



# R CVA ACA

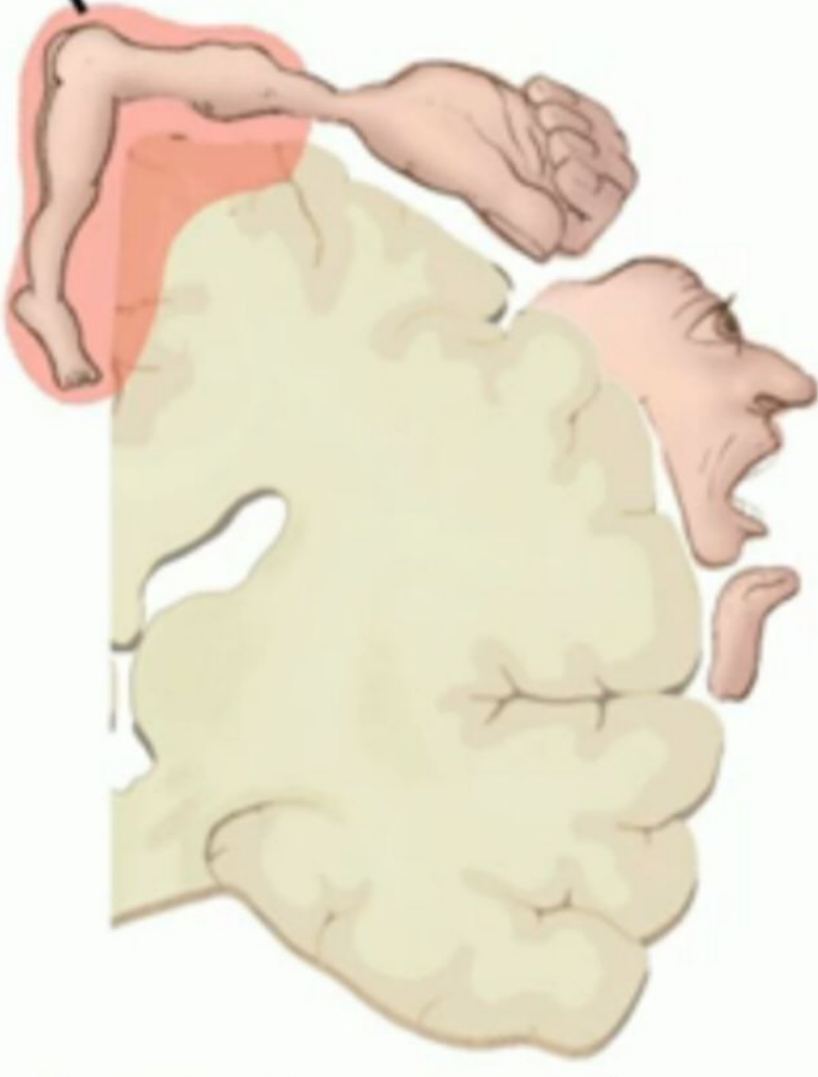
Effects on safety and emergency management

# ANTERIOR CEREBRAL ARTERY

- Supplies the Anterior and inferior part of the frontal lobes
  - Control of Voluntary Movement
  - Thinking and Problem Solving
- Supplies part of the parietal lobes
  - Perception
  - Processing of sensation

# ACA Infarct

Stroke area



Sensory homunculus

Motor homunculus




Anterior cerebral artery supply



# (ETIOLOGY)

- Complication of several disorders
- Atherosclerosis—most common
- Hypertension, smoking, diabetes
- Heart disease – Atrial fibrillation
- Other
  - Trauma – fat embolism
  - Tumor – infection
- Less common than MCA and PCA CVA's

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- Falls, lack of judgment and problem solving
  - Needs supervision
  - Adaptive techniques for deficits in sensory perception and functions
  - Personality changes
  - Contralateral hemiplegia and hemiparesis to LE more than UE

# PROGNOSIS

- Mortality rate is low
- Aphasias from ACA infarcts tend to improve within a short period.
- Recovery is possible, but not necessarily to the same level of function before the stroke.



