

# Brain Injury Basics: Charismatic Care Management

Andrew Mc Monigle BSN, CRRN, RN  
Sherri Biewer BAN, CRRN, RN

Minnesota Brain Injury Professional Conference  
April 25, 2024

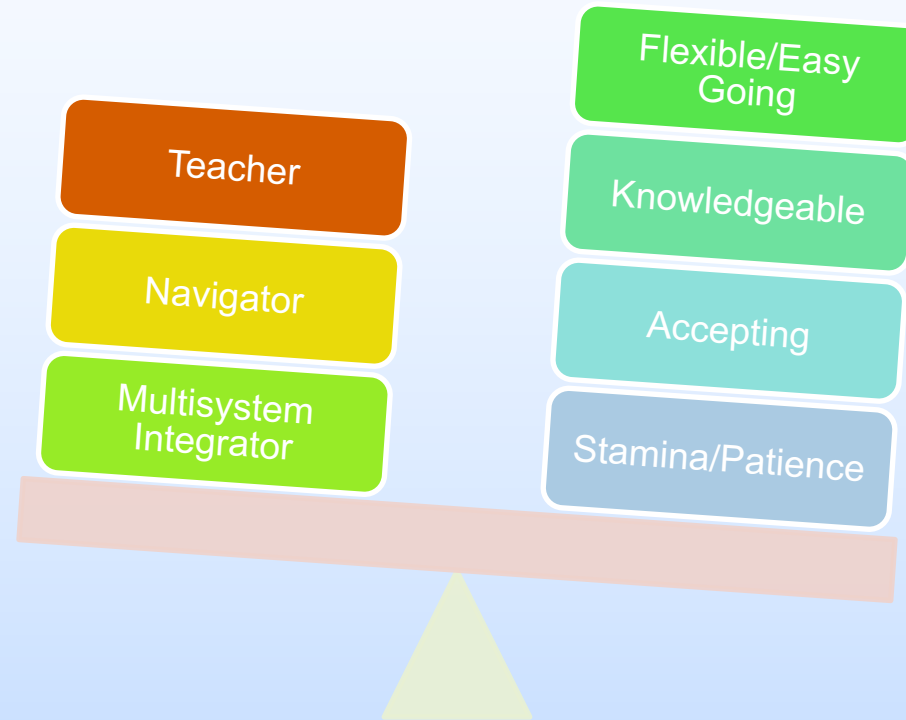
# Objectives

- Discuss the lobes of the brain and how TBI and brain anomalies affect each of them
- Discuss the pathophysiology of brain injury
- Identify priority interventions and techniques to care for this population in the hospital setting

# Nurse Roles/Qualities

Roles

Qualities



# Here and Now

- Focus interactions on here and now
- Go where they are...
- Embellish conversation
  - Establish relationship
  - Create a bond by exploring patient interests

# Challenging Behaviors

- Usually temporary or change overtime
- Keep the patient and yourself safe
- Be nonjudgmental. . .we would all behave this way with a similar injury
- Source of great stress for staff and families
- Has anyone lived through the challenging behaviors of the terrible twos?

# Helpful Suggestions

- Learn to use silence
  - Listen to the patient
  - Paraphrase and restate
  - Try to discover the real problem
    - What are the patient's behaviors telling you?
  - Use diversion/distraction
  - Channel their feelings into an activity
- What to do if this doesn't work

# The Art of Distraction

- Know the patient's history
  - Likes and Dislikes
  - Hobbies
  - “Get to know *me*” Board
    - First used by palliative care practitioners at Massachusetts General Hospital
    - Patients and families find helpful
      - Fostering communication
      - Building relationships with team
      - Humanizing care
    - Gives the family a task to help with

(Ahmad, et al., 2023)

# Get to know *me*

during my stay at Mayo Clinic

Name \_\_\_\_\_

I like to be called \_\_\_\_\_

## Favorite

Movie \_\_\_\_\_

TV Show \_\_\_\_\_

Book \_\_\_\_\_

Music \_\_\_\_\_

Sport \_\_\_\_\_

Food \_\_\_\_\_

Pet \_\_\_\_\_

## Activities/Hobbies

## Achievements

## Things that Stress Me Out

## Things that Cheer Me Up

## Other Things I'd Like You to Know About Me

## At Home I Use

Glasses/Contact Lenses     Hearing Aid

Dentures     Other \_\_\_\_\_

©2023 Mayo Foundation for Medical Education and Research

MC23 19-20

©2023 Mayo Foundation for Medical Education and Research; all rights reserved.



