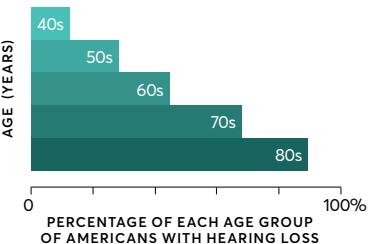


Insights

Notable news and smart solutions

HEARING-LOSS INCIDENCE IN ONE OR BOTH EARS INCREASES AS WE AGE*



No More Suffering in Silence?

Hearing loss is a widespread problem associated with depression and perhaps even dementia. We report on affordable solutions and what's being done to give everyone access to treatment.

by Julia Calderone



AGE-RELATED HEARING loss has long been thought of as an inevitable part of getting older, more a nuisance than a life-altering medical condition—at least by those not experiencing it. But that's all changing. In the past two years, the President's Council of Advisors on Science and Technology (PCAST) and the National Academy of Sciences (NAS) have published reports calling untreated hearing loss a significant national health concern, one that's associated with other serious health problems, including depression and a decline in memory and concentration. Several studies even suggest a link between hearing loss and dementia.

The estimated 48 million Americans affected by hearing impairment didn't need that memo. More than 100 years ago, Helen Keller, who was deaf and blind, described the isolation caused by hearing loss aptly when she said: "Blindness

separates people from things. Deafness separates people from people."

Lise Hamlin, director of public policy for the nonprofit Hearing Loss Association of America (HLAA) echoes that sentiment: "We're social creatures. When you shut down the ability to talk and interact with people, that isolation affects your health and your ability to participate in society."

Recent research shows that the number of Americans of working age with hearing loss has declined slightly, but it continues to be a problem for seniors, affecting 28.6 million Americans ages 60 and older.

Despite the prevalence of hearing loss and the negative impact it can have on health and quality of life, relatively few people seek treatment. Almost half of the 131,686 Consumer Reports subscribers surveyed for our 2015 Annual Fall Questionnaire reported having trouble hearing in

Some advocacy groups say that hearing aids are more expensive than they should be and that cost is an obstacle to treatment.

noisy environments, yet only 25 percent had their hearing checked in the previous year. And according to research published in the Archives of Internal Medicine, just 14 percent of those who could benefit from hearing aids actually use them.

People don't seek help for several reasons. A common one, according to NAS, PCAST, and others, is that they can't afford it. NAS reports that hearing aids cost an average of \$4,700 per pair in 2013 and can climb to almost twice that price. And they're usually not covered by health insurance or Medicare.

No wonder the market for less expensive, over-the-counter hearing helpers known as PSAPs (personal sound amplification products) is growing.

We dug deep to find out why hearing aids and treatment for hearing loss can be so costly, and what's being done to bring solutions within reach. We also tried several PSAPs

Now Hear This

Where do you fall on the hearing-loss spectrum?

THERE ARE two main types of hearing loss. **Sensorineural**, the most common, is usually caused by the destruction of hair cells in the inner ear due to aging, certain drugs, heredity, loud noises, and nerve damage from illnesses

like mumps. It's the type that most affects people over 60 and is treated with hearing aids or cochlear implants, devices that send sound signals directly to the auditory nerve, which carries them to the brain. **Conductive** hearing loss occurs when a

physical block such as earwax or a malformation stops sound from traveling through the ear canal. Removing the blockage or corrective surgery usually restores hearing. Hearing loss is measured by degrees ranging from mild to profound.

Although the best way to know whether you have a hearing impairment—and to what degree—is to see an audiologist or other hearing professional, this graphic can give you an idea of where you may fall on the scale.



Mild

Difficulty hearing soft speech or quiet conversations, or sounds such as a babbling brook.



Moderate

Trouble hearing conversations amid background noise; inability to hear the hum of a refrigerator motor.



Moderate/Severe

Difficulty understanding group conversations or hearing sounds such as a running shower or an air conditioner.



Severe

Inability to hear speech at normal volumes and sounds such as a toilet flushing or a garbage disposer.



Profound

Difficulty hearing or total inability to hear even the loudest of noises, such as a revving motorcycle engine.

to determine whether they're an affordable alternative to hearing aids for some people. Here's what we uncovered.

