

Hearing Dogs: Your Best Friend

Hearing Dogs are faithful companions who assist people who are deaf or have severe-to-profound hearing loss. These furry friends are trained to alert their owners to important sounds that might include a doorbell, an alarm clock, a ringing telephone, a baby crying, a smoke alarm, or other sound that is part of daily life.

Hearing Dogs are trained to make physical contact with you when such sounds occur, gently leading you to interact as needed with the source of the sound. Their physical contact can also be more urgent in response to more critical sounds. For instance, a Hearing Dog might jump on your chest when you are sleeping if your smoke alarm goes off. As you might imagine, having a Hearing Dog in your life can give you a much greater sense of safety, security, and independence.

What Makes a Good Hearing Dog?

Hearing Dogs are generally young, mixed breeds of small-to-medium size. Most are rescued dogs acquired from local animal shelters, so becoming a Hearing Dog gives these valued companions a second lease on life. The dogs must be in excellent health, with eager-to-please temperaments and energetic personalities. Each dog receives a thorough medical examination before their training begins, which can include blood work, vaccinations, or being neutered – whatever is necessary to ensure a long and healthy life.

Hearing Dogs who work only in the home environment are referred to as Home Hearing Dogs. Hearing Dogs who can also accompany their owners into public places are referred to as Hearing Dogs Certified for Public Access. Certified dogs have legal access to all public places when they are accompanied by you – thereby providing you with an increased awareness of any environment you choose to be.

Some Hearing Dogs can be trained to alert you to sounds such as sirens, forklifts, or even your name being called. However, even when a Hearing Dog is not trained to do this, their very presence and reactions to other sounds can help you to become more immediately aware of what is happening around you. Certified dogs usually receive an orange collar, leash, vest, or cape, as well as an official I.D. card, as visual cues to others that this special animal is helping someone who is deaf or hard of hearing.

Qualifying to Own a Hearing Dog

Individuals who screen applicants for Hearing Dogs want to make sure that the applicant is willing and able to physically, mentally, and emotionally maintain the dog's training and care without any assistance. Taking sole responsibility for your dog is essential, because the Hearing Dog must bond with you and not with someone else. They will require lots of time, consistent daily practice, and exercise. A full year of training is often required for both of you, so this is a big commitment – but it is also one with an enormous payoff.

When you apply for a Hearing Dog, you will likely be required to submit medical records of your current level of hearing loss, though there is no exact degree of loss required to qualify. Those who spend many months training Hearing Dogs want to make sure the dogs go where they will be able to help the most. In-home interviews are a common prerequisite that provide additional details of your needs, lifestyle, and the necessary cooperation and support of any other household members. Other common requirements or restrictions to qualify for a Hearing Dog include:

- A fenced area attached to the home.
- A home with no other dogs, except possibly another retired Hearing Dog.
- No other pets, with the possible exception of a cat that does well with dogs.
- You are at least sixteen years of age (with some special exceptions).
- Training trips into public places several times a week if you are applying for a Hearing Dog who is certified for public access.

Finding the Right Fit

Once you have been matched with a Hearing Dog that is the right fit for your temperament, environment, and lifestyle, a professional trainer will deliver the dog to your home. He or she will teach you how to maintain, and even expand upon, the dog's training, so that you can establish an effective working relationship with your Hearing Dog. This helps to ensure an excellent bond between you and your new Hearing Dog that can be mutually beneficial for many years to come.

Hearing Technology Today

Hearing loss can make it difficult to communicate in a satisfying way. Fortunately, advances in digital technology can help lower communication barriers by amplifying sounds to make them clearer and to compensate for frequency-range losses. A qualified audiologist can help you choose the best equipment options to fit your specific needs. The range of this technology includes many solutions, such as:

- Hearing Amplifiers
- Amplified Phones
- Assistive Listening Devices
- Alerting Devices
- Cochlear Implants

Hearing Amplifiers

Hearing amplifiers, or hearing aids, are much more sophisticated than they used to be. Modern hearing aids do not just offer volume control; they can improve your listening experience in a variety of ways. For instance, they can amplify frequencies that are essential to understanding speech, allowing you to hear spoken words much more clearly again. And they can reduce or eliminate unwanted background noise or sound peaks, even enabling you to hear from much greater distances than before.

