



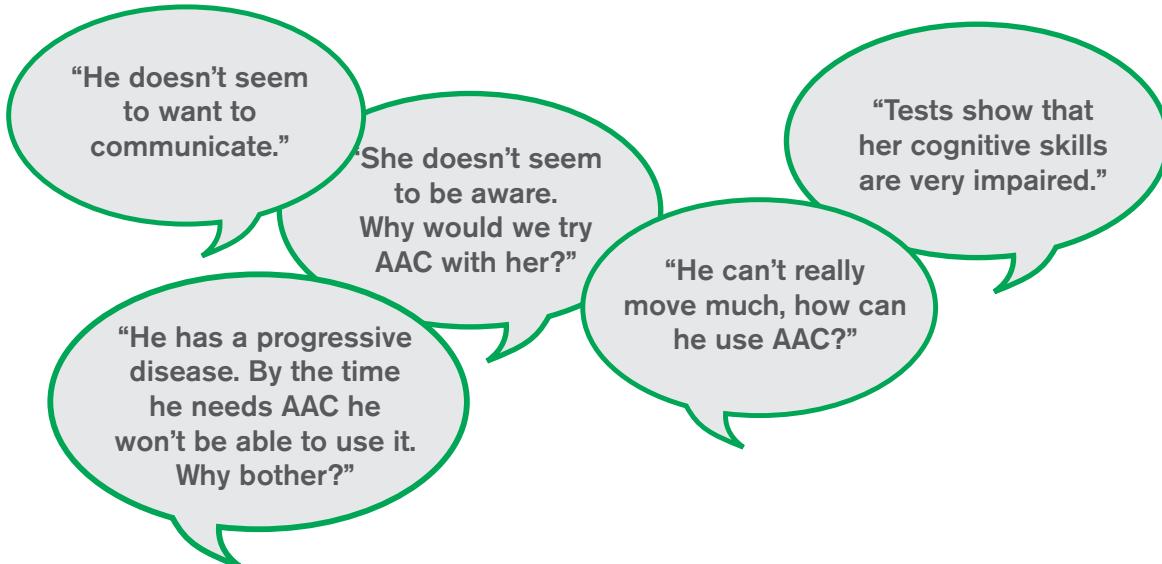
# AAC MYTHS REVEALED

## MYTH:

An individual can be too impaired to benefit from AAC.

## TRUE OR FALSE:

False



The comments above imply that an individual is too impaired (or "too low") to use AAC—or at least to use more than a very simple form of AAC. Statements, actually assumptions, like these result in AAC not being provided at all, being delayed, or being limited. What happens when an individual has limited (or no) access to functional communication for a period of time. We see:

- Increased frustration with communication on the part of the individual and their communication partners
- Depression and/or withdrawal from social situations
- Resistance to AAC when it is finally presented

### Why do we risk these possible outcomes?

Let's examine three possible reasons:

- Prerequisite skills for AAC
- Expectations
- Prerequisite skills for communication devices

### Prerequisite Skills for AAC

Prerequisite skills related to AAC come in several different areas. Let's look at cognitive prerequisites first.

**\*Definition:** Augmentative and alternative communication (AAC) refers to communication tools and techniques used individually or in combination to supplement communication for people who have difficulty communicating through speech or writing. AAC includes unaided communication techniques (e.g., pointing, gestures), low technology aids (e.g., communication books and boards) and high technology communication devices (e.g., devices and computers that have voice output also known as speech generating devices or SGDs).

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The belief that individuals must have certain cognitive skills before being able to use AAC likely comes from studying the way speaking children learn language. For example, children typically demonstrate the following cognitive skills before they begin to speak: causality or cause/effect (understanding that one event is a consequence of another), means-end (planning steps to reach a goal), and object permanence (objects continue to exist even if they are out of sight and cannot be perceived by hearing or touch), among others. Many individuals extend this relationship to imply that children, or even adults, cannot use AAC to speak before they have the same cognitive skills.

Kangas & Lloyd (1988) reviewed a variety of early language studies and found:

- Cognitive development and the emergence of speech and language are related. Their relationship, however, was not causal (i.e., cognitive development did not lead to the emergence of speech).
- At times, language skills appeared before the expected cognitive skills had been developed.

