

## Why AAC?

Some parents are worried that providing an AAC system to their child will prohibit the development of verbal speech. Research has repeatedly shown that this is not the case. In fact, the opposite is often true, as providing an active means of communication tends to improve verbal speech.

Reaching the goal of independent, spontaneous communication is a process that may begin with:

1. Learning the meaning of one word
2. Increasing single word vocabulary
3. Then combining words together to make phrases and sentences

However, when one begins to learn how to communicate with AAC, there must be a vision of the end goal so you know what you're working towards – and that you have a path to get there.

***“Presume competence and provide a system that will allow growth to independent complex communication”***

## Why Use a Voice Output Communication Device?

For 50 years, voice output devices have been used to help individuals with developmental and acquired disabilities to communicate successfully, as these devices offer tremendous promise in helping nonverbal individuals with autism overcome their unique communication barriers.

The auditory output provides one more sensory feedback to help the child develop his receptive and expressive language skills.

Other advantages of voice-output communication devices include:

### **Making Neurological Connections**

We learn new motor skills by integrating sensory input related to the task. In natural speech, neurologically, the facial movement used to produce a sound (articulation) is paired with the sound produced.

Since a movement to produce a particular sound/word is always the same, after a little practice, we no longer have to think about how to move our mouths to say what we want to say. Eventually, producing speech is effortless.

However, when this process is interrupted, learning is difficult. Verbal speech becomes complicated. Neurological issues associated with autism and other developmental disabilities (i.e. sensory processing disorders, sensory integration issues, distractibility and apraxia) may interfere with any or all aspects of this motor learning process.

Effective AAC methods:

- Simplify the sensory processing and motor planning involved in communicating
- Provide consistent auditory output matched with a consistent motor plan

An AAC method that simplifies the sensory processing and motor planning involved in communicating and provides consistent auditory output matched with a consistent motor plan, allows the child to complete the motor learning process.

Instead of the mouth producing the sound, the hand is producing the sound. An individual becomes more skilled with each opportunity to complete the motor learning process. There is evidence suggesting that pairing a consistent motor movement with voice output may help the child with auditory processing of spoken language.

### **Clarity of Communication**

The key advantage to voice output devices is that they allow the individual to “talk,” which lets others understand exactly what is being expressed. Methods of AAC that don’t have voice output may be difficult for the untrained to understand, increasing frustration for both the AAC user and others.

Auditory output also provides feedback to the device user so he can determine if what he said was actually what he meant to say.

### **Learning through Exploration**

Expressive language can lead to improved receptive language.

Babies start attaching meaning to the sounds that they make through our responses to their babbling. When they babble “mama” and their mother responds with claps, smiles and kisses, they slowly start to learn what “mama” means.

The same process can occur with an AAC device. When the child says a word and we provide a response, he can start attaching meaning to the spoken word. Even when no communication partner is present, the child has the ability to learn words through the auditory output.

### **Increased Verbal Speech**

Studies and anecdotal reports indicate that AAC not only enhances communication effectiveness but also speech production and intelligibility, particularly if the AAC method has voice output.

There are several possible reasons:

- A speech output device may improve verbal speech as it allows the nonverbal child to become an active participant in the learning process.
- Because synthesized speech lacks the prosodic and intonation variations of natural speech, the consistent auditory signal might be easier for the autistic child to recognize.
- Having the ability to combine sounds and words together in different ways helps improve phonological awareness.
- Access to a speech output device allows the individual to independently determine what they are going to say and hear a verbal model for the word.

### **Development of Literacy**

Before literacy can develop, the individual must have a strong language foundation.

Language foundations for nonverbal individuals are enhanced with the use of voice output communication devices. AAC devices that offer pairing of text with the graphic representation of a word and/or a text display of the spoken words provide an opportunity for developing word recognition.

The text can also strengthen the device user’s spelling skills.