

What Can I Say? Assistive Technology for Speech Impairments

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Most of us take speaking for granted; sometimes too much so! But what if you couldn't talk? How would you order food in a restaurant, talk to friends on the phone, tell your granddaughter that you loved her piano recital, describe symptoms to your doctor, complain about poor customer service at the car repair shop? Unfortunately, a surprising number of older individuals do lose the ability to speak. Stroke, cancers of the brain and throat, Parkinson's disease, amyotrophic lateral sclerosis (more commonly known as Lou Gehrig's disease) and other similar conditions can impair a person's ability to communicate through speech. Speech impairments can range from mild to severe; from having difficulty articulating clearly to being unable to produce any type of sound. Depending on the medical condition associated with speech loss, the person may have other related problems such as swallowing difficulties or trouble understanding written and/or spoken language.

While it has been said that silence is golden, the "golden years" lose their luster if you cannot talk or talk clearly enough for other people to understand you. It is important to understand that losing the ability to speak is NOT the same as having nothing to say. Remaining silent doesn't have to be an option! Assistive technology devices that help people to speak are called augmentative communication or speech generating devices.

Like other types of assistive technology, augmentative communication devices range from simple to complex. When a person is temporarily unable to speak especially in hospital settings, providing markers and small dry erase boards, pad/pencils, alphabet, word, or picture and symbol boards can help the individual express basic needs and reduce frustration.

For long term speech loss, there are two main types of electronic devices that produce speech – digitized and synthesized. Digitized devices speak messages that have been prerecorded by someone else and can be easily changed and re-recorded. The messages are usually represented by symbols or pictures. The person looks at the choices and touches the picture or symbol that contains the desired message. For example, a picture of a television might represent the message that says 'please turn on the TV or please turn up the sound on the TV'. Depending on the device, the number of messages can range from a single one to hundreds.

Synthesized devices are more complex and allow the person to have a "voice" by converting text into speech. For example, if the person types 'I would like to order a tuna fish sandwich on toast with French fries and iced tea', the communication device will then say the message out loud. Synthesized devices allow for spontaneous, self-directed communication. These types of communication aids are generally more costly and have a wider range of features than digitized devices. Many come as dedicated units for speech purposes only, but others are actually laptop computers with specialized communication software.

What happens if in addition to loss of speech, the person is also unable to use his or her hands to type or otherwise select the desired message? Many devices offer a variety of options that

provide alternative ways to operate the device through the use of special switches that can be controlled by head, eye or even foot movements.

When exploring speech devices, it is important to work with a speech language pathologist experienced in the area of augmentative communication. An occupational or physical therapist may also need to be part of the team if the person will have difficulty activating and carrying the device. Private health insurance plans, Medicaid (AHCCCS in Arizona) and Medicare may be possible funding sources as speech generating devices are often considered to be medically necessary.

Remember, if you can't use your own voice, there may be technology that can speak for you! For more information about this type of assistive technology, contact our office as well as the following national resources:

- American Speech-Language-hearing Association, 800-638-8255
<http://www.asha.org/public/speech/disorders/Augmentative-and-Alternative.htm>
- AAC Institute, 814-392-6625
<http://www.aacinstitute.org> (new window)
- Amyotrophic Lateral Sclerosis Association 866-350-2572 (Arizona Chapter)
<http://www.alsa.org> (new window)
- Communication Aid Manufacture Association, 800-441-2262
<http://www.aacproducts.org/> (new window)
- Rehabilitation Engineering Research Center on Communication Enhancement
<http://www.aac-rerc.com> (new window)

This is the 11th in a series of articles designed to educate people about assistive technology and its benefits to older Arizonans. For more information, contact Randy Collins, Training and Outreach Coordinator for the Arizona Technology Access Program (AzTAP). Randy can be reached at 602.728.9533 Voice, 602.728.9536 TTY or toll free at 800.477.9921 Voice/TTY. The AzTAP website is www.nau.edu/ihd/aztap.

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DES, Aging and Adult Administration: Aging, if it's not your issue...it will be.