

# Augmentative and Alternative Communication





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Updated and edited by Kayla Chapman - Speech Pathologist, Therapy and Professional Services and Sharon Ryder - Speech Pathologist, Therapy and Professional Services

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#### **Authors**

Lisa Totten, Emma Harris and Sharon Ryder

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Rocky Bay 60 McCabe Street Mosman Park WA 6012 Phone: (08) 9383 5111 Fax: (08) 9383 1230

Email: admin@rockybay.org.au

Post: PO Box 53 Mosman Park WA 6912

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#### Lisa Totten

Senior Speech Pathologist School Age Therapy Services

#### **Emma Harris**

Speech Pathologist AAC Project Specialist

#### **Sharon Ryder**

Senior Speech Pathologist Therapy and Professional Services



# Introduction

People who have complex communication needs may benefit from the use of augmentative and alternative communication (AAC) devices to assist them in successfully expressing their ideas to others. In 2009, families participated in a study at Rocky Bay, a Western Australian disability service provider. Caregivers were interviewed about their perspectives on who should be involved in supporting school aged children to use AAC devices that produced recorded or digital speech.

In general, caregivers reported that a team approach was preferred, particularly between the caregivers, teachers and speech pathologists. Some caregivers highlighted their own important role in supporting and developing their child's skills with an AAC device in the long term. Many caregivers reported that using an AAC device helped their child be more easily understood, be less frustrated and participate in conversations. Some caregivers found that the introduction of an AAC device increased their stress and some reported that other communication methods were more effective for their child.

Caregivers reported that the things that helped a child to use AAC included:

- using the device in everyday activities
- receiving adequate training and follow up support
- positive attitudes from the team and community
- teamwork (such as meetings at school and sharing information).

In response to these findings, Rocky Bay speech pathologists were successful in receiving a Non-Government Centre Support for Non-School Organisations (NGCS) grant to produce an information package about AAC, in particular communication devices. This package was developed to ensure local teams had access to quality information for training and support with an emphasis on the need for teamwork.

#### **Project aims**

The Positive AACtion Information Kit for AAC Teams was developed to assist parents, teachers and others involved in selecting, trialling and using communication devices with school aged children. More specifically the package aims to:

- Increase parent and teacher knowledge about augmentative and alternative communication (AAC) systems, including communication devices
- Promote strategies, based on research evidence, that maximise participation and educational outcomes for children using a communication device across a range of environments (e.g. school, home and community)
- Emphasise to parents, teachers and therapists the importance of teamwork and how it relates to the effectiveness of communication device use in children.



#### The following terms are used throughout this kit:

**Augmentative and alternative communication (AAC):** refers to other methods of communication people may use when they have difficulty speaking, such as signing, picture communication books or communication devices.

**AAC system:** refers to the group of communication strategies the person uses to augment (supplement) his speech or as an alternative to speech.

**Communication device:** refers to any electronic communication aid (also known as voice output communication aids [VOCAs] and speech generating devices [SGDs]).

**Complex communication needs:** children with complex communication needs have difficulty communicating with speech alone usually as a result of an underlying disability such as cerebral palsy.

#### How to use this package

This book has been designed to use with families and schools as part of a collaborative team model. That is, the information sheets should be given as needed at a pace suitable for individual family and school requirements. They should provide a basis for further discussion and planning.

The information sheets work as stand-alone documents, but also link to other relevant information sheets and templates.



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3b AAC feature match checklist

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# **AAC** - an introduction

Augmentative and alternative communication (AAC) refers to other methods of communication people may use when they have difficulty speaking. These methods may supplement the speech they do use or may become their primary form of communication in the absence of speech. There are many different types of AAC. There are unaided methods which do not require any additional items or equipment such as

facial expressions, gestures and signing. Aided methods include paper and pencil, communication boards and books (E.g., PODD), tablets with communication software and electronic dedicated speech generating devices (E.g., NOVA Chat).

Some people find communication difficult because they have little or no clear speech. There are many reasons why this might be the case – such as a result of Cerebral Palsy, Down's Syndrome, or Autism.

We all use other methods to supplement our speech – such as using gestures and facial expressions to get our message across more clearly. However, people with complex communication needs may rely on them all the time. "Everyone has the need to communicate. The challenge is to figure out a way of providing all individuals with appropriate ways to meet this need, regardless of their age, diagnoses, or level of disability."

