

# Fact Sheet

A: Wave



# HOW CAN LOUD NOISES HARM YOUR HEARING?

**W**ould you agree that it's a noisy planet? Every day, you hear sounds at school, home, concerts, and sporting events. Sometimes, these sounds are at a level that won't damage your hearing. But sounds can be harmful when they are too loud, even for a short time, or when they are both loud and long lasting. These sounds can damage your hearing cells and cause noise-induced hearing loss.

How does noise-induced hearing loss happen? Your hearing cells are damaged every time you are in a loud place or too close to loud noises. It doesn't matter if the noise lasts for just a little bit of time; any amount of time spent around noises that are too loud can cause damage. The damage to hearing cells builds over time and is permanent.

Even if you can't tell that you're damaging your hearing right away, you could have trouble hearing in the future, because noise-induced hearing loss can build over time. But here's the good news: noise-induced hearing loss is the only type of hearing loss that is completely preventable. How can you protect your ears? First, know which sounds around you can harm your hearing.

## What sounds may be harmful?

Sound is measured in decibels (dB), and any sound at or above 85 decibels can damage your hearing. You may be surprised at some of the sounds that are in this danger zone.

- **Music from your headphones or earbuds.** Up to 105 decibels! Personal electronic devices turned up all the way can reach levels that damage your ears. Lower the volume.
- **The lawnmower.** 90 decibels! Be sure to use sound-blocking earmuffs. You can still do your chores, make your parents happy, and protect your hearing!
- **A music concert.** Up to 110 decibels! To protect your hearing but still enjoy the concert, bring earplugs. You'll still hear the music, and you'll have a better time without worrying about ringing in your ears after the concert.
- **Sporting events.** 95 to 140 decibels! Loud crowds at football games, noise at auto races, and other loud events may damage your hearing. Take along your earplugs.

## How can I protect my hearing?

The more time you spend in a noisy place, and the closer you are to the loud sounds, the more you risk permanent hearing damage. With three simple actions, you can protect your hearing:

- **Lower the volume.** Turn down the sound on electronic devices.
- **Move away from the noise.** Simply walk away, if that is possible.
- **Wear hearing protectors.** Use earplugs or earmuffs if you can't leave a noisy place.

Remember, noise-induced hearing loss is the only form of hearing loss that is completely preventable. If you develop healthy habits now, you can help protect your amazing sense of hearing. **Check out more tips and activities at [www.noisyplanet.nidcd.nih.gov](http://www.noisyplanet.nidcd.nih.gov).**



## Noisy Crossword Puzzle

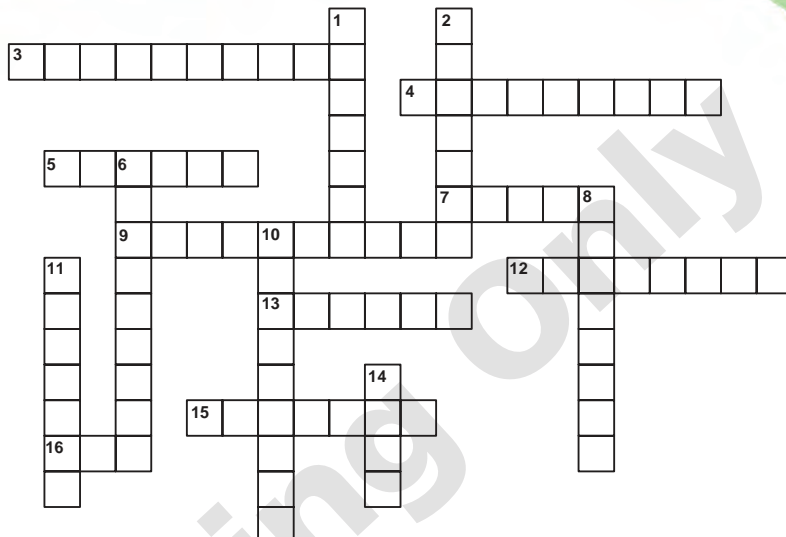
This crossword puzzle is all about noise. At the end of some of the clues is the decibel level—or loudness—of a particular noise.

### Across

3. A yard tool used to clean up fallen leaves is a \_\_\_\_\_. (105 decibels)
4. A machine used to blow your hair dry is a \_\_\_\_\_. (80–90 decibels)
5. The button or knob used to keep sound at a safe level is the \_\_\_\_\_ control.
7. Hearing loss caused by sounds that are too loud and that last too long is \_\_\_\_\_-induced hearing loss.
9. Talking quietly so that only one person can hear is \_\_\_\_\_. (30 decibels)
12. Hearing protectors that fit inside your ears are \_\_\_\_\_.
13. A popular car sport is \_\_\_\_\_. (140 decibels)
15. An event attended by music fans is a \_\_\_\_\_. (110 decibels)
16. The part of your body that helps you hear is the \_\_\_\_\_.

