

# Communication for Individuals with Brain Injury, Caregivers, and Providers

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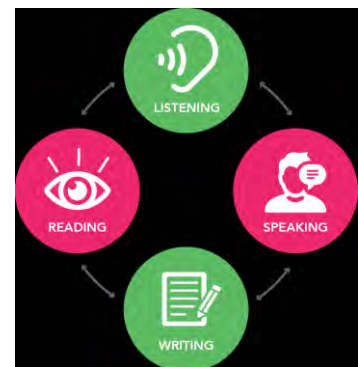
## Learning Objectives

- Throughout this presentation, we aim to:
  - Identify how a brain injury impacts communication from a neurological perspective.
  - Recognize the role of speech-language pathology as part of a care team after brain injury.
  - Summarize communication barriers and compensatory strategies to support expression and understanding among individuals.
    - Language- expressive and receptive
    - Cognition and Executive Functioning within communication

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## What is communication?

- Communication is:
  - A “process by which information is exchanged between individuals through a common system of symbols, signs, or behavior.” —Merriam-Webster
  - Woven into the fabric of our existence. It’s how we interact with the people we love, the people we receive support from, and the world as a whole.
  - Receptive (understanding) and expressive (providing information)
  - Verbal (words, sounds) and nonverbal (body language, actions)
  - Social (“pragmatics”, relationships)
  - Emotionally fulfilling and functional for managing medical and personal needs and wants



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# Patient perspectives: Video

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## **Brain Injury & Communication**

Neurological changes and the impact on communication

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## When you've seen one brain injury...

- ▶ ...You've seen ONE brain injury.
- ▶ Each injury is unique
- ▶ Each brain is unique



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## IMPORTANT NOTES:

Brain Injury Severity Classifications		
Mild	Moderate	Severe

- **Severity of injury may NOT be an accurate depiction of how daily functioning will be impacted.**
- **This is NOT a predictive determination of problems OR outcomes.**
- **These descriptors were designed to medically indicate the likelihood these injuries will cause death.**

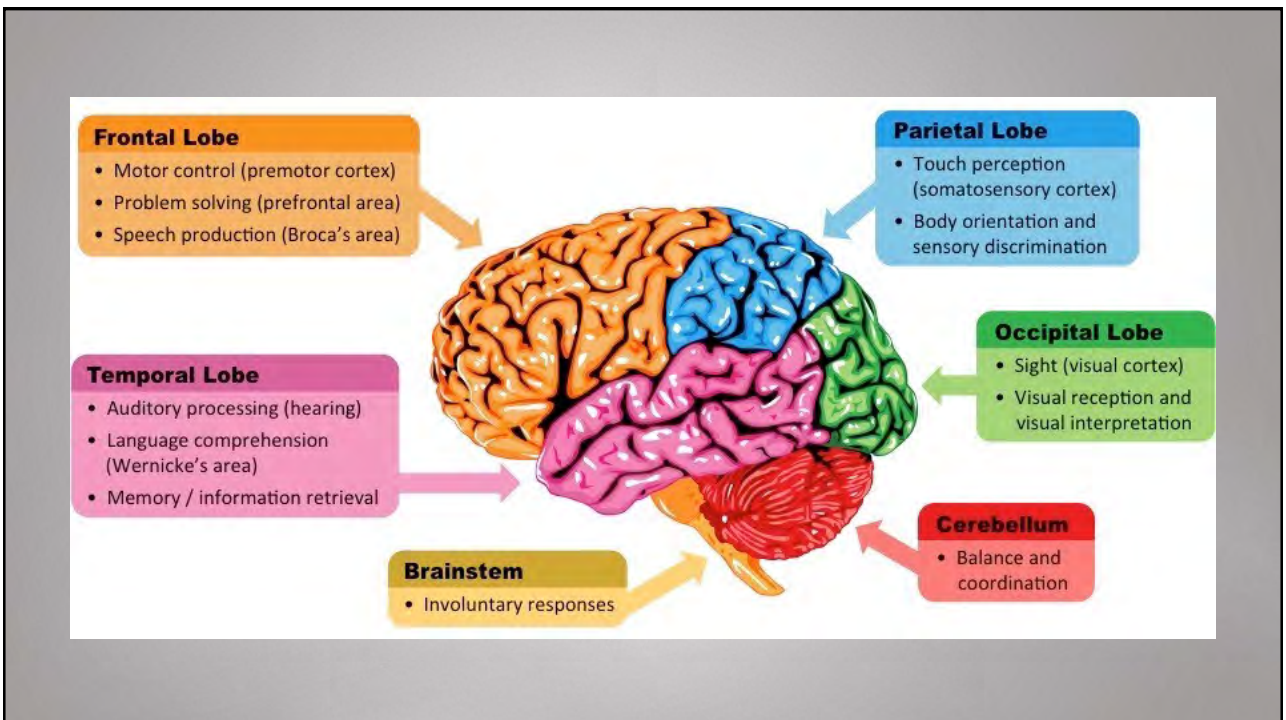
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## Neurological Processes

