



## LISTEN UP! NOISES CAN DAMAGE YOUR HEARING

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**S**ounds surround us. We enjoy many of them—like music, birdsong, and conversations with friends. But loud or long-lasting noises—from motors, power tools, and even headphones—can permanently damage your hearing. Take steps to protect your ears from harmful noises.

Loud noise is one of the most common causes of hearing loss. An estimated 26 million Americans between the ages of 20 and 69 already have irreversible hearing loss caused by loud sounds. And up to 16% of teens have hearing loss that may have been caused by loud noise.

“Noise damage can begin at any age, and it tends to accumulate over time. That’s why avoiding excess noise is so critical,” says Dr. Gordon Hughes, a clinical trials director and ear, nose, and throat specialist at NIH. “Hearing loss caused by noise is completely preventable.”

For adolescents, music players with headphones are a common source of noise exposure. “With adults it may be power tools, lawn mowers, snow blowers, and other sources of that type,” Hughes says. “Workplace noise—like farm machinery, construction, and noises associated with military service—may also cause problems.”

Noise-related hearing loss can arise from extremely loud bursts of sound, such as gunshots or explosions, which can rupture the eardrum or damage the bones in the middle ear. This kind of hearing loss can be immediate and permanent.

But most noise-related hearing problems develop slowly over time, with ongoing exposure to loud sounds. Loud noises can injure the delicate sensory

cells—known as hair cells—in the inner ear. “These cells have little hair-like tufts on one side,” Hughes says.

Hair cells help to convert sound vibrations into electrical signals that travel along nerves from the ear to the brain. These cells allow us to detect sounds. But when hair cells are damaged and then destroyed by too much noise, they don’t grow back. So hearing is permanently harmed.

Sometimes loud noises can cause tinnitus—ringing in the ears that lasts anywhere from a brief period to a lifetime. Loud noises can also cause temporary hearing loss that goes away within hours or a couple of days. “But some research suggests that even though the symptoms disappear, there may be molecular or chemical abnormalities that build up and cause potential for long-term damage to hearing,” Hughes says.

It’s best to avoid loud noises when possible. But how loud is too loud?

Sound is measured in units called decibels (dB). Sounds less than 75 dB are unlikely to harm hearing. Normal conversation, for instance, measures about 60 dB. A typical hair blow dryer has an intensity of about 85 dB, but if they’re used for just brief periods, they’re unlikely to damage hearing.

However, long or repeated exposure to sounds at or above 85 dB can cause problems. The louder the sound, the quicker the damage.

“At maximum volume, an audio player with ear buds might produce 105 dB. There’s potential for noise damage to occur at barely 30 minutes of exposure,” Hughes says. A siren may be 120 dB, a

rock concert 110 dB, a motorcycle 95 dB, and a lawn mower 90 dB. All these have the potential to harm hearing over time.

“Wear ear protection such as ear plugs if the sound can’t be avoided. Or just get away from the sound, or reduce it, like turning down the volume on an audio player,” Hughes says. Foam insert earplugs can keep some sound intensity from reaching the eardrum, as can protective earmuffs, available at hardware and sport stores. For better ear protection, talk with a hearing specialist about getting a custom-fitted ear mold.

Finally, don’t forget to protect the ears of children who are too young to protect their own. And get a hearing test if you think you or a loved one might have hearing loss.

### IT’S A NOISY PLANET: PROTECT YOUR HEARING

Your ears can be your warning system. Noise is too loud when:

- You have to raise your voice to be understood by someone standing nearby.
- The noise hurts your ears.
- You’ve got a buzzing or ringing in your ears, even temporarily.
- You don’t hear as well as you normally do until several hours after you get away from the noise.

If you’re around noises at this level:

- Turn down the sound.
- Avoid the noise (walk away).
- Block the noise (wear earplugs or earmuffs).