Great Strides in Treating Hearing Loss

Though most of us take our hearing for granted until we begin to lose it, the ability to perceive and make sense of sound is a marvel. In simple terms, sound waves travel through the air to the inner ear. There, microscopic hair cells convert them into electrical signals that are shuttled to the brain, which interprets them as meaningful sounds, language, music, and more.

But a constellation of abnormalities in the auditory system can cause this process to malfunction. For those who have mild to severe hearing problems (see "Now Hear This," on the facing page), hearing aids have traditionally been the solution.

These prescription devices contain a microphone that picks up and converts sound waves into electrical signals and an amplifier that makes the signals louder. The amplified sounds are directed by a speaker to the inner ear, where hair cells detect them and send them to the brain.

Worn in or behind the ear, hearing aids have come a long way since the handheld ear trumpets of the 19th century, particularly in the past 20 to 30 years. Today's aids are smaller and, thanks to digitization, better at amplifying sound specifically in the frequencies where it's needed. Most aids can now be adjusted by wearers for a variety of environments, from quiet rooms to loud parties.

Modern hearing aids are also better at reducing unpleasant feedback and background noise. They often have telecoils, small copper wires that improve sound clarity by picking it up directly from phones and public-address systems. At the higher end, hearing aids may have features such as Bluetooth connectivity, allowing users to

stream music and take phone calls through them.

A result of this progress is that 46 percent of our survey respondents reported that they were very or completely satisfied with their aids. Just 3 percent of those who reported trouble hearing but don't use hearing aids noted that they had tried the devices and found they didn't work.

Despite the advances, experts say that even the most sophisticated devices can't fully normalize impaired hearing. As Marvin M. Lipman, M.D., Consumer Reports' chief medical adviser, notes: "No hearing aid can match the efficiency and function of the human ear. There's nothing like the real thing."

Some people benefit more from hearing aids than others. "You can have two people with identical audiograms who have very different functionality," says Debara Tucci, M.D., a professor of otolaryngology at the Duke University Medical Center, referring to a commonly used hearing test.

In many cases, people don't think their hearing loss is severe enough to warrant treatment or they simply don't want to wear aids. Then there's the image problem: Hearing aids are still sometimes viewed as a sign of faltering health. "There's much more of a stigma about wearing a hearing aid than there is for wearing glasses," says James C. Denneny III, M.D., CEO of the American Academy of Otolaryngology—Head and Neck Surgery.

Priced Out of Treatment Options

You can buy the newest smartphone, a far more complex device than any hearing aid, for less than \$1,000. But hearing aids typically cost \$3,300 to \$8,000 per pair—and prices continue to rise.

Groups such as NAS and PCAST say that hearing aids

5 Ways to Save Money on Prescription Hearing Aids

If you're considering hearing aids but worry about the cost, these steps can guide you to some affordable solutions.

1. Investigate your coverage.

Veterans Affairs offers hearing aids for veterans, and some children, federal workers, and residents of Arkansas, New Hampshire, and Rhode Island can get them covered by insurance.

Some plans, including almost half of those from Medicare Advantage, offer at least partial coverage or discounts. If you have a health savings or flexible spending account, you can use it to pay for hearing aids and batteries with pretax dollars.

2. Shop around.

Costco, which was highly rated for customer satisfaction in our survey (see below), offers no-cost screenings at some stores and hearing aids for about \$500 to \$1,500 each. Buying aids online can save you as much as \$2,000 per pair, but

you may also need to mail them back for adjustments or pay a local specialist to adjust them. It's always wise to see a doctor or audiologist first to determine your hearing needs and rule out other medical concerns.

3. Don't buy more hearing aid than you need.

Skipping extras you won't use—such as Bluetooth capability—can slash your bill by hundreds of dollars.

4. Ask for a price break.

Almost half of the survey respondents who tried to negotiate received a lower price.

5. Check out groups that can help.

Some government, state, and independent organizations, such as Lions clubs, may help you pay for hearing aids or offer discounts. (Go to asha.org and search for "funding.")

READERS WEIGH IN ON RETAILERS

Criteria include hearing evaluations, product options, staff courtesy, and follow-up adjustments.

