

# HOW NOISE CAN DAMAGE OUR HEARING

# Leader's Guide, Fact Sheet & Quiz

Item Number: 5272 © 2021 AP Safety Training

#### This easy-to-use Leader's Guide is provided to assist in conducting a successful presentation.

#### PREPARING FOR THE MEETING

Here are a few suggestions for using this program:

- a) Review the contents of the Fact Sheet that immediately follows this page to familiarize yourself with the program topic and the training points discussed in the program. The Fact Sheet also includes a list of Program Objectives that details the information that participants should learn from watching the program.
- b) If required by your organization, make an attendance record to be signed by each participant to document the training to be conducted.
- c) Prepare the area and equipment to be used for the training. Make sure the watching environment is comfortable and free from outside distractions. Also, ensure that participants can see and hear the TV screen or computer monitor without obstructions.
- d) Make copies of the Review Quiz included at the end of this Leader's Guide to be completed by participants at the conclusion of the presentation. Be aware that the page containing the answers to the quiz comes <u>before</u> the quiz itself, which is on the final page.

#### CONDUCTING THE PRESENTATION

- a) Begin the meeting by welcoming the participants. Introduce yourself and give each person an opportunity to become acquainted if there are new people joining the training session.
- b) Introduce the program by its title and explain to participants what they are expected to learn as stated in the Program Objectives of the Fact Sheet.
- c) Play the program without interruption. Upon completion, lead discussions about your organization's specific policies regarding the subject matter. Make sure to note any unique hazards associated with the program's topic that participants may encounter while performing their job duties at your facility.
- d) Hand out copies of the review quiz to all of the participants and make sure each one completes it before concluding the training session.

### 5272 HOW NOISE CAN DAMAGE OUR HEARING FACT SHEET

LENGTH: 2:09 MINUTES

#### **PROGRAM SYNOPSIS:**

For many of us, our lives revolve around the sounds we hear. Sounds travel in waves and go through our ear canal, into the inner ear, then to eardrum and voila – we hear noises. When noise levels are excessive, the delicate components of the inner ear can be damaged by the amplitude of the sound waves and vibrations that flow through it. Some symptoms of hearing loss include finding it hard to understand what others are saying in a group setting or when background noise is present and having trouble hearing voices in the higher frequency ranges.

#### **PROGRAM OBJECTIVES:**

After watching the program, the participant should be able to explain the following:

- How vibrations from noises send sound to our ears;
- How noise levels can damage our cilia;
- Some of the symptoms of hearing loss;
- What to do when/if you suspect hearing loss.

#### INSTRUCTIONAL CONTENT:

#### HOW NOISE CAN DAMAGE OUR HEARING

- For many of us, our lives revolve around the sounds we hear. These sounds travel in waves and are channeled through our ear canal and into the inner ear where they strike the eardrum.
- The eardrum vibrates against three delicate bones which carry these sound vibrations to a fluid-filled structure called the cochlea. These vibrations cause waves within the cochlea's fluid to flow over tiny "hair-like" nerve endings called cilia.
- This movement of the cilia sends electrical pulses to the brain through the auditory nerve. Our brain then interprets these signals into the sounds we hear.
- When noise levels are excessive, the delicate components of the inner ear can be damaged by the amplitude of the sound waves and vibrations that flow through it.
- Specifically, the tiny "hair-like" cilia can be damaged or destroyed, preventing the efficient transmission of electrical signals to the brain, leading to permanent hearing loss.
- Some symptoms of hearing loss include finding it hard to understand what others are saying in a group setting or when background noise is present, having trouble hearing voices in the higher frequency ranges, such as those of women and children and increasing the volume of the television to a level uncomfortable for others.
- People suffering from hearing loss often feel isolated and struggle to participate in conversations. They may become withdrawn or depressed.
- Hearing loss caused by noise exposure is not curable and can have a negative impact of the quality of life.
- If you suspect that you may have hearing loss, talk to your supervisor about your concerns and redouble your hearing conservation efforts to prevent further damage.

#### HOW NOISE CAN DAMAGE OUR HEARING

## ANSWERS TO THE REVIEW QUIZ

- 1. b
- 2. a
- 3. b

#### HOW NOISE CAN DAMAGE OUR HEARING **REVIEW QUIZ**

Name\_\_\_\_\_Date\_\_\_\_\_Date\_\_\_\_\_

The following questions are provided to determine how well you understand the information presented in this program.

- 1. \_\_\_\_\_\_ are tiny hair-like nerve endings whose movement sends electrical pulses to the brain.
- a. Cochlea
- b. Cilia
- c. Follicles

2. The delicate components of the inner ear can be damaged by the amplitude of the sound waves and vibrations that flow through it.

- a. True
- b. False
- 3. Hearing loss caused by noise exposure is easily curable and has minimal impact of the quality of life.
- a. True
- b. False