- Brain injury or no brain injury, communication among individuals is always impacted by how individual brains send and receive information.
  - Cells communicating together (axons, dendrites, neurochemical signals) impact our ability to communicate
  - Messages need to travel through multiple lobes of the brain to arrive at their intended destinations
    - Frontal
    - Temporal
    - Parietal
    - Occipital

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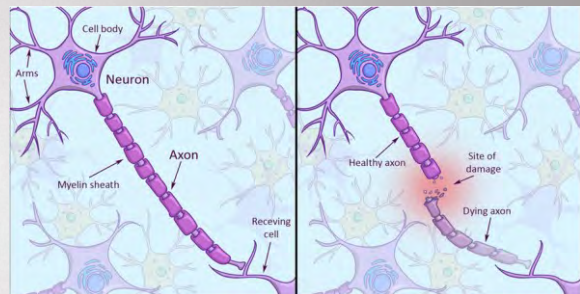


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## Road Closed

- ▶ Messages cannot pass where damage has occurred within the brain.
- ▶ Cell death cannot be reversed.
- ▶ More time and energy are required to send messages via other pathways than the original.
- ▶ **Neuroplasticity** allows us to build new pathways that perform a similar function as efficiently as possible. ☺

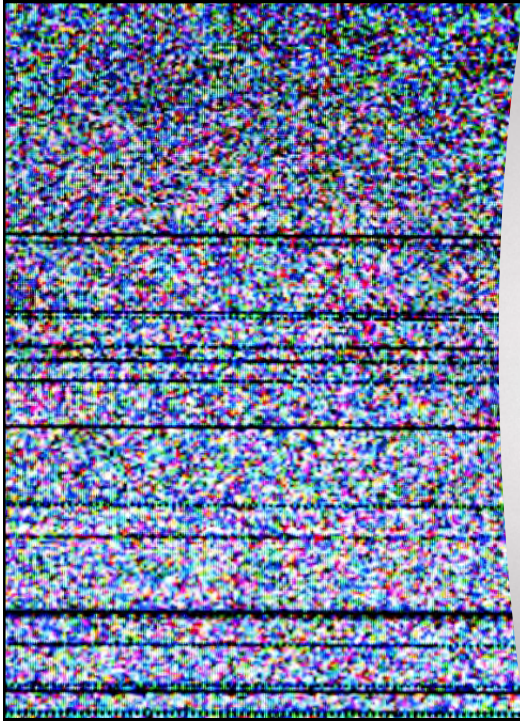


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## Injury results in “signal disruption”:

- **Aphasia- [think LANGUAGE]**
  - loss of the ability to understand language (spoken and/or written) or express language (spoken and/or written), caused by damage to the brain. (Mayo Clinic, 2019)
- **Apraxia- [think MOVEMENT]**
  - neurological disorder causing inability to perform a movement or task when asked, despite having the desire and physical capability to carry it out (not as a result of fatigue or impairment of structures). (ASHA, 2019)
- **Dysarthria- Weakness in the muscles used for speech, which often causes slowed or slurred speech.** (ASHA, 2019)
- **Language Impairment, receptive/expressive- a *disorder* in one or more of the basic learning processes involved in understanding or in using spoken or written language**

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## Signal Disruption

- **Cognition: attention, memory, information processing**
- **Executive functioning: planning, organization, self-monitoring, emotional control, inhibition, shifting, working memory, etc.**
  - All of these are skills required for participating in a communicative interaction.
  - Many of these skills are accessed within a fraction of a second of time, and many are used simultaneously in a typical conversation.

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## Brain Injury... chronic??

- **Historically, medicine and society have viewed brain injury as an EVENT (like a broken bone) that would eventually heal and recover with finality...**
- **HOWEVER, scientific data is supporting that this is the beginning of a chronic process that is progressive** (The Essential Brain Injury Guide, 2019)

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# Speech-Language Pathologists

A Part of the care team

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## Re-framing the importance of speech-language therapy

- **Because brain injury is a chronic disease, therapy is an INTEGRAL part of getting the most out of life and communication.**
  - **Impact of injury overflows into other areas within the scope of an SLP**
    - Cognition (memory, attention, processing speed)
    - Executive functioning (planning, organizing, getting started, emotional control, impulsivity, etc.)
    - Language (receptive, expressive, social)
    - Swallowing
    - Motor speech/articulation

