Does AAC impede natural speech?—and other fears

Even when a child's communication impairments are interfering with his or her cognitive, social and emotional development, some parents and practitioners are reluctant to introduce AAC. This is very understandable since AAC-based communication is frequently viewed as the solution of last resort, condemning a child to a lifetime of abnormal and limited communication. It is considered the end of all hope of natural speech, to be used only after years of failed speech therapy. (Berry, 1987; Mirenda & Schuler, 1988).

The fact is that AAC does not represent this gloomy future. Many adult users become extremely proficient with their AAC, and are able to communicate anything they want to, in any circumstance they find themselves.

Nor does it mean the end of any hope of speech development. Children are frequently provided with communication programs in which speech is a major component. (See Multimodal communication.) In fact, since natural speech is the ideal mode of communication in many circumstances, it behooves a young child to continue with speech therapy along with AAC in order to develop his or her speaking ability to its fullest potential. In fact, numerous studies have found that the introduction of AAC frequently has a positive affect on speech; children who are given AAC often develop speech faster than they would have otherwise (Bodine & Beukelman, 1991; Van Tatenhove, 1987).

On the other hand, while it may be appropriate to continue to focus on speech, it is unfair to leave a child with little or no means of communicating effectively while undergoing years of speech therapy. A child who is unable to communicate effectively is unable to participate meaningfully in many activities, and is at great risk for delays in cognitive, social and emotional development. (See When does a child need AAC?) Thus, it is crucial that he or she be provided with at least some ability to communicate that offers some immediate control over people and the environment, and can be expanded or modified as necessary to meet the needs of the future.

The following table shows the most common fears and myths regarding the use of AAC, as well as research that refutes such concerns, and practical solutions that directly address these issues.

Common fears and myths	What the facts are	Practical solutions
AAC should be introduced only after giving up all hope of natural speech (Berry, 1987; Silverman, 1980).	It is virtually impossible to predict the future development of speech in a young child (Beukelman & Mirenda, 1992). Children with severe communication deficits who receive only speech therapy often endure years of being without an effective means of communication. A child who is not able to communicate effectively is at great risk for cognitive, social, emotional and behavioral problems (Berry, 1987; Silverman, 1980).	Speech therapy can be offered in conjunction with AAC interventions. The degree to which emphasis is placed on the development of speech versus AAC should be based on periodic reevaluations which assess the child's communicative ability in various activities and routines that are typical for a child that age (Beukelman & Mirenda, 1992).
The introduction of AAC reduces motivation to work on speech (Beukelman & Mirenda, 1992; Silverman, 1980; Van Tatenhove, 1987).	The introduction of AAC correlates with the improvement of natural speech—-even in situations in which no speech therapy has been given (Berry, 1987; Daniels, 1994; Romski & Sevcik, 1993; Konstantareas, 1984; Silverman, 1980). Studies have shown that even normally	Little research has been conducted to determine if certain types of AAC are more likely to facilitate the development of speech. However, a simultaneous communication approach, in which speech is utilized by the adult alongside AAC, seems

