

## Hearing-Impaired Callers

The National Institute on Deafness and Other Communication Disorders (NIDCD) reports over 28 million Americans are affected by varying degrees of hearing impairment and an additional 30 million are exposed daily to dangerous noise levels. In July 1998 the US Department of Justice released a Document entitled Americans with Disabilities Act: (ADA) Access for 9-1-1 And Telephone Emergency Services that mandates TTY users receive direct and equal access to 9-1-1 services. A TTY is a device with a keyboard that is used by hearing impaired and speech impaired people to communicate over a telephone.

Compliance to the ADA direct access mandate requires public safety answering points to be able to receive TTY calls without the aid of an outside relay service or third-party services. Equal access to 9-1-1 requires the emergency services provided for TTY users to be as effective as services provided voice callers in regards to response time, quality, hours of operation, and all other offered features such as automatic number identification (ANI), and automatic location identification (ALI).

It has been proven that delays are experienced where multiple call takers share a single TTY unit; therefore the ADA mandates communication centers to provide every call-taker position with its own TTY equipment. Time is a critical factor in processing any call for emergency services and is even more crucial when handling calls from the hearing impaired or speech impaired. Individuals that experience difficulties when communicating with others may deplete all their own resources in an attempt to solve their problem before calling for help. The ADA 9-1-1 Access document states that many individuals in the hearing impaired community lack confidence in their accessibility of 9-1-1 services. A call taker who is uncomfortable with TTY equipment and or lacks the skills needed to effectively communicate with hearing or speech impaired callers can compound the time spent to process the call.

There are three types of TTY calls a call taker may receive:

- Recorded voice announcement
- TTY caller transmits audible tones
- Silent, open line call

When receiving a recorded voice announcement TTY the call taker may hear a recorded message announcing "Hearing Impaired Caller, Use TTY". The second TTY

call type requires callers to press keys that emit audible tones to alert the call taker to a pending TTY call. The call taker must be able to switch back and forth between voice and TTY modes during the same call to query every silent, open line call by voice first and then by TTY. Requiring TTY callers to emit audible tones for recognition violates the ADA mandate.

Voice carryover (VCO) features require the same capabilities and enables the hearing impaired to speak directly to the call taker and receive the call taker's response through their TTY. Individuals who lose their hearing later in life may prefer the VCO to the traditional TTY. Hearing carryover (HCO) allows individuals with speech-impairments to type their words and hear the call takers response through their handset.

TTY equipment maintenance and testing must occur at least as often as the voice telephones. If voice phones are tested everyday, then TTY equipment must be tested every day. Back up equipment and plans must be established in case of malfunctions or power failures.

The ADA suggests unannounced random testing on both silent, open line calls and calls where the caller transmits audible tones. Minimum documentation of testing should include:

- Date and time of test call
- Identification of call taker and call-taking position
- Type of call tested (silent or transmitted tones)
- Call taker response and content of TTY
- Number of rings and time lapsed from the initial call until the call taker responded by TTY
- Whether the call was handled according to the public safety answering points standard operating procedures

Training requirements are not specified by the ADA however they do provide the following recommendations for comprehensive training including practical instruction and hands on experience on the following topics:

- Training should be mandatory and ongoing
- Minimum refresher training should be offered every six months.
- Basic operation of TTY and back up equipment
- Review of ADA requirements including Section 504 of the Rehabilitation Act for telephone emergency service providers
- Communication issues when processing calls from hearing impaired or speech impaired callers
- Review of American Sign Language, and acceptable TTY abbreviation usage
- Review of agency specific policy and procedures

The ADA requirements are not going away and the sooner your agency becomes compliant, the sooner you can feel confident that your agency is delivering the best possible services to those in need.

**Resources:**

US Department of Justice, Access for 9-1-1 and Telephone Emergency Services  
[www.ada.gov](http://www.ada.gov)

Public Safety Telecommunicator 1, Sixth Edition, APCO Institute 2005,

National Institute on Deafness and Other Communication Disorders (NIDCD),  
[www.nidcd.nih.gov](http://www.nidcd.nih.gov)

## Quiz

### **CDE Article – Hearing-Impaired Callers**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Agency: \_\_\_\_\_

Address: \_\_\_\_\_

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\_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

1. Telecommunicators must receive refresher training at a minimum of every six months.
  - a. True
  - b. False
  
2. Recorded voice announcement, silent open line and relay service calls are three types of TTY calls.
  - a. True
  - b. False
  
3. The American with Disability Act requires hearing impaired and speech impaired individuals receive direct and equal access to 9-1-1 services.
  - a. True
  - b. False
  
4. TTY equipment testing must occur as least as often as voice telephones.
  - a. True
  - b. False

5. The National Institute on Deafness and Other Communication Disorders reports more than 50 million Americans suffer from hearing impairments.
  - a. True
  - b. False
  
6. Every silent, open line call must be queried first by voice and then by TTY.
  - a. True
  - b. False
  
7. Hearing impaired individuals have confidence in 9-1-1 accessibility.
  - a. True
  - b. False
  
8. Equal access requires the emergency services provided for TTY users to be as effective as services provided voice callers.
  - a. True
  - b. False
  
9. The ADA suggest training include review of Section 504 of the Rehabilitation Act for telephone emergency service providers.
  - a. True
  - b. False
  
10. Direct access requires public safety answering points to be able to receive TTY calls without the aid of an outside relay service or third-party service.
  - a. True
  - b. False