These statements alone cast considerable doubt on our choice to withhold or delay provision of AAC on the basis that certain cognitive skills must appear first. Kangas & Lloyd continue by noting that "*communication experience can also be a vehicle for expanding cognitive skills.*"

### **What about prerequisites specific to adults?**

Not all assumed prerequisites are based on the stages of child speech and language development. While these prerequisites may not actually be spoken by the individuals who hold them, they result in access to AAC not being provided at all, being delayed, or being limited.

For example, some SLPs may have a prerequisite of exhausting all other options before introducing AAC. This prerequisite comes from the desire to restore as much natural speech and language as possible. In reality, however, "*AAC can be an essential tool for treatment as well as a mechanism to bridge the individual into functional communication. It is important to consider AAC as a part of treatment rather than an alternative or last resort*" (Fager et al., 2007)

Another prerequisite held by some adults with complex communication needs, family members, caregivers, and/or therapists is that natural speech must be absent before introducing AAC. Too frequently, individuals with amyotrophic lateral sclerosis (ALS) do not receive an assessment for AAC until their speech is completely nonfunctional. This means there will be a period of time when they do not have a functional way to communicate. To prevent this, it is recommended (Ball et al., 2002) that AAC evaluation is conducted when the person with ALS's speaking rate drops to 60% of normal (which is 190-200 words/minute).

Individuals with some speech may not be considered for AAC simply because they have some speech. Many times, however, the few words used by someone with apraxia of speech are too limited to really meet their needs. Or, the words spoken by someone with Parkinson's Disease may be understood only by one or two familiar communication partners—and then only sometimes. Because they have some functional speech, they are precluded from the support that AAC could provide. See "AAC Myths Revealed—Some Speech Means AAC is not Needed" on DynaVox's Implementation Toolkit for more information.

### **Expectations**

Another reason access to AAC is sometimes limited, delayed, or not provided at all stems from expectations.

### **What kind of expectations?**

- Recovery following a stroke or brain injury primarily occurs in a short window of time. This can result in waiting until the end of the window to introduce AAC rather than using it as part of treatment from the beginning. It can also cause people to question whether it is appropriate to introduce AAC long after the stroke or brain injury.
- Individuals must be able to use AAC independently for it to be an appropriate recommendation. This view ignores the fact that none of us communicates independently. Communication does not happen in a vacuum. Even the most fluent speaker needs to be helped to recall a word occasionally, is asked questions to clarify a statement or is cued to remember a detail. We rely on others to collaborate with us to establish meaning (co-construction) and to provide assistance/support when needed. The same is true for those with cognitive and language impairments. In fact, co-construction for individuals with aphasia is supported by research. "One strategy for minimizing communication breakdowns is for people with aphasia and their communication partners to establish shared communication spaces for message co-construction...the key feature is that interactants assume joint responsibility for formulating, expressing, and confirming communicative intents" (Hux et al., 2010). Kagan's (1998) protocol for supported communication for people with aphasia is consistent with message co-construction.
- Individuals must have a consistent way of accessing AAC (i.e., making the device speak a message) before it can be introduced. As with the idea that "communication experience can also be a vehicle for expanding cognitive skills" (Kangas & Lloyd, 1988) discussed above, communication experience can be a vehicle for expanding motor skills or control. Some individuals need more time to understand and/or learn the motor patterns needed to operate a communication device, whether it is by eye gaze, pointing, or scanning. Other individuals continue to make motoric improvements over time. While we want to have some idea that consistent access can be developed, it does not need to be perfected before the use of AAC is initiated.

- Communication devices take a long time to acquire. This expectation specifically impacts individuals with ALS because time is of the essence. Clinicians or physicians may decide that there is no reason to consider a communication device that can take months to receive. Fortunately, the process by which funding is obtained does not take as long as many people expect, especially for the most likely funding sources for people with ALS--Medicare or private insurance.

### How can we overcome the variety of expectations that impact access to AAC?

The Life Participation Approach to Aphasia (LPAA; Chapey et al, 2000) provides a general framework that focuses on re-engagement in life. Using this approach, people with aphasia and their family members identify important life goals. For example, a real-life goal shortly after a stroke might be effective communication with medical professionals. A real-life goal for the same individual later in the recovery process might be to return to a volunteer position. During speech-language therapy, all participants work together on the components necessary to meet these life goals. These components could include learning scripts for specific interactions with medical professionals, strengthen reading skills to locate names in an employee directory, and using a communication device to communicate daily needs/concerns with nursing staff and caregivers.