	developing children who are communicated with in both sign language and speech during infancy appear to begin to communicate (initially with signs) and develop spoken language at a much younger age than would otherwise have been expected (Holmes & Holmes, 1980).(See Simultaneous communication.)	likely to assist in speech comprehension and production (Beukelman & Mirenda, 1992).
Common fears and myths	**What the facts are**	**Practical solutions**
Whenever present, even though very limited, speech should always be the primary means of communication (Silverman, 1980).	Children who are unable to communicate adequately are at risk for behavior problems, learned helplessness, academic difficulties, and social failure. (See When does a child need AAC?) Children who use AAC have shown improvements in behavior, attention, independence, self-confidence, class participation, academic progress and social interaction (Abrahamsen, Romski, & Sevcik, 1989; Silverman, 1980; Van Tatenhove, 1987).	An assessment should be conducted to determine the environments, activities and people with which speech can serve as the principle means of communication. Usually it is family and close friends who are able to understand speech that has limited intelligibility. Focusing on the use of speech in these situations can occur while AAC continues to be emphasized in other settings. Periodic reevaluations can determine whether the child is continuing to participate as effectively, efficiently and meaningfully as possible in all activities and environments.
A young child is not ready for AAC. (Beukelman & Mirenda, 1992; Silverman, 1980; Van Tatenhove, 1987).	There are no known cognitive or other prerequisites that are necessary for a child to use AAC. (Kangas & Lloyd, 1988). (See A historical perspective on AAC.) Even infants are known to engage in purposeful, communicative behavior well before the development of language. These early exchanges are very important in that they form the basis for later formal, symbolic communication (Reichle, York, & Sigafoos, 1991). (See Normal speech and language development.)	AAC programs must be individualized, age-appropriate, and developmentally appropriate. For young children this often means play-based interventions that focus on the development of communication-related skills, intentional communication, or basic functional communication, such as requesting and rejecting (Beukelman & Mirenda, 1992).
A child does not require AAC until school-age (Beukelman & Mirenda, 1992).	AAC helps a child make the transition into academic and community settings (Van Tatenhove, 1987).	Ideally, children should have already attained a measure of communicative proficiency prior to entering kindergarten. It is difficult enough for a child with disabilities to adjust to a new environment, curriculum and social scene without simultaneously having to learn AAC for the first time. Furthermore, by the first grade, many children will require a writing system as well, such as a computer (Beukelman & Mirenda, 1992).

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A child with severe cognitive deficits cannot learn to use an AAC system (Kangas & Lloyd, 1988). A child must exhibit certain specific cognitive prerequisites before being able to learn to learn to use AAC (Kangas & Lloyd, 1988).	Children with severe cognitive deficits are capable of learning and benefiting from AAC (Beukelman & Mirenda, 1992; Romski & Sevcik, 1993; Kangas & Lloyd, 1988; Silverman, 1980). It is impossible to accurately predict a child's abiltiy to learn AAC (Beukelman & Mirenda, 1992; Bodine & Beukelman, 1991).	AAC interventions must be individualized to take into account the strengths and abilities, and to meet the needs of the child for whom it is being designed. This may mean starting out teaching intentional communication skills and basic communicative functions, and using nonsymbolic and/or self-developed, idiosyncratic means of communicating (Beukelman & Mirenda, 1992; Reichle, 1997). (See The first goal: Intentional communication.) All individuals, including children with severe cognitive impairments, have the right to be given opportunities to communicate by learning communication skills that are effective almost immediately, offer some control over the environment, and are age-appropriate (Beukelman & Mirenda, 1992; Reichle, York, & Sigafoos, 1991; Silverman, 1980).
AAC makes a child look abnormal and retarded (Silverman, 1980).	Acceptance of an AAC-user by peers increases significantly with full inclusion and active participation in regular school-related activities. Among young children, acceptance appears not to be related to the type of AAC (e.g. voice output communication device versus sign language versus communication board) (Beck & Dennis, 1996; Blockberger, Armstrong, O'Connor, & Freeman, 1993). In the long run, a child is at greater risk of being judged retarded when he or she does not have the ability to adequately express him- or herself. Teachers and parents often judge a child with communication impairments as socially and cognitively less capable than their peers. This results in lowered academic expectations and, frequently, decreased academic achievement (Rice, 1993). AAC may help in reducing the discrepancy, both real and imagined, between the child's actual and perceived cognitive and social capabilities.	AAC users should be educated in regular classrooms alongside their peers to minimize attitudinal barriers. In addition, teachers, students and other significant persons who are to be involved with the child must be informed of the nature of the communication disability, and any discrepancies between the child's language and cognitive abilities. (It is important, however, to keep such information-dispensing sessions separate from typical school activities in which students participate since the latter are opportunities to de-emphasize differences between the AAC user and his or her peers.) In addition, keeping the child's AAC vocabulary up to date, age-appropriate and relevant to the child's own interests go a long way towards facilitating acceptance by peers and others. (See Vocabulary selection strategies.)