

# Choosing an AAC Device for Your Child

## PARENT GUIDE

If your child has a medical condition that makes using speech difficult or impossible, a speech-language pathologist (SLP), assistive technology (AT) specialist, or other professional may recommend an **augmentative and alternative communication (AAC)** device with voice output.

AAC devices, also called speech-generating devices (SGDs), give an individual a voice by generating prerecorded or synthesized speech based on letters, words, phrases, or sentences selected by the user.



Many individuals worldwide use AAC devices to engage in communication that takes place in the course of their daily activities at home, at school, and in the workplace.

This Parent's Guide will help you understand AAC device options and which features are most critical for helping your child achieve their full communication potential.

# The First Priority in AAC Device Selection: The Language System

The most important factor in choosing the device that will support your child in reaching his or her full communication potential is the device's language system.

A language system is how letters, words, phrases, and sentences are organized in the device's communication software. Some language systems rely heavily on the alphabet for communication. These systems typically are used by individuals who can spell their thoughts.

Other systems represent words and phrases with symbols or icons because many children are able to communicate before they are able to read and spell. Also, as vocabulary increases, combining symbols for words allows for more vocabulary with fewer keystrokes.

## Why Pre-Stored Sentences are Not Enough

In both typical and augmented communication, the ultimate goal is the same: Spontaneous Novel Utterance Generation (SNUG). SNUG allows a person to say anything they want at any time, as they would in normal conversation. With AAC, SNUG requires a device that enables access to individual words, word combinations, and commonly used phrases.

The alternative to SNUG in AAC is pre-stored sentences. While using pre-stored messages can be a fast way to communicate simple requests or commands, it restricts the individual to very limited communication. Seek out a language system that supports language development.

A system that gives your child access to a well-organized bank of frequently used single words (core words) and word endings such as '+s' and '+ed' allows for SNUG.



Learning to say and combine single words and use word endings enables your child to go

beyond using preprogrammed phrases and sentences. Learning language allows him or her to say new and different things as well as talk about the past and dream about the future.

Many SLPs recommend selecting a language system that will allow the transition from learning first words to complex communication without changing communication systems or symbols over the course of language development. It is important to evaluate how a system can meet your child's immediate language and communication needs, but also how it can grow with your child.

Once the best language system for your child has been chosen, device options can be narrowed. You then can further narrow the choices to systems that offer required technology features and other desired capabilities.



## What are Core Words?

Core words are the mostly frequently occurring words in communication. The 100 most frequently occurring words account for 60% of words communicated. Core words sometimes are not easily represented by a picture on an AAC device, but often are represented by symbols. The location of these symbols on a device needs to be stable so the device user can rely on learned motor plans and patterns for quick

# Other Features to Consider

## Alternate Access Options

AAC devices offer a variety of alternate access methods so individuals with physical limitations can operate and access the letters, words, and sentences necessary for communication.

There are two categories of alternate access methods:

**Direct selection** and **indirect selection**.

**Direct selection methods** allow immediate and direct contact with the device's display. The methods of direct selection are:

- **Touch**, such as with a finger, stylus, or toe. Typically, keyguards or touchguides are available to increase accuracy
- **Mousing** with a head mouse, joystick, trackball mouse, mouse pad, or typical mouse
- **Eye gaze**, where an individual looks at a desired location on the screen to make a selection



**Indirect selection methods** are supported by some AAC devices. These devices have special software and hardware to interpret input from a source other than a physical keyboard. The most common indirect selection technique is switch scanning. The user selects the message by activating a switch at the moment the desired word, letter, or symbol is highlighted.

**Types of switches include:**

- **Touch**—any contact with switch surface
- **Pneumatic**—air pressure change from a sip or puff
- **Squeeze**—air pressure change from a squeeze
- **Movement**—any specific movement
- **Muscle/Neural**—contraction/relaxation of a part of the body



**Types of scanning include:**

- **1-switch scanning** (auto or step)
- **2-switch scanning** (hold or step)

Multiple selection methods can enable children with even severe physical limitations to operate and communicate with an AAC device.



## Digitized or Synthesized Speech Output

- **Digitized speech output** is natural speech that has been prerecorded. The device's entire capacity for speech output is limited to the words, phrases, or messages that have been pre-stored for the user.
- **AAC devices with synthesized speech** use a technology that translates the user's input into machine-generated speech. The user is not restricted to pre-stored messages and can create an original message using letters, words, or symbols that the device then "speaks."

## Durability & Portability

An AAC device must be designed to withstand a child's rough handling. Also, since the device will most likely accompany a child to and from school, therapy sessions, and other destinations, the device should combine portability with durability.

## Accessories

Depending on a user's physical abilities and limitations, AAC accessories such as mounts and keyguards can be critical in supporting effective access to and proper positioning of an AAC device.

## Screen Size

A larger screen size allows for larger icons and keyboard keys. This can be important if your child uses a head mouse or an eye-gaze system, since selecting larger targets can be easier.