# Education

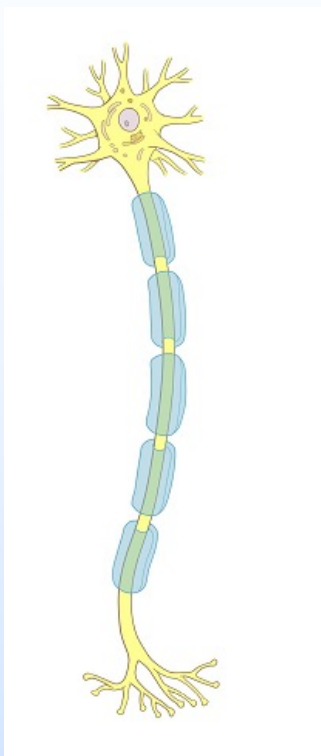
- Auditory vs. Visual Comprehension
  - How does the **Patient** understand best?
  - How does patient **Interact** with family?
  - Is family **Ready** to learn?
  - How does **Family** learn best?

# Location of Injury

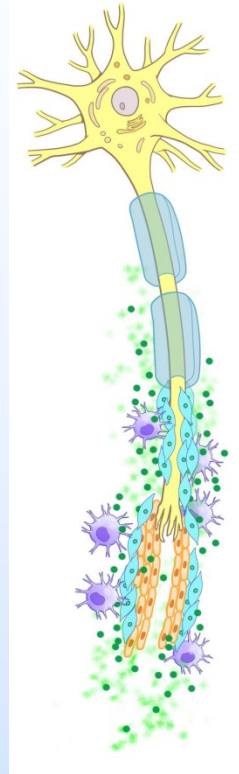
- Right vs. Left Brain
- Lobes:
  - Brain stem
  - Cerebellum
  - Frontal Lobe
  - Parietal Lobe
  - Occipital Lobe
  - Temporal Lobe