# CVA MEDICAL MANAGEMENT-

- Emergency treatment: open airway, establish fluid balance, and treat medical problems
- Give medications that help reestablish blood flow to the brain
- Decide if surgery is indicated to repair damaged blood vessels to reduce bleeding and prevent additional damage to cerebral tissues

- Positioning techniques
- Maintenance of full joint ROM and prevention of deformity
- Improve motor function
- Manage Tone
- Integrate sensory-perceptual and cognitive functions
- Facilitate maximum level of functional independence
- Encourage health management and maintenance behaviors to prevent recurrent stroke
- ADL and IADL performance
- Grading, adapting, and restoring

## OT ROLE AND COMMON ASSESSMENTS

- Assess sensory system dysfunction
- Assess perceptual dysfunction
- Assess cognitive dysfunction
- Assess behavioral manifestations
- Assess Oral-Motor dysfunction



# OCCUPATIONAL PROFILE

- Client is a 48 year old man who lives alone. Before his stroke, he worked in Tech support for a business office. He was very active, enjoyed playing slow pitch softball with his co-workers, and enjoyed cooking for himself and friends. He is single, but is still in occasional contact with his ex-wife. He has a history of smoking cigarettes and hypertension.
- He needs constant supervision for safety due to decreased processing skills, judgement and executive functioning.
- He looks forward to cooking, returning to work in some capacity, and enjoying leisure time with friends. He knows he has a long recovery ahead of him and wants to work hard.

# IMPACT ON PATIENT'S PERFORMANCE PATTERNS, SKILLS AND DESIRED OCCUPATIONS

- Decreased control of voluntary movement
- Deficits in executive functioning and cognitive flexibility
- Decreased Safety and Emergency Management
- Difficulty processing sensory information
- Decrease independence in ADLs, IADLs, Work, Leisure, and Social Participation

# IDENTIFICATION OF PRIMARY CLIENT FACTORS IMPACTING THE ASSIGNED PERFORMANCE SKILL AND OCCUPATION

- SAFETY AND EMERGENCY MANAGEMENT
- Higher-level cognitive functions are most effected.
  - Responding to emergencies, recognizing hazards, and taking action to reduce threat to safety
- Difficulty processing



STG:

- Client will identify 3 safety hazards in the kitchen in order to increase independence in Safety and Emergency Management requiring less than 3 verbal cues within 4 weeks.

# CLIENT FACTOR: EXECUTIVE FUNCTIONS AND JUDGEMENT

- Practice Recognizing Potential Hazards in the Kitchen
- The environment will have 5 visible safety hazards and the client will be asked to find as many as they are able.
- Strategies to eliminate those hazards will be discussed.
- Verbal cues will be utilized as needed for safety.



# ARTICLES.

Skidmore, E. R. (2015, June 15). Cognitive Impairments After Acute Stroke: Guiding Principles for Occupational Therapy Practice. *OT Practice Magazine*, 7-10.

Burns, S. P., & M. N. (2018, June 4). Cognitive Impairment in Adults With Stroke: Incorporating Assessment and Intervention Approaches in the Home Environment. *OT Practice*, 23(10), 9-13.



# ACTIVE LINKS TO ARTICLES CITED

- <https://www.aota.org/Publications-News/otp/Archive/2015/06-15-15/stroke.aspx>
- <https://www.aota.org/publications-news/otp/archive/2018/cognitive-impairment-adults-stroke-assessment-home.aspx>

## ADDITIONAL SOURCES:

- Early, M. B. (2006). *Physical dysfunction practice skills for the occupational therapy assistant*. St. Louis, MO: Mosby Elsevier.
- Maths Casano HA, Tadi P, Ciofoaia GA. Anterior Cerebral Artery Stroke. [Updated 2019 Apr 8]. In: Stat Pearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2019 Jan-.