

## **SPEECH GENERATING DEVICES/SOFTWARE/SYSTEMS**

Speech generating devices/software/systems refers to assistive technology that assists with communication. They are a form of “high tech” alternative and augmentative communication (AAC) designed to enable an individual to produce or select messages for communication. A speech generating device/software/system may be suitable for someone with limited or no speech or if their speech is difficult to understand. Messages can be selected or entered either directly (e.g. with their hand/index finger) or indirectly (e.g. via a switch, head tracking, eye gaze).

There are many types of speech generating devices/software/systems available (outlined below). Also some devices/software incorporating other areas such as computer access and environmental control as part of an integrated system. All the devices and software have different features. Therefore it is recommended that trialling the various speech generating device/software/system options take place to facilitate choosing the most appropriate device to suit the individual's specific needs.



### **Static Display Speech Generating Devices**

Static display speech generating devices use page overlays which need to be manually inserted into the device.

These overlays can consist of symbols, photos and/or words depending on the clients abilities/needs. When one of these is selected, the device will say what has been recorded onto the device. For example, when the picture of the ‘pizza’ is selected it may produce the spoken message “I feel like ordering some pizza tonight” or a picture of a person waving may say “Hi, how are you today?”

Static display speech generating devices may be suitable for individuals who have limited literacy or who find navigating through pages on a dynamic display difficult.



### **Dynamic Display Speech Generating Devices**

Another type of speech generating device has a dynamic display similar to a touch screen computer. This technology allows the user to have multiple linking pages if desired. It then requires that the user navigate through the screens to communicate different messages. For example, the user might select the “feelings” topic on the main page which then links to a page which includes more options on “feelings”.

They may then choose to select the message “I’m feeling sick”, Dynamic display speech generating devices can use photo, symbol and/or word displays and some have spelling input via an onscreen keyboard.



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### **Spelling Based Speech Generating Devices**

Spelling based speech generating devices use spelling as the method of input via a keyboard or onscreen keyboard. They use the concept of “text-to-speech” whereby the user types in the sentence/s they wish to communicate and the device then speaks out the message for their communication partner to hear.

These devices are useful for someone with good literacy skills. Some devices have rate enhancement features such as: word prediction, abbreviation expansion and phrase storage.

### **Communication Software for Laptops**

There is various speech generating software programs available that use spelling and/or symbol/word communication pages. These software programs can be run on a desktop computer or laptop. There are a number of issues that need to be considered when looking at using a laptop for communication purposes. These include: portability, durability, battery life, speaker volume and the computer skills required to operate the system.

### **Integrated Systems**

An integrated system may be appropriate for an individual with multiple needs other than just communication. Some speech generating devices and software also provide computer access and environmental control. There are also specific wheelchair systems that allow the individual to undertake these various functions through the one wheelchair control system.

### **Alternative (Indirect) Access**

For people who find it difficult to directly access a keyboard or display, some speech generating devices/software offer alternative access options such as: switch with scanning, mouse emulation, joystick access, head tracking or eye gaze.

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It is often ideal to have a speech pathologist involved with the individual's support team to assist with the vocabulary to be programmed onto the speech generating device/software. With the wide range of speech generating devices/software/systems available, it is often difficult to select which one/s may best suit the needs of the specific individual. It is recommended that a Speech Pathologist with experience in ACC be consulted and that a trial of the technology take place. LifeTec offers consultations for individuals to trial a wide range of assistive technology.

#### **NEED TO KNOW MORE?**

Telephone, fax or e-mail your enquiry to obtain further information from one of the therapists about products. Alternatively, you can make an appointment to trial the equipment at our display centre or through our outreach service. Please phone LifeTec for further details.

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