# Closed Head Injury: Diffuse Axonal Injury

Normal Axon

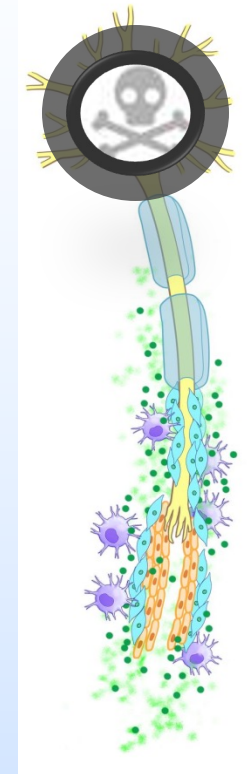


Shearing of the Axon



Trauma causes axon  
to twist and tear

Post-Traumatic Condition



Permanent death  
of brain cell

# Left vs. Right

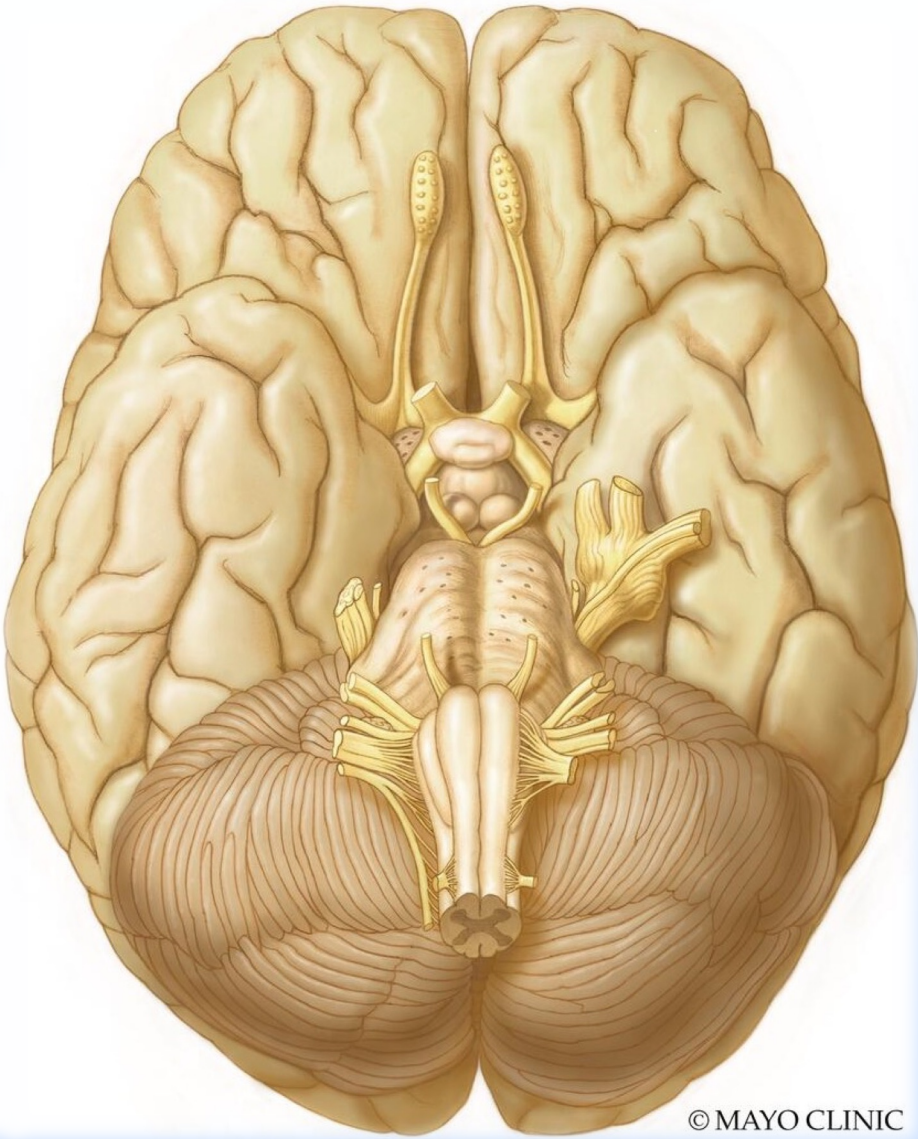
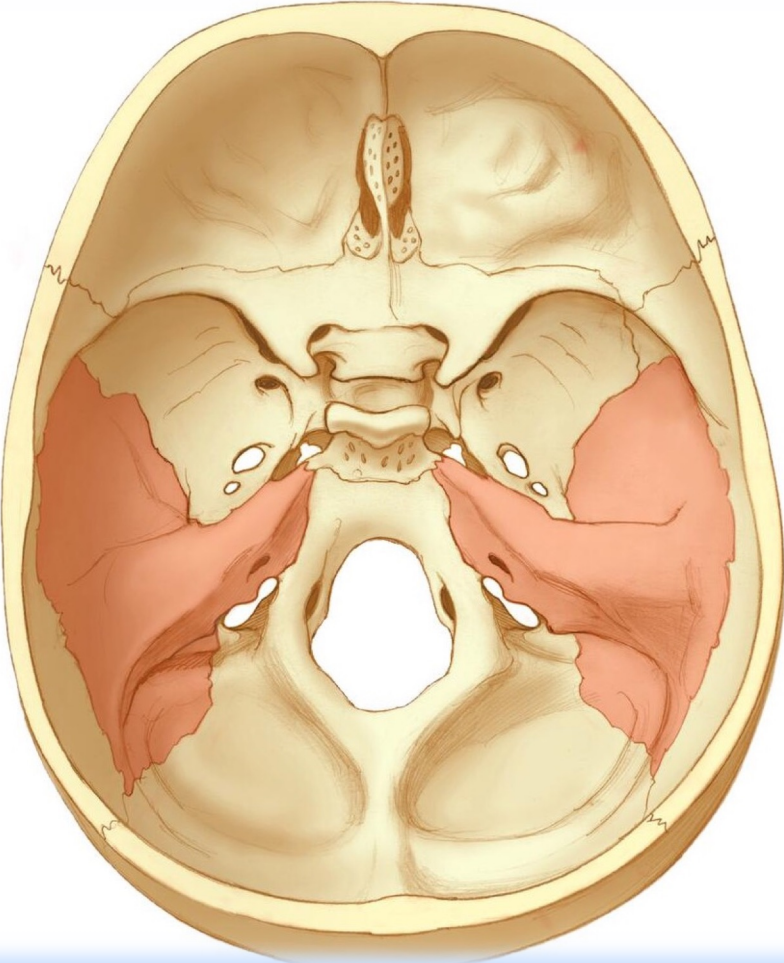
- Left

