



Using the Telephone: Equipment and Resources for Deaf and Hard of Hearing Persons

Northern Virginia Resource Center for Deaf and Hard of Hearing Persons

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Specialized Equipment Can Make Calls Easier

Using the telephone can be a major challenge for someone with a hearing loss, especially with a job that requires its use. Fortunately there are many products on the market and many advances in services to help with telecommunication. There have never been so many choices as there are now, and more exciting technology is on the way.

Always try equipment before you buy it. People's needs are highly individual. Two people with a similar hearing loss will not necessarily benefit equally from the same device.

The Northern Virginia Resource Center for Deaf and Hard of Hearing Persons has a demonstration center with many kinds of equipment and technologies that you can try. We also have more detailed information about products, services and resources mentioned in this fact sheet, and a list of vendors.

Making the Call

1. Amplified Telephone Handsets

Amplified handsets can be used to increase the volume of sound on the phone. They are sold in electronics and telephone stores and by hearing assistive device companies. Small strap-on amplifiers are available for use when traveling. These products can be used by people who do not wear hearing aids as well as those who do. They are generally more effective for milder hearing losses.

2. Telephones That Amplify and Clarify Sound

There are several brands of telephones that modify the sound you hear. All of them have a volume control. Some of the features you may find include the ability to increase the high frequency sounds, jacks to allow hands-free calling, extra loud ringers, lights that flash to alert you to the phone's ringing, low frequency or loud ringers, anti-feedback filters, and noise suppressors.

Some cordless phones also have special features that increase volume.

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Make Use of Your Telecoil (T-Switch)

Some hearing aids are equipped with a telecoil or “T-switch”. This gives your hearing aid or cochlear implant a great deal of flexibility when used with telephones and assistive listening devices. The telecoil can bypass a poor speaker in your telephone and send the magnetic signals directly to your hearing aid, producing a better quality sound.

If you use the telephone often, be sure to try hearing aids with this feature when shopping for one, or consider its importance when selecting a cochlear implant.

Since telecoils block outside sound, the person using the telephone does not have to struggle to try to separate the voice on the line from the noise in the room. A downside is that you may not be able to hear your own voice well. Some hearing aids have a switch that mixes both the microphone and telecoil settings, allowing some extraneous sound. This is useful for situations such as when parents want to monitor their children while talking on the telephone.

3. Cell Phones and PDAs

Hearing aid and cochlear implant users have long reported that digital cellular telephones cause annoying interference, such as a buzz or hum. Federal Communications Commission regulations now require hearing aid compatibility on a certain number of cell phones. These phones must also be identified with specific labeling.

Finding a cell phone that will work well with your hearing loss can take time. You will need to test the cell phone in the places you would normally use it. The Hearing Loss Association of America, a national consumer organization, has led the fight for hearing aid compatibility of cell phones and its website has some good information to help in your search at www.hearingloss.org. You can also contact NVRC for resources.

Individuals who can't hear well enough to use a cell phone may still be able to communicate by sending short messages or emails using cell phones and personal digital assistants (PDAs). Consumer advocacy has led all of the major telephone companies to offer text-only plans for those who want to pay for a device that will only be used for typed messages or emails.

4. Teletypewriters (TTYs)

Also known as TDDs or text telephones, these are used by persons who cannot understand speech on regular or amplified phones. They are available in various sizes ranging from portables the size of a checkbook to the size of a book. They consist of a keyboard, a display screen, and acoustic cups.

Some TTYs have large visual displays for people who have both hearing and vision problems. Fancier models include features like auto redial, an answering machine, and a small printer with paper the size of a cash register tape. Some large companies, government agencies, and other organizations have TTY numbers to enable TTY users to call them directly. TTYs can also be used to make calls to hearing users who do not have TTYs through a relay service.

5. TTY Software and Modems

These allow computers to double as TTYs, using the computer keyboard, software, and access to a phone line. There are several software programs and modems on the market. A "TTY modem" is able to communicate in Baudot and ASCII codes, unlike regular Hayes-compatible modems, which can only communicate in ASCII. TTY modems allow the computer to be able to "talk" with the older TTYs which do not have ASCII capability.

The software permits conversations to be stored in folders on the computer for printing or future reference, and has phone books and other features. Calls are dialed directly from the computer. The software can be run in the background while you are working on another computer application, and you can quickly switch to the TTY program when your phone rings. TTY software can also be used for relay calls.