Hearing aids come in a variety of styles and can be worn in a number of different ways – behind the ear, in the ear, partially in the canal, or completely in the canal. Your audiologist can help you choose the best style for your hearing needs. Of course, a period of adjustment should be expected with any hearing aid, but once you realize how much of a difference it makes, a surprising transformation can often take place. This is especially true when you couple your hearing aid with one or more of the available assisted listening devices on the market.

Amplified Phones

Imagine a phone that allows you to hear more clearly and never miss a call. If your current phone is not loud enough for you, why not try an amplified phone? Amplified phones are ideal people with moderate-to-severe hearing loss. Amplified phones are just like the phone you use every day, yet with higher volume levels and other features to make your phone more useful. You can easily amplify phone conversations to a comfortable level. Most amplified phones also come with an extra-loud ringer and a flashing indicator to alert you to incoming calls.

Assistive Listening Devices

Assistive listening devices, used either in conjunction with or independent of hearing aids, are a good option for many people with hearing loss. In addition to improved hearing, some of the added benefits that

can result from the correct use of these devices include improved communication, increased self-esteem, and a more positive outlook about your hearing loss.

Hearing Amplifiers

As mentioned above, an amplified phone may be the answer for you. But you may prefer to simply connect your telephone to your hearing aid. Telephone amplifiers connected to a phone allow people with moderate-to-severe hearing loss to improve their calling experience. Even with a hearing aid, you may have trouble hearing on the phone. Hearing amplifiers allow you to use your hearing aid to make volume and tone adjustments during a phone call. Some telephone amplifiers have flashing lights when the phone is ringing, and adjustable tone and volume controls.

Infrared Systems

Infrared systems convert sounds into infrared light waves. A transmitter sends the sound to a receiver and, when coupled with a hearing aid, allows you to adjust the loudness on certain televisions and home theaters.

FM Systems

With an FM system, you can wear a small microphone that sends the sound directly to a receiver in your hearing aid or headset, allowing you to set a comfortable volume level. This is very useful if you attend events, such as public lectures or adult education classes.

Alerting Devices

Alerting devices are used to signal the presence of sound in the environment, such as a ringing telephone, a doorbell, or a smoke detector. Alerts can be conveyed by a flashing light or loud ringer on the telephone or in the home, or by a vibration that you can feel on a wearable device.

Cochlear Implants

A cochlear implant is a small, complex electronic device that can provide you with a sense of sound if you have profound hearing loss. The implant consists of an external portion that sits behind the ear and a

second portion that is surgically placed under the skin. An implant does not restore normal hearing, but it can give you a useful representation of sounds in the environment, such as speech.

Being well informed and making the right choices for your own hearing ability, whether through your own research or through the guidance of a trained audiologist, is an important step toward hearing more effectively and communicating more easily with the world.

Preparing for an Emergency with Hearing Loss

Emergency warning systems must make all information accessible to people who are deaf or hard of hearing – it is federal, state, and local law. The best way to protect yourself in the event of an emergency, such as a natural disaster or an industrial crisis, is to ensure that you will receive detailed warning information in a timely fashion.

You can be optimally prepared in the event of an emergency by having a variety of ways to receive emergency warning information, including emergency pagers, adaptive radio receivers, cell phones or mobile devices, television, the internet, and by having your own designated emergency team.

Emergency Pagers

Emergency pagers vibrate when an emergency warning is issued. These pagers can provide you with full text of emergency messaging with regular updates. The service is available for free in all 50 states through the Emergency Email Network at www.emergencyemail.org.