Basically, the LPAA acknowledges that people with aphasia want to reengage in life in very specific and personal ways. Speech-language therapy focuses on the skills and tools needed to make these happen. Expectations like the ones above must be set aside in the path to meeting life goals and reengaging in important activities.

While the LPAA was developed specifically for people with aphasia, it certainly can also apply to people with different diagnoses. After all, AAC allows individuals to *"participate in life situations and to stay connected to the world around them"* (Beukelman, Garrett & Yorkston, 2007).

#### Prerequisite skills for communication devices

Earlier we discussed, and dismissed, the idea of prerequisite skills for access to any kind of AAC. In this section we will address a separate set of prerequisite skills specifically for the use of high tech communication devices.

There are those who would suggest that high tech communication devices are inappropriate for individuals who do not demonstrate the general AAC prerequisites discussed above and also skills such as understanding of symbols, categorization, ability to navigate from page to page, adequate memory, etc.

The belief in such prerequisites specifically for high tech communication devices may be based in two issues cited by Romski & Sevcik (2005):

1. High-tech communication devices are, by definition, complex. They are capable of storing thousands of messages, symbols, and photographs to be used in a variety of different ways; accessing the internet; and communicating via email. Fortunately, individuals with complex communication needs do not need to experience any of that complexity. These devices can be designed with an interface (i.e., screen layout, organization of symbols) that is both intuitive and easy to teach. As a result, today's communication devices do not require a "sophisticated set of cognitive skills" (Romsky & Sevcik, 2005).

Concerns with complexity impacts therapists and family members as well. When they have appropriate tools to learn about the communication device and also learn how to teach someone to use the new device the level of complexity and frustration can be reduced.

2. High-tech communication devices are expensive. To avoid making an expensive recommendation, some clinicians will choose to use low tech AAC first until the individual demonstrates the desired skills. However, family members rarely pay for a high-tech communication device themselves. Instead, Medicare, Medicaid, or private insurance cover most of the cost for communication devices (when one is appropriate). How can we put a price on communication?

A third issue has to do with independence.

3. High tech communication devices should not be recommended for individuals who need help navigating through their device, understanding all of the symbols, or putting words together in sentences. As we discussed above, however, we rely all on others to collaborate with us to establish meaning (co-construction) and to provide assistance/support when needed. If this is true for verbal adults why would we require independent communication for our individuals with complex communication needs?

In addition, some researchers and clinicians have found that the specific features communication devices such as voice output to gain attention or serve as a model for speech, representation and organization of vocabulary, ability to add new vocabulary easily, creating and storing messages ahead of when they are needed, similarity to electronic screen media (e.g., TV, gaming systems), ability to incorporate video and audio, and variety of selection methods\* and feedback options (e.g., audio and visual) may actually match the strengths and needs of individuals of all ability levels better than low tech communication boards and books.

**\*Definition:** Selection method—means of physically accessing keys, buttons, cells or areas, selection is often made using fingers but can be completed using a variety of body parts or equipment (e.g., pointer, mouse, joystick, switch)

Multimodal communication system—use of a variety of modes to communicate on their own and in conjunction with one another including speech, vocalizations, facial expression, body language, gestures, signs, pointing, light tech AAC, high tech AAC. Those of us who are able to speak use a multimodal communication system when we interact.

## AAC for All Who Need It

In this resource, we have explored the outcome of statements that assume an individual is too impaired to use AAC. These assumptions limit, delay or withhold the provision of AAC. Instead, AAC should be considered based on individual strengths and needs and the complementary features of AAC. Let us now keep looking to the truth about cognitive skills and AAC as stated so well by Mirenda (1993):

*"...breathing is the only prerequisite that is relevant to communication. Breathing equals life, and life equals communication. It is that simple."*

*"...we realize that everyone can communicate, and, in fact, everyone does communicate in some way, somehow, if there is something important to say. In other words, communication is neither a right nor something that has to be learned—it is an inevitability: people cannot not communicate."*

Let's work to get AAC into the hands of everyone who could benefit from it, regardless of their diagnosis or level of impairment.

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