

# STROKE AND ITS EFFECTS ON SPEECH AND LANGUAGE

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## Introduction

The technical term for stroke is **cerebral vascular accident (CVA)**. This means that blood supply to the brain cells have been cut off and the brain has been injured. One of the arteries of the brain may hemorrhage or clot, preventing blood and oxygen from reaching certain portions of the brain. Because brain cells cannot survive without oxygen, the affected cells die quickly.

Some people may get warnings of potential stroke. They may have feelings of numbness on one side of the body (in the feet, arms or face) and maybe some difficulties in speaking. These episodes are called **transient ischemic attacks (TIAs)**. A stroke may not affect all areas of the brain equally. Stroke patients are not all alike. They will behave differently depending on the portion of the brain that was affected, the severity and type of injury and how long ago the stroke occurred.

When a stroke affects the area of the brain that controls speech and language, a person may experience a disturbance in speech and language functions – speech, understanding of speech, reading, writing and sometimes ability to do arithmetic. One or more of these areas may be affected at one time.

## What are the speech and language problems encountered after a stroke?

### 1. *Problems in Understanding*

Some people know when someone is talking to them, they can hear her voice but all the words said do not make sense. It is the same with reading. They can see the various letters and grouping of letters to form words but those words do not mean anything to

them. It is like reading a foreign language. As they improve, they may be able to understand a spoken or written command if stated simply.

## **2. *Problems in Recalling Words***

Word recall or word finding is an area of expression that is commonly impaired in stroke patients. They may be able to indicate that they know an object/person but may have trouble finding/recalling the name of the object/person.

## **3. *Problems in Forming & Saying Words***

Some stroke patients will know exactly what to say but will have difficulty forming words with their mouth and tongue. Sometimes it may be that the muscles for speech are paralyzed or weak and therefore are unable to articulate accurately. Other times, the muscles may not be paralyzed but they are not receiving correct signals from the brain that enable them to articulate speech smoothly.

## **4. *Jargon Sentences***

Some patients appear to speak in complete sentences but those sentences mean nothing to others. Their thoughts and what they intend to say may be meaningful but they are unable to express themselves using the correct choice of words. Sometimes they use words that do not exist in their language. For example, "I want to go taske" for "I want to go to the toilet". They are usually unaware of their own speech so they are unable to correct themselves.

## **5. *Problems in Writing and Arithmetic***

A patient who has difficulty saying words may also have difficulty writing them down. They may be unable to spell and write even simple words. Usually the dominant hand is weak or paralyzed, forcing them to use their non-dominant hand to write. This results in much frustration trying to write with the left hand. Number concepts and the ability to do mathematics (subtraction, division, etc) may also be affected.

## **Rehabilitation of persons with stroke**

Apart from speech and language difficulties, most stroke patients have weakness or paralysis on one side of the body. They may also experience some swallowing problems. Thus, it is important that the patient receives therapy to assist in the recovery process. The various therapies that play a vital role are physiotherapy, occupational therapy and speech language therapy.

Recovery from stroke is a slow process that is helped by encouraging the patients to do as much for themselves as possible. The biggest task for the families is to accept them as they are, recognizing their limitations but stressing on their remaining abilities and allowing them the opportunity to do things for themselves. With support, most stroke affected victims can improve their skills.