Adaptive Radio Receiver

When an emergency message is sent via adaptive receiver, available at many electronics stores, the receiver can turn on automatically, activate a warning light, write a short message on your display (e.g. FLASH FLOOD WARNING), and trigger external devices, such as bed shakers, vibrating pillows, or strobe lights. Text message information provided by these receivers can be limited, though more sophisticated devices can deliver the entire text of the emergency warning via satellite feed, able to reach even the most remote areas.

Whatever adaptive receiver device you choose, visit the National Weather Service web site at www.weather.gov/nwr to determine if the area in which you live is covered. Also make sure that whatever alerting systems you choose work even when commercial power has failed.

Cell phone or Mobile Device

Available Emergency Alert Systems (EAS) can deliver video warning messages to you in American Sign Language (ASL) within seconds, and send the messages to multiple devices, such as your cell phone or mobile PDA. Systems have also been developed that can re-dial your phone multiple times if there is a busy signal or no answer. Such systems also provide features that allow you to confirm receipt of the call or to reroute the call to someone else that you designate.

Television

All television, cable, and satellite TV companies have a legal responsibility to include closed captioning for local emergency news. Despite Federal Communication Commission (FCC) regulations that require TV broadcasters to provide all essential emergency information visually, these captions can lack important information about the nature of the emergency and what to do about it - unless your local station has a stenocaptioner available on call at all times. Contact your local TV stations to find out how they approach

crisis situations.

Internet

Emergency alert messages from the National Weather Service (NWS) are available on the internet at www.weather.gov.

Designate an emergency team

Even with an emergency pager, adaptive radio receiver, cell phone, mobile PDA device, television, and the internet, it is still possible to miss a warning under certain unforeseen conditions. It is, therefore, wise to also have your own emergency team, a group of trusted individuals that will make sure you get emergency warnings if they occur. It is also a good idea for your household to have an emergency plan in place prior to any crisis, which can be developed with assistance from your local or state emergency management office or the Federal Emergency Management Agency. Of course, any such plan should include input from your designated emergency team.

Be Proactive

Emergency warning systems must be 100% accessible for the hearing impaired, otherwise one or more laws and regulations from various federal and state agencies are being broken. If you discover this to be the case, be proactive. File a complaint with the FCC against a broadcaster that doesn't provide close captioning of complete emergency information.

If necessary, take the time to educate town officials and the rest of the community about essential warning options that can help protect you and others in the event of an emergency. Your action and foresight may help prevent injuries or save lives within the community someday.

See also:

Interagency Coordinating Council on Emergency Preparedness and Individuals with Disabilities. DisabilityPreparedness.gov. <http://www.disabilitypreparedness.gov/ppp/hearspeech.htm>

American Red Cross. Prepare.org. Tips for People with Hearing Impairments. http://www.redcross.org/museum/prepare_org/disabilities/hearingtips.htm

Federal Communications Commission (FCC). Emergency Communications Guide. <http://www.fcc.gov/guides/emergency-communications>

National Weather Service (NWS). www.weather.gov.

Hearing Damage Number 1 Disability in U.S. Vets

We won the war, but many veterans lost their hearing. Many sailors, marines, and airmen are inducted into service with excellent hearing and return with a range of hearing challenges. While most people lose their hearing gradually over several years, veterans are regularly exposed to instances that can cause damage to hearing.

Regular and repeated noise exposure damages the sensitive and intricate hair cells of the inner ear that translate sound vibrations into voices, music, and other sounds. Hair cells in the ear do not grow back, since they are highly developed, end-stage cells. In war, soldiers are caught in roadside bombings and firefights, and exposed to high pressure in deep waters and loud noises from vehicles, aircraft, and machinery.

These conditions have made hearing damage the number one disability resulting from the war on terror, according to the Department of Veterans Affairs. Of the more than 1.3 million troops who have served in the recent wars, nearly 70,000 are collecting disability for tinnitus, a ringing in the ears that can be debilitating. Over 58,000 troops are on disability for hearing loss.