6. Voice Carry Over Telephones

These versatile telephones combine a normal telephone with a small display screen that shows the text of a response from the person you are calling through the use of a relay service. They are ideal for people who can no longer hear telephone conversations clearly, but prefer to speak directly to another person. They can also be used as a regular phone by hearing members of the household.

Two-line voice carry over can also be done with access to a second phone line; one for calling out and one for receiving. It is most often done with a combination of speaking with a telephone and receiving the text of the other person's response on a computer screen.

7. Captioned Telephone

This relatively new relay service is for individuals with any degree of hearing loss who have difficulty hearing phone calls but want to speak for themselves during calls. The specially- equipped telephone is used just like a regular telephone. You dial the number of the person you want to call, and the telephone automatically connects you to that person and a captioning service. As you listen to the person you're calling, captions of what they are saying will appear within seconds on the CapTel's built-in display screen. For incoming calls, people must call a special 800 number before con-

necting with your phone number.

If there are two separate telephone lines in your house, you can connect both to the CapTel phone. This allows other people to call you directly without going through the special 800 number first. The CapTel uses the second telephone line to connect to the captions automatically. If you have vision problems, the CapTel USB allows you to plug the phone into your computer so you can see the captions on your computer screen. You can adjust the size and color of the font and/or background depending on your vision needs. On the newest models of the CapTel you can adjust the size and color of the font and background on the built-in CapTel screen.

Web CapTel is also available, which enables you to use any telephone and a computer to make captioned telephone calls.

8. Video Relay Service

Video Relay Service (VRS) is another recently developed technology. Using a computer or television monitor, broadband access to the Internet, and a video camera, a deaf or hard of hearing individual who uses sign language connects with a sign language interpreter through a VRS provider. The interpreter places the call, signing to the deaf or hard of hearing person and voicing their response to the other individual. Some providers have a feature that makes it possible for you to speak for yourself if you have a second phone line or wireless telephone. This service is especially helpful for young children who know sign language but cannot type fast and have a limited vocabulary, or people with arthritis or an injury that makes it difficult to sign.

9. Web Video and Videophones

More and more consumers are making calls by using the built-in web camera on their computers or installing a computer web camera. Two people who use sign language can converse with each other, and there are also internet sites that allow several people to chat with each other by video at the same time. Web cameras are also a boon for people with hearing loss who benefit from being able to see a person's face for speechreading while they are listening to them by phone or through the audio on their computers.

In addition, several companies have been introducing exciting videophone products. In some other countries cell phones are now regularly being used as videophones and this technology is expected to be available here in the U.S. soon.

10. Internet Protocol (IP) Relay

IP Relay allows you to make calls with a personal computer or wireless device with Internet capability and an Internet account. Several providers have IP Relay websites where you log in, enter the phone number you want to call, and carry on a conversation by typing on your keyboard and reading the response on the computer screen. You can also download software to a wireless device to make IP Relay calls easier.

If You Can't Hear the Ring

If you can't hear the normal ring on your telephone, there are other options. Many of the amplified telephones also can amplify the ring. You can also buy a device that will make the phone ring very loud. This is usually not a good idea unless you live alone and don't have neighbors close by. The other option is to install a signal system that will cause a light to flash in a pattern when the phone rings. You can set this signal system up so that lights flash in several rooms, and some systems can use the same lights to alert you to other sounds like the doorbell by flashing in a different pattern.

Answering Machine Woes—Possible Solutions

Many people talk fast and not very clearly when they leave answering machine messages. This is frustrating for people with hearing loss. But there are some options.

You can use Relay, IP Relay, or Video Relay to call and check your voice answering machine remotely. When you contact any of these relay services, give them your home phone number and tell them you need to check your messages. Give them the remote code to your voice answering machine, and they will type or sign the messages to you.

The CapTel phone has a built in option for captioning an external voice answering machine. Go into the menu, find the Caption External Answering Machine option, and follow the instructions that the CapTel gives you.

Sources of Equipment

Virginia's Technology Assistance Program (TAP)

Through its Technology Assistance Program (TAP) known as Loan to Own (L2O), VDDHH provides certain telephone equipment to Virginia residents who are deaf, hard of hearing, have both hearing and vision disabilities, or have speech disabilities. The actual cost depends on family size and income. Some people qualify for free equipment. For information on what equipment is offered and how to obtain this equipment, contact NVRC.

NVRC also can provide information about resources for those who have difficulty purchasing needed equipment.

Equipment Vendors

NVRC can also provide information about businesses which sell specialized equipment for using the telephone. Contact us for more information.