(Sigafoos and O'Reilly, 2004, p.1229)

#### **Key points**

- Everyone has the right and the need to communicate.
- AAC helps people communicate by providing a range of alternatives or supplements to speech.
- AAC can help prevent the negative impacts of ineffective communication on other areas of development and quality of life.





## The Importance of AAC

The primary aim of AAC is providing a means of functional, effective communication. Therefore, AAC can:

- 1. Provide the opportunity for a person to reach their highest level of language ability both understanding others and getting their message across.
- 2. Assist in developing cognitive, social and academic abilities through the increased use of effective communication.
- 3. Reduce the risk of challenging behaviours, which result from frustrations due to not being understood by others.
- 4. Increase quality of life through a sense of fulfilment and satisfaction that their messages are being understood by others.
- 5. Increase participation in daily activities (at school, work, play) and in society.



#### References

Sigafoos, J., and Reilly, M.F. (2004). Providing the means for communicative ends: Introduction to the special issue on augmentative and alternative communication. **Disability and Rehabilitation**, 26 (21-22), 1229-1230.



# **Communication development**

Speech, language and communication are three distinct but related processes.







#### **Communication**

is the process by which individuals exchange information, ideas, needs and desires. It needs a sender – to encode the message - and a receiver – to decode the message.

#### Language

refers to a socially shared code; a conventional system for representing concepts through symbols (e.g. words) and rule-governed combinations of these symbols (ie. vocabulary and grammar).

#### Speech

is the verbal means of conveying a message.

"With access to appropriate AAC systems and early evidence-based AAC interventions, young children with complex communication needs will have the opportunity to maximize their functional communication, language development, and literacy learning, and will be able to attain their full potential."

(Light and Drager, 2007, pg. 213-214)

#### **Development of early communication**

#### **Pre-intentional stage**

People at the pre-intentional stage of communication do not yet have the cognitive skills to represent ideas in their minds and to pursue goals through planned actions. They do not deliberately communicate messages to others, however familiar people may assign meaning to their use of facial expression, eye gaze, body movement and vocalisations. For example, a caregiver may interpret their child crying as meaning they are hungry.

Intentional stage

At this stage, the person's behaviours are now intentional and directed to another person, but not yet symbolic. That is, they can make someone in their environment do something, but do not express this desire through conventional communication (ie. spoken words).

Examples of communication at this stage are pointing to objects and people, looking at things and reaching while looking.



#### **Symbolic stage**

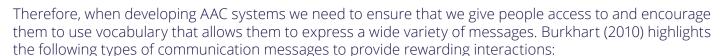
For typically developing people, symbolic communication begins to emerge in the form of spoken words. This symbolic communication occurs following, and in combination with, a period of language modelling by communication partners. For those without the ability for natural speech, conventional sign language or intentional use of AAC symbols (objects or pictures) begin to occur and, like typically developing people, will only occur following modelling by communication partners.

#### This package focuses on people who are at the symbolic stage of communication development.

We use language to communicate a variety of different messages. Think of all the different types of messages that you regularly communicate. For example, have you recently greeted someone, given an opinion, commented on a football game or told someone an anecdote? While it is important for people to communicate their basic wants and needs, communication should also allow people to develop and enjoy social relationships, learn and share new information and ideas, and express their individuality.

Research (Kent-Walsh and Rosa-Lugo, 2006) has indicated that the person who uses AAC often:

- is a passive communicator
- initiates few interactions
- responds infrequently
- produces limited types of messages
- uses restricted word types and sentence forms





initiate
call attention
greet
accept
reject
protest
request objects

share/show objects request information name acknowledge answer comment express feelings assert independence ask questions share information relate events talk about past talk about future negotiate bargain state opinions tease threaten make up stories express manners



#### **Key points**

- AAC supports a person's language and communication development.
- We communicate for many different purposes and AAC systems should also encourage this.
- AAC can support people at all levels of communication development, but this package focuses on symbolic communicators.

#### Find out more

About supporting pre-intentional or early intentional communicators....