- Controls movement and sensation in right side of the body
- Verbal and logical functions
- Thought and memory
  
- Ex: Patient with impaired speech and language.

- Right

- Controls movement and sensation in left side of body
- Nonverbal and intuitive functions
- Impaired Judgment
  
- Ex: Patient will be more prone to not using call light before transferring self.

# Primary Injury

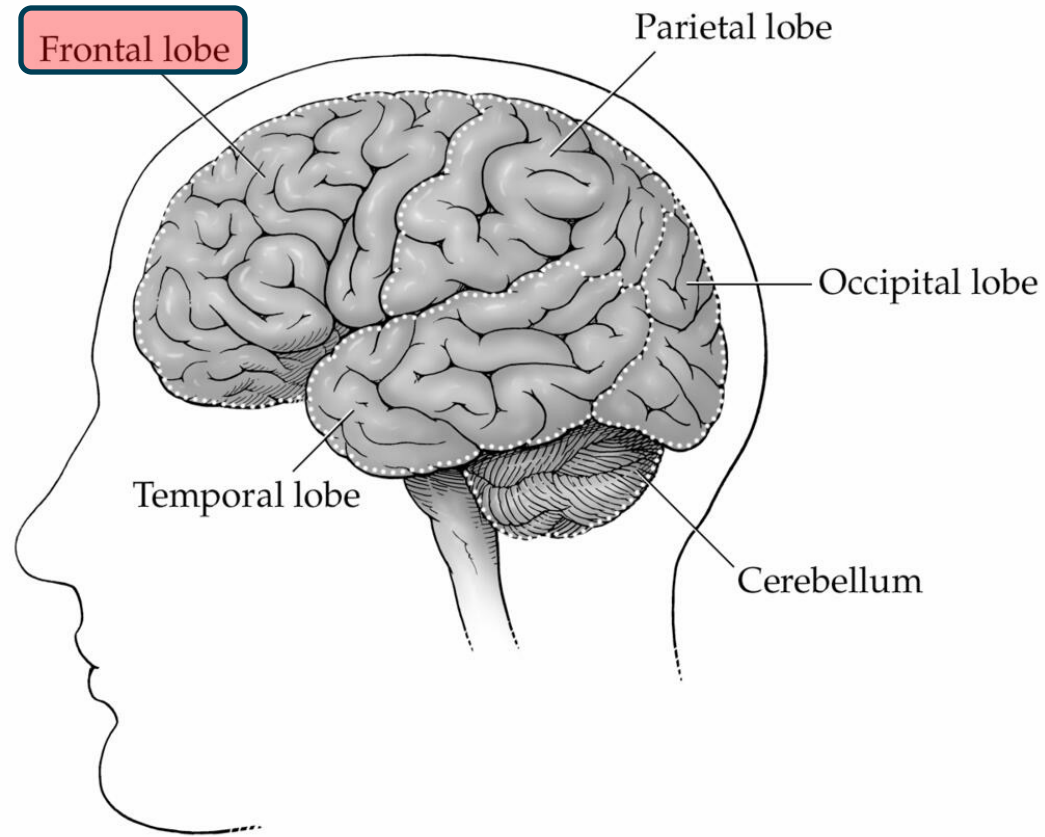


© MAYO CLINIC

# Location, Location, Location

- Function of the Frontal Lobe
  - The part of the brain that distinguishes us from the rest of the animal world through executive thinking
- Injuries of the frontal lobe cause many of the challenging behaviors that we see

# The Frontal Lobe



© Mayo Clinic, 2024

# Frontal Lobe Injuries: May Cause

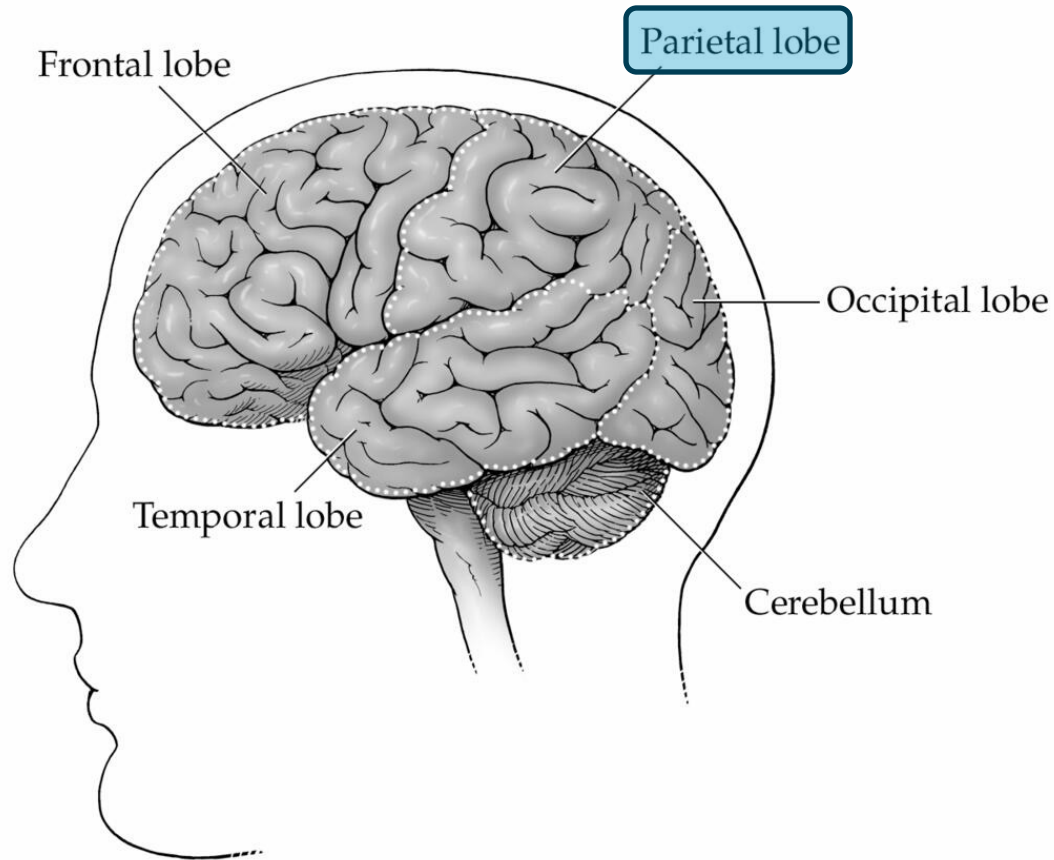
- Loss of inhibition
- Poor memory
- Expressive aphasia
- Problems with voluntary movement
- Reduced ability to plan
- Profound personality changes
- Inability to control emotion
- Severe mood swings



