

# Speech Language Pathology

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# Introduction

- Role of Speech Language Pathology in Rehabilitation from Stroke / CVA



# Speech Language Pathology

- **Comprehension/ Understanding Language**
- **Expression of Language**
- **Motor Speech**
- **Cognition / Thinking**
- **Dysphagia**



# Comprehension / Understanding

- Understanding what you Hear
- Understanding what you Read

# Expression

- Expressing yourself Verbally
- Expressing yourself Writing

# Motor Speech

- Dysarthria -- mouth weakness
- Apraxia -- coordinating movements

# Cognition / Thinking

- Attention / Concentration
- Memory
- Initiation
- Thinking flexibly
- Solving problems
- Speed of processing / thinking

# Dysphagia

- Difficulty with swallowing
- Weakness in mouth or throat
- Decreased sensation in mouth or throat

# Left CVA

- Stroke affects Left side of the brain and Right side of the body

# Impacts Language

- **Aphasia** -- “Impairment of language”
- May impact ability to understand information more than ability to express self or vice versa

# Aphasia

- Impacts ability to Understand what you Hear or Read
- Impacts ability to Express self Verbally or Writing
- Each area can be impacted or some areas more than others



# Impacts Motor Speech

- **Apraxia** -- Difficulty coordinating movements of your mouth or limbs
- You know what you want to say or do but can't coordinate it



# Impacts Cognition

- **Attention** -- may have decreased initiation or motivation
- **Memory** -- may have difficulty remembering information

# May impact Swallowing

- ◆ **Dysphagia** -- Weakness or Decreased ability to feel food or liquid in your mouth or throat

# Right CVA

- Impacts Right side of the brain and Left side of the body

# Impacts Cognition

## ■ Attention

- may be very Distractable
- may have difficulty Attending to left side of the body or environment

## ■ Memory

- may have difficulty remembering information because so distractable

# Impacts Communication

- “Cognitive Communicative Difficulty”
  - ✦ Due to distractability, they may have difficulty attending to conversations or people in their environment

# May Impact Swallowing

- **Dysphagia** -- Weakness or Decreased ability to feel food or liquid in your mouth or throat
- May not pay attention to or cannot feel food stuck in cheek

# Brainstem CVA

- Deep part of the brain
- The control center for nerves impacting swallowing and speech

# Impacts Swallowing

- Dysphagia (swallow difficulty again)
- Significant weakness in mouth and throat

# Impacts Motor Speech

- **Dysarthria** -- Weakness in mouth causing decreased intelligibility in speech

# Can Impact Cognition / Thinking

- **Attention** - Difficulty with alertness or concentration

# Left CVA

- **Aphasia** -- “Language Impairment”
- Impacts ability to understand what you **Hear and Read**
- Impacts ability to express yourself **Talking or Writing**

# Difficulty Understanding what you Hear

- Speaking louder to these folks will not help!!!
- Family speak simply
- Facial expressions & Gestures
- Write words or pictures down
- Give written choices

# Difficulty Understanding what you Read

- Bigger print may help them see text better but not understand it
- Scale down what they read
- Listen to text read aloud as they read written text
- Pair written words with pictures

# Difficulty Expressing yourself through Talking

- Try to describe the word
- Point / Use gestures
- Write word if able
- Use picture boards
- Alphabet board

# Difficulty Expressing yourself through Writing

- Draw / Use pictures
- Practice writing via words paired with pictures

# Difficulties with Comprehension & Expression

- Communication Book

- ◆ Pictures of salient things in life
- ◆ “Remnant Pocket”

# Apraxia

- Difficulty with coordinating movements from brain to mouth
- Not weakness. Is incoordination
- Slow pacing to give time to get movements in right place / order

# Right CVA

- Difficulty with
  - ◆ Attention
  - ◆ Memory
  - ◆ “Cognitive Communication”

# Difficulty with Attention

- Keep environment simple
- Cue them to attend to Left side of body or environment

# Difficulty with Memory

- Keep a memory book or day timer
- Write information down
- Consistency
  - ◆ Calender
  - ◆ Schedule

# Cognitive Communicative Difficulty

- Keep environment simple
- Cue them to interact with friends and family

# Brainstem CVA

- Impacts
  - ✦ Swallowing
  - ✦ Speech intelligibility

# Dysphagia (Swallowing)

- Postural strategies - Chin tuck, head tilt
- Change diet consistency - Make foods softer or liquids thicker
- Deep Pharyngeal Nerve Stimulation
- Water Protocol

# Dysarthria (Speech)

- Mouth exercises
- Slow down talking
- Letter board

# Medications

- Can be used to assist with initiation, attention / concentration, speed of processing, higher level thinking
- Ritalin
- Aricept

# Of New Interest

- Water Protocol
- Executive Functioning and Aphasia  
Skills other than language to  
communicate
- Residential Aphasia Program