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## Cognitive-communication therapy:

- **Restorative treatment (neuroplasticity)**
  - Target rebuilding skills diminished or lost to injury
- **Compensatory treatment (strategies)**
  - Help people better identify problems and communicate these to others effectively
- **Self-Advocacy**
- **Earlier help typically equals better outcomes but it's never too late! 😊**

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## The Cost of Impaired Communication Post-Brain Injury

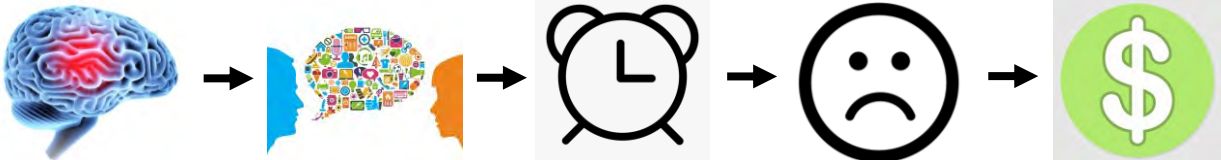
1. Brain Injury Occurs

2. Difficulty perceiving, understanding, expressing physical or mental health symptoms/concerns

3. Late care, Prolonged symptoms, improper/inadequate treatment

4. More emergent, more severe, and more numerous problems arise

5. Greater FINANCIAL, PHYSICAL, & EMOTIONAL costs to the individual & society



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## “But my speech is fine...”

- It is common for communication difficulties to be subtle or confused for other problems.
- SLPs have a unique understanding about expressive and receptive language and how these are impacted by cognition and executive functioning skills.
- High functioning individuals can be complex, presenting with more subtle impairments that have a significant life impact.

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## Where SLPs can be found:

- **Private Practice**
  - Post-acute; outpatient care
  - Pediatric or adult populations
- **Hospital**
  - Acute; inpatient, some outpatient
- **Skilled nursing/transitional care**
  - Post-acute, some outpatient
- **School**
  - Return to learn

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## How do I obtain therapy?



Tell your doctor about problems experienced that would lead you to believe you may need therapy.



Ask for a referral from your doctor.



Google SLPs in your area! Call a practice to refer yourself. Some practices will call to obtain orders from your doctor if your insurance requires it.



If in school, talk to a counselor, school nurse, trainer, on-campus health center, etc.

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## Communication Barriers & Strategies

Support tools for individuals, caregivers, & providers

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## Communication Barriers

- **Sensations** are amplified, leading to overwhelm
  - Lights are too bright
  - Sounds are too loud
  - Taste and touch can be affected
  - Pain component (headaches, other physical injuries)
- **Energies** are low, leading to extreme fatigue
  - Healing requires more energy than the brain is typically expending
  - Everyday tasks require more energy than usual because of using alternate neural pathways
  - May seek solitude to recover energies



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## Communication Barriers, continued

- **Emotions**
  - More emotionally labile
  - Stronger emotional intensity
  - Inverse relationship between emotions & cognition (emotions ↑ = cognition ↓)
- **Impulsivity (broken filter)**
- **Psychological/Psychosocial factors**
  - Secondary or exacerbated mental health diagnoses (should see mental health professional) are complicating factors
  - Isolated from others while recovering
  - Personality changes
- **Slow processing speed**
  - May still be processing first question when you've moved on to the third. They need more time.

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## Communication Barriers, continued

- **Complex symptoms**
  - May be difficult for others to interpret; “you look fine”
- **Chronic**
  - Ongoing challenges and possible ongoing changes in functioning
  - Day to day can be variable with symptoms
- **Insight and Awareness**
  - Insight for general impairments can be poor
  - May not be accurately interpreting verbal/nonverbal signs from others
  - **Poor self-monitoring** may lead to a lack of awareness for when a communication interaction has not gone well
    - May not ask for repeats when needed
    - May not apologize when would normally be appropriate
    - May not catch errors in speech when content does not make sense

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## Strategies: Expressive Language

- **Verbal Expression**
  - *Symptoms*
    - Impulsive talking, interrupts
    - Gives rambling answers, takes a long time to get to the point
    - Difficulty organizing ideas and expressing primary concerns
    - Difficulty finding the right word
  - *Strategies*
    - Allow additional time for word finding. Provide the beginning sound of the word if you know what it is.
    - Restate the question if the individual is off topic and remind them that they still have not answered the question
    - Write question down so it is seen to serve as a cue to stay on topic
    - Encourage circumlocution (describe it)



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## Expressive Language, continued

### • Written Expression

#### • *Symptoms*

- Slow writing
- Proper sequencing for writing is difficult. There may be multiple errors with grammar, spelling, etc.
- Difficulty holding thought long enough to get it onto paper
- Poor note taker
- Fine motor problems