# Frontal Lobe Interventions

- Use patient name to get their attention
- Use visual aides in conjunction with verbal
- Use distraction with their passions and likes
- Be patient with their difficulties in ability to express themselves
- Be aware of their “Short Fuse”

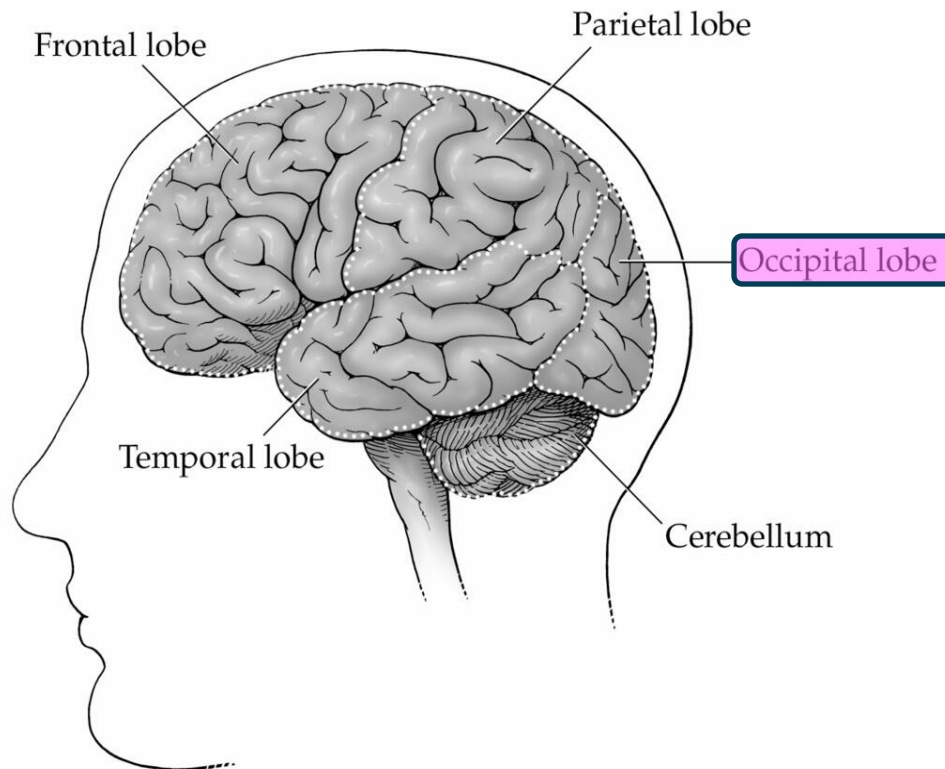
# Parietal Lobe



# Parietal Lobe

- Sensory is the main function
- Sensations include touch, temperature, pressure, vibration, and pain
- Proprioception- where body is in space
- Body position
- Learned movements- writing/math

