

► Stroke and its effects on Communication

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What is a Stroke/Cerebrovascular Accident?

A Cerebrovascular Accident (CVA), or what is more commonly known as a Stroke (*Puplesija*) occurs when the blood supply to the brain is in some way interrupted. This interruption causes a lack of oxygen supply to the brain cells, thus causing some of the cells to die whilst damaging others.

What happens following a stroke?

Due to a stroke a patient may experience temporary or impaired movement or skills, this may include lack of ability to walk or move a leg or an arm. Other difficulties may include an inability to eat adequately and impaired communication which may affect both speaking and or understanding of language. The different types of difficulties are dependent upon the areas of the brain effected and degree of damage to those areas. The difficulties may be temporary (for a short while) or permanently (a person loses totally that skill).

The role of the Speech-Language Pathologist following a stroke

The role of the speech and language pathologist (SLP) in the management of an individual who has suffered a stroke, is to:

- ❖ Assess whether a patient is experiencing speech, language **and**/or swallowing difficulties.
- ❖ Intervene accordingly, either through direct or indirect therapy.
- ❖ Offer communication strategies to both the patient and relatives to facilitate communication.

- ❖ Provide alternative and augmentative modes of communication if the patient is experiencing **severe** communication impairment.

What does a speech and language pathologist assess?

The SLP assesses whether the individual has comprehension, expression **and/or** swallowing difficulties.

The SLP assesses:

- A. Comprehension of
 1. Simple, two-part and complex commands.
 2. Both objects and pictures of nouns, verbs, adjectives and prepositions.
 3. Questions requiring a yes-no response.
 4. Wh- questions (e.g., What do you do with an umbrella?).
 5. Extended speech, where a short story is read and the individual is asked to answer a few questions related to the story.
- B. Expression in
 1. Automatic speech, eg. reciting the numbers.
 2. Naming objects and pictures.
 3. Fluency naming.
 4. Voice quality and loudness, and the articulation and intelligibility of speech.
 5. Complex sentences, eg. by narrating a story.
 6. Describing a sequential task, eg. preparation of a sandwich.
- C. Oro-motor movements to evaluate strength and coordination of the speech muscles.
- D. Dysphagia or swallowing difficulties.
- E. Pragmatic skills consisting of the social rules of language use, eg. the ability to initiate a conversation.
- F. Reading comprehension.
- G. Writing comprehension.
- H. The need of augmentative and alternative communication.

What does SLP intervention include?

SLP intervention can be either direct or indirect. Indirect intervention involves supporting the family, carers and the individual to establish the best communication environment. Direct intervention involves exercises specifically carried out with the individual to improve speech, language and swallowing difficulties.

Indirect Intervention: Tips on how to Communicate

Every person has experienced at some point in one's life, a time when he is not understood. This can make you feel very frustrated. You can either give up or else try to make yourself better understood. An individual who has suffered from a stroke can experience this, a number of times every day. These unsuccessful attempts on communication may discourage the individual from interacting with others. Feelings of frustration at the inability to communicate can lead to anger and depression. Throughout a conversation, the individual may tire easily and show extreme emotional fluctuations. Thus, it is very important that communicating partners try to adapt their way of communicating to facilitate interaction with the individual.

Below are some strategies that communicating partners need to adopt to improve interactions with individual's having speech and language difficulties after stroke.

- ❖ Use short sentences.
- ❖ Rephrase when not understand.
- ❖ Simplify sentences used.
- ❖ Don't forget that the individual is not a child, and thus, involve him/her in decision-making activities.
- ❖ Give him/her time to speak, don't do all the talking.
- ❖ Reduce your own rate of speech.
- ❖ Try and involve him/her in social activities.
- ❖ Decrease the number of distractions and noise in the room.
- ❖ Use short-ended questions.
- ❖ Use gestures when speaking.

- ❖ Be empathic and let him/her know that you understand their frustration when they are not understood.

- ❖ An SLP might recommend an augmentative and alternative communication (AAC), such as, a communication board. In this case, you should be directly involved in the planning process, and encourage the individual to use it as frequently as possible.

- ❖ Keep up with leisure activities both for yourself as well as for the individual suffering from a stroke.

- ❖ Join a self-help group, such as, the Maltese Stroke Association or seek counselling services if the need arises.

Direct Intervention

Based on the results of the assessment of language comprehension, language expression, cognition and swallowing, an individualized intervention program with long- and short-term goals is designed.

Intervention may include:

- ❖ Exercising speech and swallowing muscles to strengthen oro-motor muscles.
- ❖ Teaching techniques to improve communication in spite of limited verbal expression. A technique used is circumlocution where the individual is asked to describe the object rather than name it. This technique is used with individuals experiencing word-finding difficulties.
- ❖ Providing strategies to make speech more intelligible to compensate for the muscle weakness, eg. exaggerating oro-motor movements while speaking.
- ❖ Helping the individual to compensate for poor memory skills by keeping a diary where one can note daily schedules and appointments.
- ❖ Exercises to improve comprehension of commands starting from simple to complex commands.
- ❖ Teaching safer swallowing techniques (refer to dysphagia).
- ❖ Providing augmentative and alternative communication (refer to AAC).

Local contacts and links

Stroke support group: Zammit Clapp Hospital

Maltese Stroke Association

AAC institute: www.aac institute.org

The Stroke Association: www.stroke.org.uk

Dysphagia resource centre: www.dysphagia.com