Retailer	Overall Score
Connect Hearing	85
Costco	84
Sam's Club	81
HearUSA	80
HearingPlanet	79
Audibel	77
Miracle-Ear	77
Beltone	76
Zounds Store	76
Starkey Store	76

HOW WE SURVEY: Scores are based on purchases of 6,278 individual hearing aids or matched hearing-aid pairs by 6,053 Consumer Reports subscribers. A score of 100 would mean that all respondents are completely satisfied; 80, that respondents are very satisfied, on average. Differences of fewer than 4 points aren't meaningful.

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are more expensive than they should be. The PCAST report cites a 2010 study that found that the cost of hearing-aid components could be purchased for less than \$100.

But many of the professionals who sell hearing aids, most of whom are audiologists with doctoral degrees, note that the price also covers many services. Todd Ricketts, Ph.D., director of graduate studies in hearing and speech sciences at the Vanderbilt University Medical Center, explains that evaluating people and then selecting, fitting, and adjusting hearing aids to ensure that they work as well as possible is exacting and time-consuming.

But “bundling” the price of the product and services together makes it more difficult for people to know exactly what they’re paying for. According to the NAS report, this lack of transparency also forces consumers to pay for services they may not need.

What’s more, neither Medicare nor a majority of commercial insurance plans—which often follow Medicare’s lead—cover the cost. Nor do they offer coverage for an additional fee, as many plans do with dental and vision care.

Given the established link between hearing loss and other serious health problems, why don’t private insurers or Medicare pay for hearing aids?

“I don’t know why we don’t cover the cost of hearing aids,” said a spokesman for Aetna, Matthew Clyburn, when we asked. “Medicare doesn’t cover them either, so it doesn’t seem to be highly out of the ordinary,” he added.

None of the representatives of the six large health insurers we spoke with could pinpoint reasons for this lack of coverage. (A few states require such coverage, and some insurers offer discounts on hearing aids.) The National Association of Insurance Commissioners said it’s a business decision.

In response to our questions,

a Medicare spokeswoman sent an email explaining that she couldn’t address why hearing aids are excluded from its coverage, and suggested that we refer to the Congressional Record of 1965—the year Medicare was signed into law—for an answer.

From the outset, Medicare specifically excluded hearing aids from coverage. They were far more affordable when the program was created, and hearing loss wasn’t viewed as a significant health concern. As Kim Cavitt, Au.D., an audiologist and adjunct lecturer at Northwestern University, says, “You don’t die from hearing loss.”

But the continued lack of coverage has not gone unnoticed by certain members of Congress. They, like lawmakers who tried before them, are pushing to make hearing aids more affordable and easily available.

“We know now that 70 percent of all seniors between 65 and 84 who need a hearing aid simply do not get one, many times because they can’t afford it,” says Rep. Debbie Dingell, a Democrat from Michigan, who introduced a bill in 2015 that would require Medicare to pay for the devices. “People with untreated hearing loss are cut off from their communities,” she says. “They feel isolated and depressed. We must get agreement in Congress that people need to hear.”

Dingell’s bill failed to get traction, but she says she plans to reintroduce it this year. In December, Sens. Elizabeth Warren, D-Mass., and Chuck Grassley, R-Iowa, introduced legislation that would make simple, more affordable hearing aids easier for consumers with mild to moderate hearing loss to obtain by allowing them to be sold over-the-counter and eliminating the requirement that consumers have a medical exam or sign a waiver before purchasing them. The Food and Drug Administration

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Are OTC Hearing Helpers Any Good?

Personal sound amplification products are much cheaper than hearing aids. But do they work? We tested a handful to find out.

PERSONAL SOUND amplification products, or PSAPs, cost a fraction of the price of the average hearing aid. The more expensive ones are about \$500 each; prescription aids generally start at about \$1,650 each, including fees for the services of an audiologist or hearing-aid specialist. (Some less expensive prescription aids are available online and through retailers such as Costco.)

The Food and Drug Administration doesn’t allow PSAPs to be marketed as devices to improve impaired hearing. But the National Academy of Sciences and the President’s Council of Advisors on Science and Technology have recently said that PSAPs can help some people with mild to moderate hearing impairment. Both groups are calling for the FDA to allow PSAPs to be marketed as a way to address hearing loss.