#### • *Strategies*

- Visual organization of thoughts (i.e. outline)
- Smart pen
- Voice recorder/Dictation software
- Use electronic spell check/grammar supports



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## Strategies: Receptive Language

### ▶ Auditory Comprehension

#### ▶ *Symptoms*

- ▶ Difficulty following directions
- ▶ Becomes confused with lengthy instructions or conversations
- ▶ Can't determine key points or filter information, everything heard seems to have equal importance
- ▶ Easily overloaded

#### ▶ *Strategies*

- ▶ Use direct and to the point language
- ▶ Do not talk quickly
- ▶ Ask patient to repeat their understanding of the discussion
- ▶ List the keys points and actions that were discussed visually
- ▶ Take notes



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## Receptive Language, continued

- Reading Comprehension
  - *Symptoms*
    - Difficulty with visual processing system (see double, can't scan, dizziness)
    - Can't remember what was read, must reread
    - Difficulty following long passages
    - Reading errors, skip words, phrases or lines
    - Can't recognize key facts
  - *Strategies*
    - Audiobooks
    - "little and often" rule- read a small amount of information and then summarize
    - Make sure the time of day and environment is conducive to the task



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## Strategies: Attention & Memory

- *Symptoms*
  - Highly distractible, not focused (drawn to visual stimuli or minor sounds)
  - Poor concentration; loses train of thought during conversation
  - Forgets events or appointments
  - Information is simplified and the person is still not comprehending written or auditory information
  - Mentally fatigued by end of task, work, or appointment
  - Unable to reiterate topics or key points of a discussion
- *Strategies*
  - Reduce distractions (close window, blinds, turn off lights or TV, earplugs)
  - Summarize main points of conversation and provide in a written format so it can be taken home
  - Alarms, reminders, planner
  - Plan for a doctor's appointment or meeting, write down the things you want to share to stay on track

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## Strategies: Insight & Awareness

- **Symptoms**

- Appears to choose the present over the future
- Consistently inconsistent
- Makes the same mistakes over and over
- Cannot foresee how strengths and weaknesses factor into performance for tasks
- Unable to predict how much time and energy is required to complete tasks
- Trying to do things the way he/she used to before injury

- **Strategies**

- When discussing a particular topic, ask the individual to write successes and challenges. Add your honest, direct feedback once finished.
- Talk about communication and the circumstances surrounding optimum communication
- Think about thinking
- Be kind but direct and clear when providing feedback

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## Executive Dysfunction

■ Planning ■ Organization ■ Initiation ■ Inhibition ■ Shifting ■ Self-monitoring ■ Working Memory ■ Emotional Control ■ Time Awareness ■ Goal-directed persistence ■ Problem Solving ■ Reasoning ■ Judgement

- **Symptoms**

- Doesn't follow through with instructions
- Can't organize ideas (verbal and written)
- Reschedules or does not show for appointments
- Is late
- Difficulty weighing the pros and cons
- Can't accurately anticipate consequences of decisions
- Easily overwhelmed
- Difficulty prioritizing and scheduling tasks or overschedules
- Significant gap between performance and intellectual abilities

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## Symptoms, continued

- Paperwork may be overwhelming and too complex
- Interrupts during a conversation
- Inappropriate comments
- Does not monitor the quality of work in the moment, several errors
- Acts without thinking
- Makes decisions without considering the feelings of others
- Internal clock is broken (does not recognize the passage of time)
- Strong emotional reactions that come and go (i.e. defensive, angry, tearful). Too much information may cause emotional overload.

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## Strategies: Executive Dysfunction

- Use a planner
- ROUTINE!
- Provide/request written instructions
- Take additional time to plan for communication
- Process options in writing
- Journal/practice self reflection
- Manage energy and practice good sleep hygiene
- Ask for help with overwhelming tasks- "How would you start this?"
- Critical pause
- TTQA- turn the question around
- Give yourself time
- Use templates/tools for problem-solving and decision-making

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## Communication partners:

### *Strategies:*

- Establish eye contact
- Reduce distractions
- Reduce rate of speech
- Reduced phrase length
- Do not introduce another message until the first is understood
  - Ask questions to judge understanding
  - Ask for repetition back
  - Be aware of clues that indicate they missed the point
- Provide additional time to process information (sometimes silence is okay!)
- Show visuals/pictures
- Use gestures
- Facial expressions
- Patience



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## Thank you for listening!

**“Communication is about touching other people and having our lives touched by others.**

**Communication is about laughing and arguing, learning and wondering why, telling stories, complaining about what is or what isn't, sharing dreams, and celebrating victories.”**

-Light 1997

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