## Device Customization Options

Customizing certain device features to your child's unique access or communication needs is essential. Look for devices that enable easy customization of vocabulary as well as the ability to fine tune the alternate access method.

## Built-in Therapy and Teaching Tools

Many language systems have a variety of tools to help you teach the system and help the child learn the system. Options may include a way to search for words, a way to temporarily limit the amount of vocabulary appearing at one time, or a way to monitor progress. Examples include Icon Tutor, Vocabulary Builder™, and Realize Language™.

### AAC Device Funding

The National Disability Insurance Scheme (NDIS) will typically cover the cost of an AAC device if the medical necessity of the device has been justified in an AAC evaluation. If NDIS is not rolled out in your area, each state has its own funding body systems that can be accessed. You can get support for understanding these processes by contacting your states Liberator consultant.

## Progress Monitoring Tools

Tracking how language and communication are developing is important. Data logging that captures what was said and when is a helpful feature built into select AAC device. This data helps a team determine current functioning as well as plan intervention. Some devices also have web-based analysis that tracks and reports progress and communication development over time.

## Warranty

Compare return policies, standard device warranties, and your options in extended coverage warranties. The device manufacturer should offer to provide a free loaner device should your child's device require repair.

## User Support and Services

Successful use of an AAC device requires a professional support network. While you and your team have the primary role of helping your child maximize the use of the device, support from the device manufacturer is critical.

Select a manufacturer that offers online and in-person device training, toll-free and online technical support, and other online resources for therapists, parents, and teachers. Some companies provide additional support through a national network of regional consultants. These AAC experts offer clinical support and training to device users, families, and support teams.

*Helping your child become an independent, spontaneous communicator is a process that can be significantly enhanced with the right AAC device.*

# What is an AAC Device?

AAC devices or speech-generating devices refer to a class of durable medical equipment specially designed and engineered to enable communication for children and adults with speech impairments. These devices are rigorously tested and approved to be covered by Australian funding bodies.

AAC devices not only have robust language systems to allow for effective and efficient communication, but they also provide alternate ways to select letters, words, and messages. For example, an individual can make a selection using their eyes, the tilt of their head to activate a switch, or their fingers with the help of a keyguard to isolate the keys.

An AAC device is different than using a communication app on a mobile device. AAC devices are especially designed for the varying and specific needs of individuals with complex communication needs. In some cases, an AAC device may be recommended even if a child has had some success using an app on a mobile device to communicate. The more robust language system, more flexible software, more durable construction, larger screen size, and alternate access options found in an AAC device can make it a more effective long-term solution.

A major advantage of an AAC device is that it provides a voice so the individual can talk, which helps listeners understand exactly what is being expressed. Evidence also suggests that pairing the communicated word with voice output may help a child with auditory processing.

“Dedicated” devices are intended for communication purposes only, while other “integrated” devices have features that let the device perform as a computer, access the Internet, and act as an environmental control tool, such as a remote control for a television.



## The SLP's Role in AAC Device Selection

Selecting the appropriate AAC device requires an understanding of AAC methodologies and technologies as well as the user's strengths and limitations. That's why it's critical to rely on the assistance of an experienced SLP who is knowledgeable about AAC.

Working in conjunction with other team members, the SLP will evaluate your child's short- and long- term communication needs, potential for language development, and physical capabilities to identify the most appropriate AAC solution and desired outcomes. Among the factors the SLP will consider are:

- What are your child's cognitive abilities?
- What are your child's physical abilities and fine motor skills?
- What is the most important vocabulary relevant to your child?
- What motivates your child to communicate?

If you are pursuing third-party funding from the NDIS or other eligible schemes, the SLP's assessment and recommendation of a medically-necessary AAC device to meet your child's daily communication needs will be critical to approval of the funding request.

## Additional Resources for Parents

### AAC Language Lab

#### **aaclanguagelab.com**

Free educational resources and teaching aids to support language development, vocabulary acquisition, and effective AAC use.

### The Center for AAC and Autism

#### **aacandautism.com**

Online resource dedicated to building awareness of the power of AAC to change the lives of children with autism and other developmental disabilities that limit communication skills.

### Realize Language

#### **realizelanguage.com**

Online service that gives parents and professionals powerful ways to monitor, measure, and maximize a child's use of an AAC device.

### Speech Pathology Australia

#### **speechpathologyaustralia.com.au**

The national professional association for more than 7800 members who are speech-language pathologists.



## About Liberator

Liberator is a world-leading supplier of products, training and support for communication, inclusion and independence.

Our aim is to help you achieve the best communication possible for the people you support, whatever their age or ability.

In addition to powerful AAC devices, Liberator provides teaching and implementation ideas, therapy materials, curriculum sequences, funding assistance, and training to speech-language pathologists, special educators, and the families of people who communicate with AAC.

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