

DYSPRAXIA SPEECH PATHOLOGY

WHAT IS DYSPRAXIA?

Dyspraxia is a disorder of voluntary movement. The muscles are strong but movements are incoordinated or impossible.

Dyspraxia occurs when the messages from the brain to the muscles are disrupted. Dyspraxia can affect many different functions including:

- Speaking
- Dressing
- Writing
- Eating



WHAT USUALLY HAPPENS WHEN WE SPEAK?

When learning to speak, we learn that speech sounds are different because they make a difference to word meanings. In fact some sounds are very similar eg 'pin' and 'bin'. Both words are made with the same movements of the lips however the sound 'b' requires voice and the sound 'p' is just air.

There is a set rhythm to speech, with changes in the stress on a syllable, making a difference to the meaning of the word, eg. 'decent' and 'descent'. Conversational speech also has a set rhythm or beat, as we plan ahead what we are going to say without always realising it.

The way sounds are produced is also quite complicated. The air stream from the lungs is modified on its shape to change the sound it makes. Changes in the shape of the airstream occurs at the following points:

Larynx: produces voice by the vibration of the vocal cords, eg. the difference between 's' and 'z'.

Soft Palate: directs the air stream either out through the nose for sounds like 'm' and 'n' or through the nose for sounds like 'ah' or 'p'.

Tongue: moves very swiftly and accurately around the mouth to produce sounds like 't' and 'k'.

Lips: change shape to make sounds like 'ee', 'oo' or 'm'.

- Some sounds are easier to produce than others, eg. 'm' is usually easier to say than 'j'.
- Where the sound occurs in the word affects its level of difficulty. (For example it may be that the beginning of the word is the easiest and the middle is hardest).
- Which sounds are next to each other is also important; saying two or more consonant sounds together is difficult, eg. 'small' whereas 'car' may be easier to say because the 'c' sound and the 'ar' sounds are both produced at the back of the mouth.
- The more sounds in the word, the harder it is to say.

SYMPTOMS OF VERBAL OR SPEECH DYSPRAXIA

People with verbal **dyspraxia** are often able to say words clearly as an automatic or reflex reaction to a situation but are unable to say the same words in a different situation. Symptoms include:

- Inability to copy face movements
- Searching behaviour with the tongue or lips when trying to say a sound
- Anything between no speech at all and a hesitant stutter-like quality to speech
- Inaccurate, distorted and stilted speech sounds
- Trying to correct mistakes in speech seems to make matters worse
- Getting stuck on one word or phrase that keeps coming out when trying to say something different (perseveration)
- Sometimes breathing and voice are also affected when trying to speak, while at other times they may be normal

Severity can vary greatly from person to person.

Dyspraxia often occurs with aphasia (see Aphasia brochure) and it may be very difficult to distinguish aphasic errors from dyspraxic errors.

WHAT CAN BE DONE?

A Speech Pathology assessment is essential to determine whether dyspraxia is present and what the best kind of treatment is. A Speech Pathologist can design a therapy program to ensure that it is as effective as possible.

Therapy involves working on various exercises. For example, therapy may focus on producing voice, different vowels, consonant sounds, short words or phrases (with a level of difficulty depending on the severity of the dyspraxia). The Speech Pathologist will carefully select the words worked on in terms of their articulatory complexity, length and relevance to each particular client. Alternative methods of communication will also be explored with more severe dyspraxia to optimise communication.