# Occipital Lobe

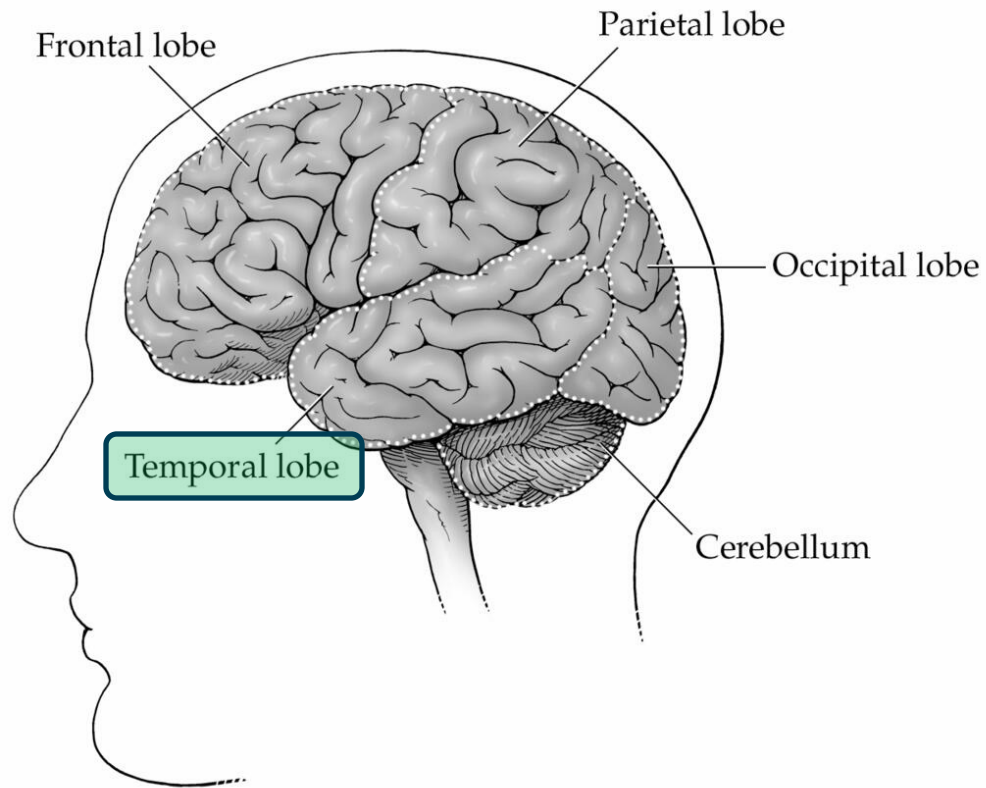


© Mayo Clinic, 2024

# Occipital Lobe

- Visual interpretation
- Visual communication/gestures
- Optic nerve damage causes visual difficulties
  - Field cut
  - Partial blindness

# Temporal Lobe



© Mayo Clinic, 2024

# Temporal Lobe

- Auditory comprehension- interpreting the words
- Creating Memory
  - Temporal- Temporary

# Damage to Temporal Lobe

- Be aware of nonverbal
  - Attitude
  - Facial expression
  - Not what you say it's how you say it

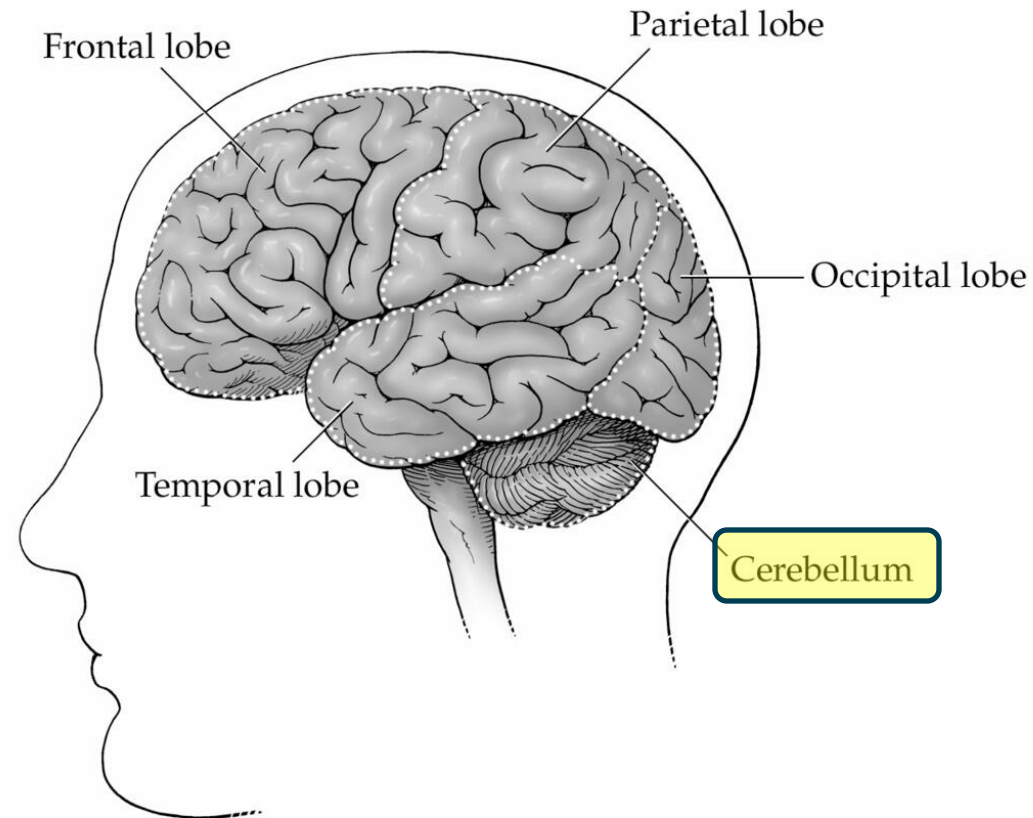
## **Auditory Comprehension Interpretation**



