loss occurs with exposures of 85 decibels or greater.
- Employers are required to provide a hearing conservation program if average sound levels are 85 decibels or greater during a typical work day. A hearing conservation program consists of measuring noise levels, training people about noise and hearing protection, providing hearing protection and hearing testing, and trying to make engineering changes to reduce noise.



#### Q. What Should I Do About My Hearing Loss?

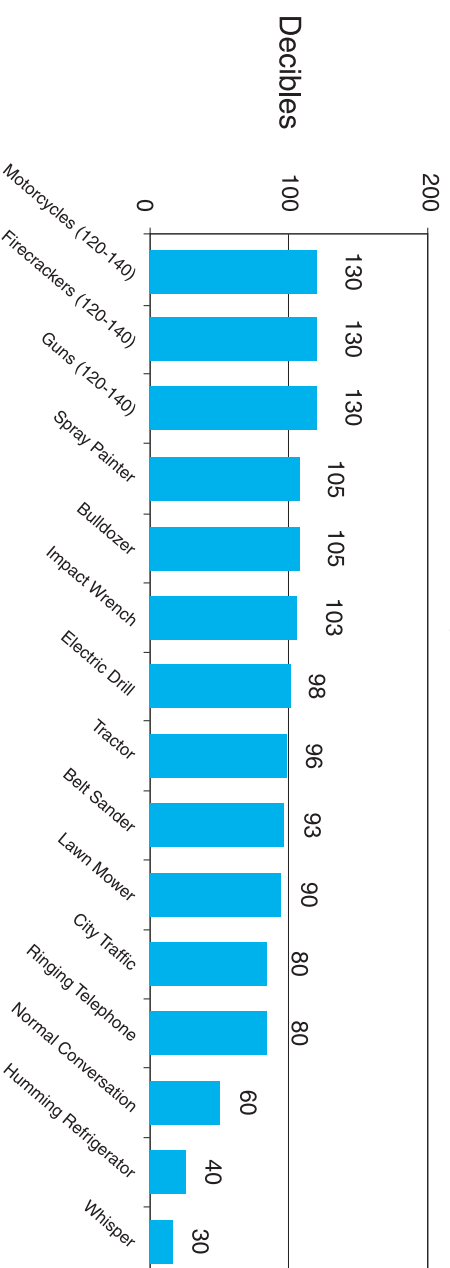
A.

- It is never too late to protect your hearing even if you already have hearing loss. You want to protect what hearing you still have by using protection when around excessive noise.
- If you continue to be exposed to excessive noise at work or at home, you should protect your ears with either ear plugs or ear muffs.
- If the noise around you is loud enough that you have to shout to have a conversation with someone standing next to you, then you are being exposed to excessive noise which is causing damage to your ears.

- If your employer does not provide hearing protection devices or for your personal use around the house, they can be purchased at drug, hardware, or sporting good stores. The National Institute for Occupational Safety and Health has a web site to help select the proper hearing protection.

[www.cdc.gov/niosh/topics/noise/hpcomp.html](http://www.cdc.gov/niosh/topics/noise/hpcomp.html)

#### Source of Noise



It is important to note the amount of protection listed on the hearing protector package is under ideal situations and is not achievable with normal use in your home or in your workplace.

Therefore, the main consideration is to find a hearing protector that is comfortable to wear and convenient to use. It may take some trial and error to find a protector that meets your needs. There are over 200 styles available. So, find a protector you like and wear it every time you are in hazardous noise.

✓ Monitor your hearing loss with an annual hearing test.

✓ Ask your health care provider if a hearing aid or other treatment would help your hearing.

Michigan State University has been asked by the Michigan OSHA (MIOSHA) program to keep track of how many people in Michigan are getting hearing loss from noise at work. This information is used by the MIOSHA program as part of their strategic plan to reduce excessive noise levels and prevent hearing loss among Michigan workers.

For more information, contact:

**Occupational and Environmental Medicine**  
**MICHIGAN STATE UNIVERSITY**  
117 West Fee Hall • East Lansing, MI 48824  
1-(800) 446-7805 • [www.oem.msu.edu](http://www.oem.msu.edu)



**MICHIGAN STATE**  
**UNIVERSITY**



MICHIGAN STATE UNIVERSITY  
COLLEGE OF HUMAN MEDICINE  
DEPARTMENT OF MEDICINE  
117 West Fee Hall East Lansing, MI 48824