- https://praacticalaac.org/
- About communication development...
- Raising Children website see Connecting and Communicating sections http://raisingchildren.net.au/
- Normal Language Development and AAC—handout by Gail M. Van Tatenhove www.vantatenhove.com/files/papers/Common/NLD&AAC.doc

#### References

Burkhart, L.J. (2008). Key concepts for using augmentative communication with children who have complex communication needs. Retrieved June 29, 2010, from http://www.lburkhart.com/hand\_AAC\_OSU\_6\_08.pdf

Kent-Walsh, J., and Rosa-Lugo, L. (2006). Communication partner interventions for children who use AAC: Storybook reading across culture and language. The ASHA Leader, 11 (3), 6-7.

Light, J., and Drager, K. (2007). AAC technologies for young children with complex communication needs: State of the science and future research directions. Augmentative and Alternative Communication, 23 (3), 204-216.



# AAC does dot hinder natural speech development

#### Won't AAC stop my child from developing natural speech?

We know from a wide range of research that using augmentative and alternative communication (AAC) does not stop natural speech development. In fact, it can help improve speech and language use and development (Millar, Light and Schlosser, 2006; DeThorne, Johnson, Walder and Mahurin-Smith, 2009).

#### Shouldn't AAC be introduced only after giving up hope of natural speech?

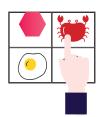
It is difficult to predict the future development of speech in a young child. People with complex communication needs who receive therapy for speech only, can endure years without an effective means of communication and with underdeveloped language skills. A person who is unable to communicate effectively is at risk for cognitive, social, emotional and behavioural problems (Romski, 2005). This might already be evident in their frustration or isolation at school.

"AAC intervention has significant benefits in the development of communicative competence and language skills; the present best evidence analysis provides data that suggest AAC interventions can also have positive benefits for natural speech production." (Millar et al, 2006, pg. 258)

## Won't AAC stop my child from developing natural speech?

Most people who have some level of speech will naturally use it as a primary means of communication (Romski, 2005). That is because speech is a very efficient, unaided way to get a message across. When we introduce AAC we look at providing a total communication system which includes a range of different communication methods, (including speech if possible), which allows the person to communicate with a range of different people, in different environments at different times.









## **Key points**

- If a person is going to continue to develop speech this will occur naturally even if they are using AAC.
- AAC should be introduced as soon as it is identified that speech is inadequate to meet their needs.
- People will always use speech, if they can, as it is the most efficient and accessible method.
- Individuals need a range of methods to be able to communicate with all people in all situations.



# But I have no problems understanding my child.

Think about all the other people they encounter in their daily life now and in the future. It is great if speech can be a component of your child's communication system and used with family, but AAC may be necessary for them to:

- participate in lessons at school,
- socialise with friends,
- participate in the community (such as going to scouts, ordering a takeaway meal)
- work towards independence in adulthood (for tertiary education, employment, living alone).



#### References

DeThorne, L., Johnson, C., Walder, L., and Mahurin-Smith, J. (2009). When "Simon Says" doesn't work: Alternatives to imitation for facilitating early speech development. American Journal of Speech-Language Pathology, 18, 133-145.

Millar, D.C., Light, J.C., and Schlosser, R.W. (2006). The impact of augmentative and alternative communication intervention on the speech production of individuals with developmental disabilities: A research review. **Journal of Speech, Language and Hearing Research**, **49** (2),248-264.

Romski, M. (2005). Augmentative communication and early intervention: Myths and realities. **Infants and Young Children**, **18 (3)**, **174-185**.

#### **Find out more**

AAC and natural speech development...

http://aacworkshop.pbworks.com/f/Myths---AAC-and-Speech-01-11-10.pdf

https://www.researchgate.net/publication/51419769\_The\_Effects\_of\_Aided\_AAC\_Interventions\_on\_AAC\_Use\_Speech\_and\_Symbolic\_Gestures



# **Types of AAC**

Augmentative and alternative communication refers to other methods of communication people may use when they have difficulty speaking. These methods may supplement what speech they do use or may become the primary form of communication in the absence of speech.

There are many different types of AAC. There are unaided methods which do not require any additional items or equipment (for example making facial expressions, gestures or signing). Aided communication does require additional items, and can be divided again into light technology (no batteries/power required) and high technology (such as computers).

## **Unaided AAC**

#### **Body movements, facial expressions and gestures**

Body movements and facial expressions include frowning, smiling and simple actions such as reaching. Gestures include natural actions such as waving, shaking hands, and pointing. Gestures are interpreted differently according to the situation in which they are used. For example, in the sentence 'I feel hungry' only the words 'I' and 'hungry' would be signed.