### Down

1. A farm vehicle for field work is a \_\_\_\_\_. (100 decibels)
2. Talking in a voice that is too loud is \_\_\_\_\_. (115 decibels)
6. A grasscutter for a yard is a \_\_\_\_\_. (90 decibels)



8. Hearing protectors that fit on your head and make you look like a disc jockey are \_\_\_\_\_.
10. Loss of hearing from too much noise can be \_\_\_\_\_. (Hint: It is the opposite of temporary.)
11. A unit of measure that describes the intensity, or loudness, of a sound is the \_\_\_\_\_. (Hint: It is named for Alexander Graham Bell.)
14. The part of your ear that vibrates when loud sound reaches it is the \_\_\_\_\_. (Hint: A band instrument has the same name.)

Answers: 1. tractor 2. yelling 3. leafblower 4. blowdryer 5. volume 6. lawnmower 7. noise 8. earmuffs 9. whispering 10. permanent 11. decibel 12. earplugs 13. racing 14. drum 15. concert 16. ear

The National Institute on Deafness and Other Communication Disorders (NIDCD) sponsors ***It's a Noisy Planet. Protect Their Hearing.*** This national public education campaign is designed to increase awareness among parents of children ages 8 to 12 (twins) about the causes and prevention of noise-induced hearing loss (NIHL). With this information, parents and other adults can encourage children to adopt healthy hearing habits before and during the time that they develop listening, leisure, and working habits. To find out more about how to protect your hearing and that of your family, visit the Noisy Planet website at [www.noisyplanet.nidcd.nih.gov](http://www.noisyplanet.nidcd.nih.gov).

For more information about your hearing and hearing loss, contact:

#### NIDCD Information Clearinghouse

1 Communication Avenue, Bethesda, MD 20892-3456

Voice: (800) 241-1044

TTY: (800) 241-1055

Fax: (301) 770-8977

E-mail: [NPIInfo@nidcd.nih.gov](mailto:NPIInfo@nidcd.nih.gov)



National Institute on  
Deafness and Other  
Communication Disorders

**NIH...Turning Discovery Into Health®**

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# HOW CAN LOUD NOISES HARM YOUR HEARING?

## PRETEENS

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### How can I protect my hearing?

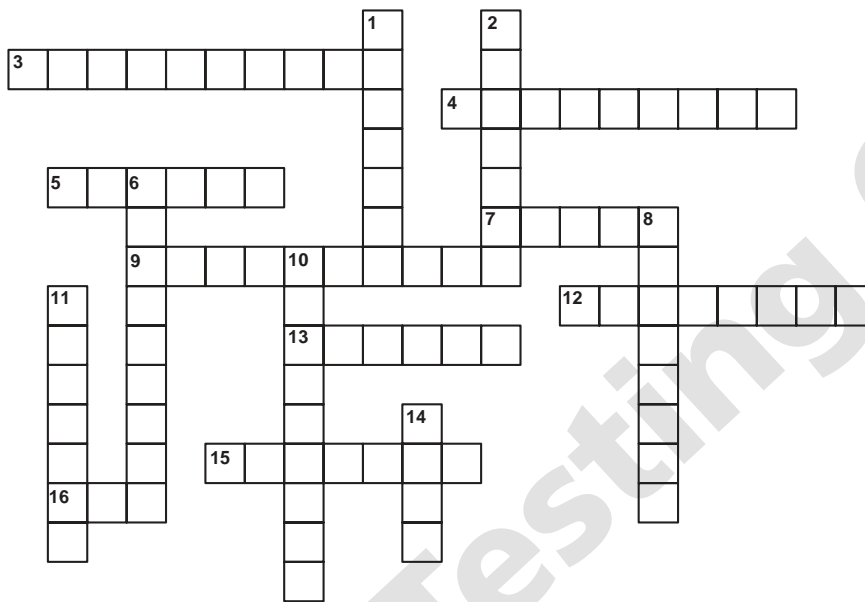
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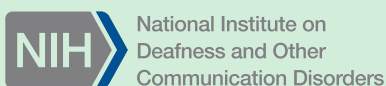
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## Science of noise-induced hearing loss

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Noisy Planet is an educational campaign to raise awareness about noise-induced hearing loss and hearing protection. The campaign is celebrating it's 5th anniversary of promoting healthy hearing habits to thousands of parents and preteens.



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Icon of two children

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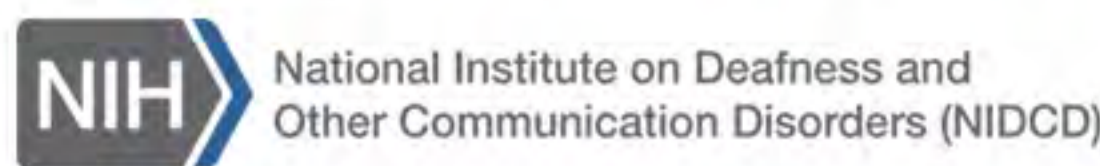
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