To find out whether these hearing-aid look-alikes can help people, we asked three CR employees who were diagnosed with mild to moderate hearing impairment to try four devices priced from \$20 to \$350. They wore them for three to seven days at the office, at home, in restaurants, and in our audio labs, where we tested how well the devices could help them pick out words in a noisy environment.

For an expert’s opinion, we had a hearing-aid researcher assess each

PSAP in such areas as amplification, battery and microphone function, and sound distortion.

We found that some PSAPs, if properly fit and adjusted, can help some people with mild to moderate hearing loss. (See “Now Hear This,” on page 16.) As with a hearing aid, the effectiveness of a PSAP can vary depending on the product. So it’s best to have a professional hearing test first, and consider asking an audiologist or hearing-aid specialist for guidance in determining which device is right for you.

When Pinching Pennies Can Hurt You

Our PSAP evaluations included two very inexpensive models—the Bell & Howell Silver Sonic XL and the MSA 30X—priced at \$20 and \$30, respectively. They showed very little benefit in any of our tests and sometimes actually blocked incoming sounds the way earplugs do.

Even more of a concern is that our hearing expert says these devices have the potential to cause additional hearing damage by overamplifying sharp noises, such as the wail of a fire engine.

Our expert recommends avoiding very inexpensive models, which generally cost less than \$50. They don’t seem to help much—if at all—and could actually further diminish your ability to hear.

Conversation Piece



SoundWorld Solutions CS50+
\$350

This rechargeable device offers some background noise reduction; settings for entertainment, everyday, and restaurant environments; and Bluetooth capability. It can be customized with a smartphone app to amplify the frequencies a user needs amplified most.

WHAT WE LIKED

Panelists found it comfortable and easy to use; two out of three felt it improved their ability to hear a TV and conversations. Our expert noted that it's the only PSAP we tested that allows users to tweak settings to amplify sounds in the frequencies where they have the most trouble hearing, a feature similar to what you'd find in a basic hearing aid. The directional microphone can pick up sounds in front of the user, making it easier to hear conversations in noisy places like a crowded restaurant. Panelists also found it useful to be able to pair this PSAP with smart devices via Bluetooth, which allowed them to take phone calls and stream music while wearing it.

WHAT WE DIDN'T LIKE

The CS50+ didn't significantly help wearers decipher conversations in the noisy environment we created in our lab. One panelist thought it minimally improved hearing but found it useful for streaming music. Our expert noted that none of the three panelists were able to adjust the customizable settings to optimally compensate for their hearing loss.

OUR DEVICE ADVICE

The CS50+ could be of use to people with early or mild to moderate hearing loss. The customizable settings and smartphone connectivity mean the device can potentially work as well as a simple hearing aid for some people, though only if fit and settings are adjusted correctly. The device protects your ears by limiting overamplification of sharp, hearing-damaging sounds, such as a wailing fire engine, though not as much as the Bean (below).

Tuned Into TV



Etymotic Bean
\$214 (\$399 if purchased as a pair)

An in-ear device that runs on disposable batteries that can last about one to two weeks, the Etymotic Bean has an omnidirectional microphone that picks up sounds around the wearer. A toggle switch controls volume levels.

WHAT WE LIKED

Panelists found the Etymotic Bean easy to use and inconspicuous; most reported that it improved their ability to hear a TV. Our expert liked the fact that it requires no initial adjustments, is ready to use right out of the box, and—unlike less expensive devices—protects against overamplification of loud sounds, which could damage hearing.

WHAT WE DIDN'T LIKE

It didn't significantly help wearers decipher conversations in the noisy environment we created in our lab. Panelists reported that the device squealed unpleasantly until it was placed firmly in the ear, and that it can turn on when stored in the case, draining the battery. Our expert said the shallow tip could lead to a blocked or stuffy feeling in the ear. He also noted that the small parts may be challenging to manipulate and that the device doesn't amplify sounds in the lower pitches, such as vowel sounds like the letter "o" in the word "pot."

OUR DEVICE ADVICE

The Etymotic Bean can be helpful for those with early or mild to moderate hearing loss in the higher frequencies. But it probably won't amplify sound enough if your hearing loss is in the low frequencies (think bass drum) or extremely high frequencies (the whine of a mosquito). Although it doesn't reduce background noise, placing the device in an ear properly may block out some unwanted sounds.

recently announced that it would no longer enforce the medical exam or waiver requirement.

