

## Assistive Technology for Individuals who are Deaf and Hard of Hearing

In New Jersey, there are an estimated 720,000 individuals who are deaf or hard of hearing. In general, the term "deaf" refers to those who are unable to hear well enough to rely on their hearing and use it as a means of processing information. The term "hard of hearing" pertains to those who have some hearing, are often able to use it for communication purposes, and who feel reasonably comfortable doing so. Ordinarily, a hard of hearing person may have a mild-to-moderate hearing loss.

Assistive technology can provide greater access, increased independence, and maximize the quality of life for many individuals who are deaf or hard of hearing. This bulletin illustrates a variety of assistive technologies and identifies available resources to access these assistive technologies.

### Telecommunication Devices & Services

**TTY, TDD, and TT** are abbreviations for Telecommunication Devices for the Deaf and are commonly used to denote services (generically called text telephones) that enable the typing of telephone conversations. There are approximately 25 million TTY users in the United States alone. A TTY/TDD is a device very similar to a typewriter that has a small readout, and is designed for use by individuals who are deaf, hard of hearing, or speech impaired. The TTY/TDD connects to the telephone line and can be used to send text over telephone lines.

**Amplified telephones** help individuals who have problems hearing on the telephone, and can increase the volume on the telephone as much as 30 decibels. Many amplified telephones also have a feature allowing the user to adjust the volume of the ringer to their personal liking. Older telephones that do not have amplifiers built in can typically be adapted with an add-on device called a **telephone amplifier**.

**AT&T Telecommunications Relay Services (TRS)** assists the TTY/TDD or standard telephone user to communicate. A Communications Assistant (CA) relays the TTY user's message, word for word, to the hearing person on the other end of the line. The CA then types the hearing person's response back to the TTY user. There is no additional charge to access AT&T Relay Services, and it can be accessed by dialing 711.

### Listening Systems & Devices

**Assistive listening systems** are amplification or transmission devices such as Induction Loop (IL) systems, Frequency Modulated (FM) radio systems and Infrared (IR) systems designed to enhance the hearing of individuals in group settings. The systems "bridge" the space between the actual sound source and the listener, and improve the ability to hear when there is background noise. These systems can be used with a television set, in small gatherings, in class or meeting rooms, and in venues like auditoriums, theatres and places of worship.

An **assistive listening device**, or **ALD**, is a personal device that transmits or amplifies sound (not including hearing aids), and may include an amplified telephone, a telephone amplifier, FM, infrared, or audioloop systems.

Both assistive listening systems and assistive listening devices amplify sound by tapping directly into the source of the sound through the use of a microphone and clarifying sound by decreasing or eliminating circulating noise. But, the primary function of the ALS or ALD is to make the sound louder and give volume control to the individual.

## Signaling and Alerting Devices

Signaling and alerting devices react to auditory sounds and signals by using flashing lights, vibrating a small transmitter unit, or increasing the volume of an existing bell. These signaling systems can be designed to apprise individuals of different sounds in their home. Assistive devices are available that flash or vibrate to let one know that the phone is ringing (**Phone Flasher**), or indicate someone is knocking on the door (**Door Knocker**). The Door Knocker can also be set-up to recognize that the doorbell is ringing. Other assistive devices flash or vibrate to indicate that a baby is crying (**Baby Crier**), or signal that it is time to wake up. Audible and visual smoke detectors are designed to provide a reliable early warning for any presence of smoke. Some of these assistive devices utilize radio waves to send a coded signal to a small receiver that the user can carry with them.

## Demonstration Center in New Jersey

The Division of the Deaf and Hard of Hearing (DDHH) operates an assistive device demonstration center located in New Brunswick at the Joseph Kohn Rehabilitation Center. Visitors to the Kohn Center may examine assistive devices in their inventory, including:

- Sonic Alert Telephone Signaler TR75
- Krown Pocket Speak & Read VCO (Voice Carry Over for phone TTY)
- WIR 950 Listening System from Harris Communications
- Ameriphone Wake Assure Alarm Clock
- NuTone Door Signaler with strobe
- Wireless Chime Pager from Safeguard Marketing
- Shake Up Smoke Detector
- AT&T Portable Telephone Amplifier

The Kohn Center does not sell equipment, but visitors may make purchases from a selection of several catalogs on display. Assistance is available by appointment to help individuals learn how to use the assistive devices. Contact DDHH at 1-800-792-8339 (V/TTY) to schedule an appointment or to request more information.

For additional information on AT devices and services for people who are deaf or hard of hearing, please contact ATAC of DRNJ. The Assistive Technology Advocacy Center (ATAC), a program of Disability Rights New Jersey provides information and referral, outreach and education, technical assistance and legal and non-legal advocacy in the area of assistive technology. Call 1-800-DIALT EC in New Jersey, or access our website at <http://www.drnj.org>.

### The Assistive Technology Advocacy Center (ATAC) of DRNJ

210 South Broad Street, Third Floor, Trenton, NJ 08608

For voice assistance and information, please call 1-800-922-7233. TTY users may dial (609) 633-7106, or use the NJ Relay, 711 to reach the 800# above. Visit us on the web at [www.drnj.org](http://www.drnj.org)

The 56 statewide Assistive Technology (AT) Programs form a national network of statewide assistive technology (AT) programs. Information contained in this brochure represents the accumulation of knowledge of this national network. The AT programs receive funding from the U.S. Department of Education, Rehabilitation Services Administration (RSA) to implement the Assistive Technology Act of 1998, as amended. No official endorsement by the U.S. Department of Education of any product, commodity, service or enterprise mentioned in this publication is intended or should be inferred.

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Trenton, New Jersey 08608

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