Reducing Hearing Loss Risks

Hearing damage has increasingly become a greater risk of ground-based combat ever since explosive devices and advanced weaponry was introduced. The US military now issues earplugs for soldiers serving in the field. But combat situations can escalate unexpectedly. A firefight or ambush can often arise so quickly, there's no time to don one's hearing protection. Some soldiers also refuse to wear the ear protection because it limits their situational awareness, making them less aware of sounds that could save their lives.

Among the hearing protection solutions available, there is the Etymotic Research earplug technology that allows soldiers to reduce the risk of hearing damage while retaining the ability to detect and determine where a sound is located. Since this situational awareness is critical to maintaining safety in combat conditions, the EB15 device actively adjusts the protection level depending on the level of noise in the environment, thanks to the adaptive attenuation circuitry of the EB15 (attenuation is the opposite of amplification). So the EB15 can become a 15-dB earplug when higher noise levels increase the risk of hearing damage. This unique attribute protects the user from loud continuous noise, such as noise caused by machinery and vehicles, and from unexpected impulse noise, such as gunfire and explosions. But when no loud noise is present, the EB15 returns to natural hearing, as if nothing is in the ear to block sound. The EB15 also has a switch to boost faint sounds. With practice, most users are expected to experience normal situational awareness wearing the EB15 earplug technology, and to experience elevated hearing protection when needed.

Finding Hearing Loss Solutions

Although the military has increasingly attempted to provide effective earplugs that are easy to use, and education on hearing protection, these solutions can only go so far to preventing hearing damage. Damage can occur at 80 to 85 decibels, about the sound level of a tank in motion. The best protection reduces this

level of noise by only 20 to 25 decibels, which is not enough to protect against gunfire or explosions that produce 183 decibels or more.

The numbers are staggering for veterans with hearing damage. 60 percent of U.S. service personnel exposed to explosions suffer permanent hearing loss. 49 percent also suffer from tinnitus, according to military audiology reports. Hearing damage ranges from mild, trouble hearing whispers or low pitches, to severe, total deafness or a constant ringing that disrupts concentration.

There is no known cure for tinnitus or hearing loss. However, there are treatments and technologies that can allow people to live better with hearing loss. Advances in digital technology have made it possible to recover sounds. Digital devices cannot bring a person's hearing back fully, but they can amplify sounds to make them clearer and compensate for specific frequency-range losses.

To find out which hearing equipment or devices are best for a specific hearing challenge, veterans can start by having a hearing test, or an audiogram. A qualified audiologist can determine what is and is not being heard, and then recommend options for compensating for different types of hearing loss. Equipment choices are a highly personal matter. You may decide to choose a hearing aid to help you hear better. Or you may benefit from other assistive hearing technologies, such as phone call amplifiers, signal alerts that turn everyday sounds (doorbells, phone ringers) into flashing lights or vibrations, and/or a personal television amplifier.

See also:

Audiometric thresholds and prevalence of tinnitus among male veterans in the United States: Data from the National Health and Nutrition Examination Survey, 1999-2006. Department of Veterans Affairs, Journal of Rehabilitation Research and Development, Volume 48, Number 5, 2011, Pages 503-516.

National Center for Rehabilitative Auditory Research. Calendar year 2009 annual benefits report. Portland, OR. Department of Veterans Affairs, Rehabilitation Research and Development; 2010.

Tackling a Growing Problem for Veterans. Vanguard. Department of Veterans Affairs. Nov/Dec 2008. www1.va.gov/opa/publications/vanguard/08novdecVG.pdf

Severe Hearing Impairment Among Military Veterans, United States, 2010. **July 22, 2011**
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6028a4.htm?s_cid=mm6028a4_w

http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9735

http://www.hearingreview.com/issues/articles/HPR_2008-05_06.asp

<http://www.dangerousdecibels.org/education/information-center/faq/>

<http://www.etymotic.com/hp/eb15.html>

