



Using the Telephone: Equipment and Resources 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 on the job. 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.

Whenever possible, 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 Room 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 - Landline Telephones

Amplified handsets can be used to increase the volume of sound on the phone. They are sold 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 - Landline Telephones

There are several brands of telephones that can modify the sound you hear. All of them have a volume control. Other features may include the ability to adjust the frequency of the sound, jacks to allow hands-free calling with headsets or neckloops, extra loud ringers, lights that flash to alert you to the ringing of the phone, anti-feedback filters, and noise suppressors.

There are now cordless phones that also have these features.

3. Mobile Telephones

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

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Make Use of Your Telecoil (T-Switch)

Some hearing aids and cochlear implants 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.

identified with specific labeling.

Finding a mobile phone that will work well with your hearing loss can take time. You will need to test the mobile 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 mobile 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 mobile phone may still be able to communicate by sending short messages or emails using mobile phones. There are now many apps that can be downloaded to a mobile or smartphone to access Relay Services. 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.

Access Wireless can help you find a Hearing Aid Compatible (HAC) mobile telephone: <http://accesswireless.org/>

4. Teletypewriters (TTYs)

Also known as TDDs or text telephones, these are used by persons who cannot understand speech on regular or amplified phones, or people whose speech is not understandable on a regular telephone. They are available in various sizes ranging

from portables the size of a book to the size of a netbook computer. They consist of a keyboard, a display screen, and acoustic cups. Some have the option of direct-connect with an RJ-11 plug or a jack for a mobile telephone connector.

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, though many have done away with them in favor of using the Relay Service. TTY users can make calls to others who do not have TTYs through the Relay Service.

As more areas of the country switch their telephone infrastructure from analog to digital, the use of TTYs has declined, since they only work on analog telephone lines.

5. 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.

6. Captioned Telephone

This newer 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 a captioning service, then to that person. As you listen to the person you're calling, captions of what they are saying will appear within seconds on the captioned telephone's built-in display screen. For incoming calls on a digital phone line, people must call a special 800 number before connecting with your phone number. For incoming calls on a digital phone line (DSL, cable modem, FiOS), people just call your phone number and the captioned telephone uses the internet connection to connect to the captions.

There are currently three companies that offer captioned telephones.

CapTel

<http://www.captel.com/>

CaptionCall

<https://captioncall.com/>

ClearCaptions

<https://www.clearcaptions.com/>

You can now get captioned phone calls on your mobile or smartphone, or on your home computer.

Web CapTel allows you to use any telephone and a computer or tablet to make captioned telephone calls.

Hamilton WebCapTel

<https://www.hamiltonwebcaptel.com/>

Sprint WebCapTel

<https://sprintcaptel.com/solutions-by-sprint/sprint-webcaptel/>

ClearCaptions

<https://clearcaptions.com/products/web-portal>

8. Video Relay Service

Video Relay Service (VRS) is another newer 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 providing their response in spoken English 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.

11. Apps

As with so many technologies today, there are apps that you can download to your 4G or higher mobile or smartphone that will allow you to access captioned telephone calls or videophone and Video Relay Services on the go. Just set up a free user account and you're ready to connect to family, friends and co-workers.

Captioned Telephone Apps

Hamilton CapTel

<https://hamiltoncaptel.com/mobile-apps-for-smartphones-and-tablets.html>

InnoCaption

<https://www.innocaption.com/>

CaptionCall

<https://captioncall.com/products/mobile-app>

ClearCaptions

<https://clearcaptions.com/mobile-phone/>

Video Relay Service Apps

Convo

<https://www.convorelay.com/>

Purple

<https://www.purplevrs.com/p3mobile>

Sorenson

<https://www.sorenson.com/products/ntouchmobile/>

ZVRS

<https://www.zvrs.com/services/products/z5-mobile/>

Telephone-Based Relay Services: Just Dial 711

Virginia Relay is one of the nation's oldest and most experienced relay services. You pay for this service on your monthly telephone bills. All telephone-based relay calls by deaf, hard of hearing, and hearing individuals can be made through a single three-digit number: 711. Internet-based calls for Video Relay Services and IP Relay are handled differently.

Sources of Equipment

Virginia's Technology Assistance Program (TAP)

Through its Technology Assistance Program (TAP), The Virginia Department for the Deaf and Hard of Hearing (VDDHH) provides certain telephone equipment to Virginia residents who are deaf, hard of hearing, DeafBlind, 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.