A communication passport can be a useful way of recording and sharing this information when a child uses a lot of this type of communication.

#### **Signs**

Key Word Sign (formerly known as Makaton) is a widely used system that promotes communication. It uses manual signs (i.e. your hands) with speech. Key Word Sign uses signs for just the key words in sentences to convey meaning. For example, in the sentence —'I feel hungry' only the words 'I' and 'hungry' would be signed



Key Word Sign is not a language like Auslan (the language of the Australian Deaf Community). Auslan is a whole different language with its own grammar rules. Key Word Sign uses Auslan signs but with speech, and follows spoken English grammar. Key word signs may help adults and children who need more than speech to communicate – by making it easier to express themselves and be understood by others, by supporting their understanding of what others say to them, and by helping to develop their own communication skills.

"The AAC devices and strategies are a tool, a means to an end – language and communication skills – not the end." (Romski, 2005, pg. 182)



## **Aided AAC**

#### **Objects / object symbols**

Objects can be used to support a person's understanding and in choice-making. For example, the teacher says — "Now it is story time" (whilst holding up a book), or a caregiver holds up a juice bottle and a tin of milo and asks – "Which do you want?" The child can then indicate by pointing or looking at the one they want. This allows all people to make choices and have some control in their lives whatever their communication level.

Object Symbols are items used to represent larger objects, events or activities. For example, keys can be used to indicate that it is time to go in the car, or a small piece of towel may represent going swimming. They are predominantly used with people with sensory impairments.

#### **Photographs**

Photographs can be used to represent objects and activities and can be used in a similar way as objects or object symbols. They are 'less real' than objects, but not as abstract as picture symbols.

#### Picture symbol boards and books

A communication board contains the picture symbols of the everyday language the person needs, or it may contain language specific to an activity (such as cooking).

A communication book is a way of organising more vocabulary for a person who uses AAC. Vocabulary can be organised in different ways, but there is generally an index page at the beginning of the book and tabs on the edges of the pages, so the owner of the communication book and their listener can quickly move to other topics or pages.

#### **Communication devices**

Communication devices (also known as speech-generating devices or SGDs) are items of equipment that generate spoken words using synthesised speech (artificial voice) or digitised speech (recorded human voice). There are a range of different communication devices of varying complexity and they change constantly as technology advances. Information sheet 3.1 has more detail about communication devices.











#### All types of AAC should be valued.

Ideally individuals will use a range of these AAC methods to mirror the diverse ways in which we all communicate. The use of multiple communication methods is vastly more effective than the use of a single method and ensures the person communicates successfully with all people in all environments.

For example, a person may have a communication device, but will also have a communication book for when the device breaks down or when it is difficult to access their device (for example, lying in bed). Furthermore, someone who can successfully use key word sign to indicate they want a drink should not then be forced to use their aided AAC system to request a drink.



#### References

Romski, M. (2005). Augmentative communication and early intervention: Myths and realities. **Infants and Young Children**, **18 (3)**, **174-185**.

#### Find out more

Types of AAC...

http://www.novita.org.au/library/Factsheet-AAC\_types.pdf

Communication passports...

- http://www.communicationpassports.org.uk/Home/
- https://www.communicationmatters.org.uk/page/communication-passports
- https://www.scopeaust.org.au/wp-content/uploads/2020/03/Toolkit-Part-2.pdf

#### Signing...

- https://www.scopeaust.org.au/services-for-individuals/specialised-communication-services/keyword-sign-australia/
- http://www.bilby.net/Sign/AboutSignLanguage.asp

Object symbols...

- https://praacticalaac.org/tag/object-symbols/
- https://www.scopeaust.org.au/services-for-individuals/specialised-communication-services/necas/ types-of-communications-aids/

Communication boards and books...

- https://www.scopeaust.org.au/services-for-individuals/specialised-communication-services/necas/ types-of-communications-aids/
- Chat-Now (CD and Manual) from Scope Victoria (2007)
- Developing and Using a Communication Book by Clare Latham (2005) ACE Centre Advisory Trust— Oxford UK
- Pragmatic Organisation Dynamic Display (PODD) Communication Books: Direct Access Templates
   CD Resource by Gayle Porter (2007)
- Cerebral Palsy Education Centre Melbourne, Australia

Communication devices...

See Section 3.