# Repeat, Repeat, Repeat

- Repeat verbal and visual gestures
- Have patient perform task over and over
- Practice call light usage (this incorporates the frontal, parietal, and occipital lobes)
- Utilize the functions of the uninjured lobes to create successful task operations
- Communication

# Cerebellum



# Cerebellum

- Balance
- Jerky movements/ataxia

# Safety

- Multiple Risks:
  - Confusion, agitation, impulsiveness, impaired judgment, and impaired memory
- Multiple Interventions:
  - Chair alarm/bed alarm
  - Frequent checks
  - Individual patient assignment (IPA)
  - Low bed/floor mats
  - Environmental safety
  - Duress badge
  - Wander management system

# Applications for Smart Phones

- Apps available for I-Phone or Androids for people with Brain Injury Speaking pad-talking notepad
  - Alexa
  - Security camera/baby monitors
  - Any.do
  - Evernote
  - Spaced Retrieval Therapy
  - Podcast app/audible
  - IOS apps- notes, reminders, calendar, alarms
  - Google calendar
  - Tactus therapy apps (Language Therapy 4-in-1)

# References

- Ahmad, S. R., Rhudy, L., Fogelson, L. A., LeMahieu, A. M., Barwise, A.K., Gajic, O., & Karnatovskaia, L. V. (2023). Humanizing the intensive care unit: Perspectives of patients and families on the get to know me board. *Journal of Patient Experience*, 10. <https://doi.org/10.1177/23743735231201228>
- Earnest, K. & Garvin Higgins, P. (2020). Traumatic injuries: Traumatic brain injury and spinal cord injury. In S. Vaughn Editor (Ed.) *Specialty practice of rehabilitation nursing: A core curriculum (8th ed., pp. 375-401)*. Association of Rehabilitation Nurses.
- Mayo Clinic (2013). *Understanding Brain Injury: A Guide for the Family*. Mayo Clinic Foundation for Medical Education and Research
- Laurie, L.E.P. (2022). Neuroanatomy. *Neuroscience* (6th ed.). Saunders.

# Organizations for Additional Resources

- Brain Injury Association of America  
[www.biausa.org](http://www.biausa.org)
- Center for Disease Control and Prevention  
[www.cdc.gov](http://www.cdc.gov)
- Health Resources and Services Administration  
[www.hrsa.gov](http://www.hrsa.gov)
- National Institute on Disability and Rehabilitation Research  
[www.ed.gov/about/offices/list/osers/nidrr](http://www.ed.gov/about/offices/list/osers/nidrr)
- Centers for Independent Living

# Summary

- Patients with a traumatic brain injury will have different characteristics based on the location of the injury
- Knowing the functions of each lobe of the brain will help determine the behaviors that seen
- Different interventions will be helpful for managing different traumatic brain injuries



# Questions?