## TINY DEVICES CAN KEEP YOU CONNECTED

Many people slowly lose their hearing as they get older. Not being able to hear well can make it hard to communicate. That can affect your relationships, emotional well-being, and work performance.

For those who need them, hearing aids can help. These electronic devices are worn in or behind the ears. They make sounds louder. Close to 29 million adults could benefit from hearing aids, yet only 1 in 4 of them has ever used one.

An exam of your ears, nose, and throat might detect a physical reason why you're not hearing as well. You may want to start by talking with your primary care provider or an ear, nose, and throat doctor, also known as an ENT or otolaryngologist.

A doctor can look for ear wax, an infection, injury, or other reason for hearing loss. A hearing test can show the type and amount of hearing loss. For a hearing test, your doctor may refer you to an audiologist.

If ear wax or an ear infection is the cause, the hearing loss may be temporary. Other causes, such as nerve damage, may lead to more permanent hearing loss. Nerve damage can be caused by loud noises, as a side effect of certain medicines, or for other reasons. Hearing aids may help in these cases.

Some people don't want to try hearing aids because of how they think it might look to others. "Hearing loss is far more obvious than a hearing aid," says Dr. Kelly King, an NIH hearing health expert. "The hard work people do to compensate for their hearing loss, and the mistakes they sometimes make when communicating, make the loss more noticeable to those around them than a hearing aid."

And now, advances in technology are making hearing aids less visible. "One of the biggest changes that has taken place in the last 15 years is a major reduction in the size of these devices," King says. Some can be hidden inside the ear canal. Others are worn over the ear.

Choosing the best device for you will depend on factors like cost, features, and your amount of hearing loss. Today's hearing aids offer different features. For example, some can connect to your mobile phone, TV, and other devices using Bluetooth technology. That means you can talk on your phone and stream music directly to the speakers within the hearing aids without wires.

It's important to understand that hearing aids can't restore your hearing the way that reading glasses correct vision. Instead, a hearing aid can help you make the most of your remaining hearing by making sounds louder. If it's been a while since you've heard the soft sounds of speech, your brain may need time to re-learn and translate those sounds for you.

Do you think you may need a hearing test? Take the quiz in below to help you decide.

## DO YOU NEED YOUR HEARING TESTED?

If you answer yes to several of these questions, you may want to get a hearing test:

- Is it hard to hear or understand others?
- Do you get frustrated trying to hear things?
- Do people get frustrated because they need to repeat what they say to you?
- Do you turn up the TV or radio louder than those around you would like?
- Do you have trouble hearing what people are saying in restaurants or at the movies?
- Is your social life, school, or job limited by your problem with hearing?

## MHBP COVERAGE FOR HEARING SCREENING AND HEARING AIDS

MHBP offers routine hearing screening as recommended under the U.S. Preventive Services Task Force. MHBP provides coverage for hearing aids every five (5) calendar years. For more

information, contact MHBP at 800-410-7778 for Standard Option and Value Plan or call 800-694-9901 for Consumer Option.

## DISCOUNT PROGRAMS

MHBP offers two discount hearing related discount programs, Hearing Care Solutions Program and Amplifon.

Hearing Care Solutions offers you:

- Program available to members of MHBP and their family
- Complete hearing exam at no charge
- All sizes, styles and colors to choose from
- Choice of 9 major manufacturers
- 3-year supply of batteries (up to 240 cells per hearing aid) Battery savings program available, after 3 years
- 1-year of routine, in-office service, at no charge, with original provider
- 60-day evaluation period
- Over 4,000 locations throughout the country

With Amplifon, you'll enjoy:

- Low price guarantee on hearing aids
- 60-day trial period with money-back guarantee
- Continuous care—one-year free follow-up, three-year warranty, and two years of free batteries (maximum of 160 cells per hearing aid)
- Convenient locations near you
- Products from leading manufacturers, including Oticon, Phonak, ReSound, Siemens, Starkey, Miracle-Ear, Rexton, Sonic Innovations, Unitron, and Widex

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