



## Understanding dyspraxia after acquired brain injury

*“Dyspraxia means someone has difficulty planning and coordinating the muscle movements needed to form speech sounds and words.*

*It can be hard for someone with dyspraxia to find the correct mouth position needed to make sounds, move smoothly between sounds and words or coordinate the muscle movements needed to chew and swallow.”*

*(Speech Pathology Australia)*

This movement difficulty does not involve the muscles being weakened, a sensory loss or difficulty understanding the instruction; rather it is the neurological damage that blocks the communication between the brain and the muscles required for speech.

Dyspraxia is most commonly caused by stroke or acquired brain injury.

### There are 2 types of dyspraxia:

1. **Oral dyspraxia**– difficulty with non-verbal tasks when asked to do so (E.g. please poke out your tongue), however can perform non-verbal tasks successfully and automatically (E.g. licking an ice cream).  
Oral dyspraxia can exist by itself, however it often occurs with a verbal dyspraxia.
2. **Verbal dyspraxia**– difficulty with verbal tasks  
The person knows what they want to say, but when they try to say it, something completely different (or nothing at all) comes out. This can create enormous frustration and embarrassment.  
Automatic speech is often spoken more accurately. Automatic speech is the words and phrases that we use so often that they are almost said without thinking – such as counting, saying your name and address, days of the week, and phrases like “oh my goodness”, “good, thanks”.  
Verbal dyspraxia can exist by itself; however it often occurs with aphasia (comprehension and/or expression of language) and with oral dyspraxia.

## **Signs of dyspraxia:**

- The person may overuse the same word (they find it easier to say)
- The person may use 'searching' or 'groping' movements with their mouth and tongue to try to find the right position for the word they want to say
- Speech can be confusing and difficult to follow
- There can be pauses, hesitations and an increased effort to speak
- The person is aware of the errors with speech, however their attempts to correct are also wrong
- No speech or gesture (severe dyspraxia /apraxia)



## **Treatment and recovery from dyspraxia:**

A Speech Pathologist will assess a person's dyspraxia, and develop a specific rehabilitation treatment program targeting the areas of impairment.

The program may be a combination of:

- speech exercises
- alternative strategies to facilitate communication and reduce frustration (e.g. non-verbal strategies such as writing key words, using gesture, using facial expression, pointing to objects or people, head nodding and/or a speech generating device or app may be introduced)

Improvement is generally slow, and there is no established timeframe for recovery. Dyspraxia can be challenging to recover from, and some people will experience ongoing difficulties with their speech.

In these more severe cases, non-verbal means of communication can be used to augment (to add to) a person's speech or it can also become the alternative to a person's speech as that may be the most reliable and consistent means to communicate. A Speech Pathologist who specialises in 'Assistive Technology' would be able to advise if this approach would be beneficial.

(See 'Alternative and Augmentative Communication' section for more information).