Affordable Over-the-Counter Solutions

Given the high cost of hearing aids, it's no surprise that we're seeing a growing array of less expensive OTC products, such as wireless headphones for TV watching and phone apps that amplify sound. But PSAPs, which range from about \$10 to \$500 each, are the most common OTC option.

They sit in or behind the ear and have some of the same components as hearing aids: a microphone, an amplifier, and a receiver. In theory, they should boost the volume of the sounds you have trouble hearing. Some may reduce background noise, as many prescription aids do.

Most PSAPs are fairly basic, offering few or no adjustments for varied environments—say, outdoor spaces or movie theaters. And unlike a majority of hearing aids, PSAPs are generally analog, not digital, so they're usually less able to reduce annoying feedback and

to consistently target only the frequencies in which users really need amplification. "That's a big difference," says Cavitt, who co-authored a 2016 study comparing PSAPs with hearing aids. "When the sound comes in, does it merely amplify it, or can it also suppress feedback or extraneous noise?"

These differences may be challenging for consumers to discern. PSAPs aren't regulated by the FDA as hearing aids are, and manufacturers aren't permitted to call them hearing aids or claim that they improve impaired hearing. (In fact, according to the FDA, the devices aren't meant to compensate for hearing loss but are "intended for non-hearing-impaired consumers to amplify sounds in certain environments.")

And because PSAPs are so loosely regulated, their manufacturers aren't held to the same safety or efficacy standards as hearing-aid manufacturers. "Consumers have no way of knowing whether one PSAP is better manufactured than another," says Neil DiSarno, Ph.D., chief staff officer for audiology at the American

'We must get agreement in Congress that people need to hear,' says Rep. Debbie Dingell, D-Mich.

Speech-Language-Hearing Association (ASHA).

Experts agree that people who already have moderate to severe hearing loss won't benefit from PSAPs. To see how well they work for those with mild to moderate hearing loss, Consumer Reports had three volunteers who fit that definition test four devices. (See "Are OTC Hearing Helpers Any Good?", on page 18.) We found that the higher-end PSAPs helped some of our volunteers hear better, especially while watching TV.

Ricketts urges consumers to see a hearing professional to determine their level of hearing loss and which frequency ranges need amplification most. (A hearing specialist can also diagnose more easily remedied conditions such as earwax buildup or more serious problems such as ear-canal tumors.) A majority of audiologists don't sell PSAPs or adjust those that consumers buy on their own, although this might soon be changing. "Even if PSAPs are not perfect," Denneny says, "they may give people a relatively simple entry point into the healthcare system at a markedly reduced cost."



RECALLS



FOOD PROCESSORS

The main processing blade—used for cutting, chopping, and dicing—on about 8 million Cuisinart food processors has been recalled because it can crack and break over time. There have been 69 reports from consumers who found small metal pieces from a cracked blade in their food; in 30 cases, they suffered cuts to the mouth or tooth injuries. The processors were sold online and at stores from July 1996 through December 2015.

What to do Stop using the blade immediately and contact Cuisinart at 877-339-2534 or go to cuisinart.com to get a free replacement blade. You can still use the processor with its other attachments.



SMOKE/CO ALARMS

Kidde is recalling about 3.6 million NightHawk combination smoke/CO alarms. Once the backup batteries are replaced, the units can fail to chirp when they reach their seven-year end of life, which may lead users to think they're still working. That means that consumers may have no alert during a fire or CO incident. The alarms were sold online and at electrical distributors and home centers nationwide from June 2004 through December 2010.

What to do Replace the alarm. Contact Kidde at 855-239-0490 or go to kidde.com for a free replacement alarm or a discount on a new one.



DEHUMIDIFIERS

The manufacturers Gree and Midea are recalling about 5.9 million dehumidifiers because they can overheat, smoke, and catch fire, posing serious fire and burn hazards. Midea is recalling 51 brands sold at stores nationwide from January 2003 through December 2013. Gree is recalling 13 brands sold online and at stores from January 2005 through August 2013.

What to do Stop using the appliance. Go to midea.com/us/ or greedehumidifierrecall.com for details on affected brands and model names. Call Gree at 866-853-2802 for a full refund or Midea at 800-600-3055 for a replacement or partial refund.