



Camp Bruce McCoy Training Guide 2022



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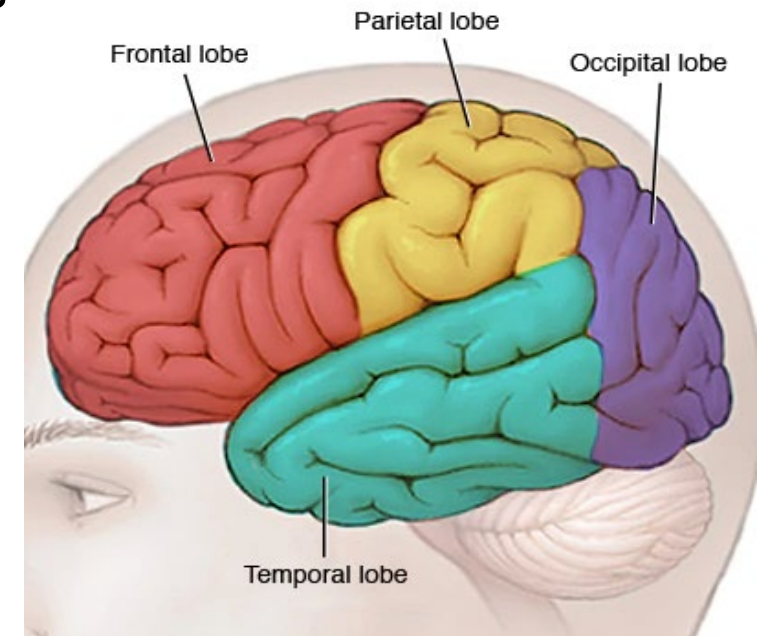
Module 2

A CLOSER LOOK AT BRAIN INJURY

Location is Important

- **Frontal Lobe** – cognition and memory; concentration; judgment and inhibition; voluntary motor control; production of speech
- **Parietal Lobe** – sensory information; body orientation; sensation/sensory information; recognition of self or of body parts
- **Temporal Lobe** – hearing and understanding speech
- **Occipital Lobe** - vision

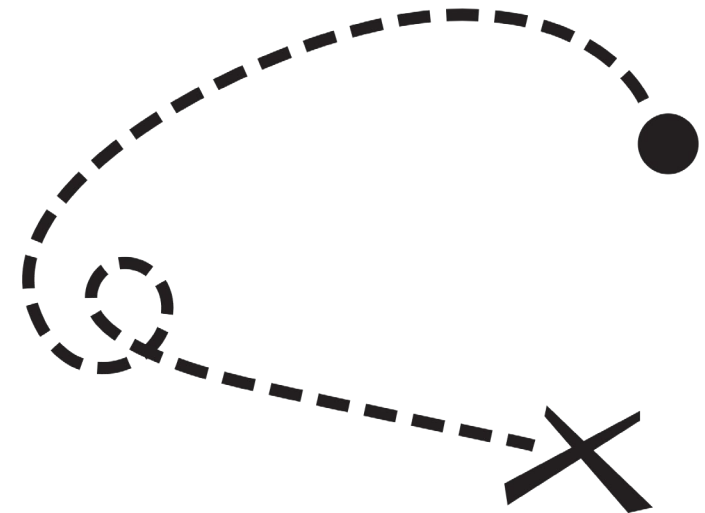
An injury to a specific lobe can lead to potential impairments in the functions listed above, and considering brain injuries often effect more than one lobe or area (even ones not listed here), many different functions could be affected as a result.



Depending on where it occurs...

... and what is damaged, brain injury involves a number of possible presentations— or ways in which the resulting deficits are demonstrated.

- Brain injury can affect many different aspects of a person's abilities, including:
 - **Physical function**
 - **Cognitive/mental function**
 - **Behaviors**
 - Habits and routines
 - Emotional function
 - Social participation
 - Likes, dislikes, desires, motivations, etc.
 - And much more.



A Very Important Disclaimer

- The purpose of the following information is to keep you aware of the **possible** areas where a camper may be affected by his/her brain injury and may need some assistance.
- As you read through each section, **don't expect every camper to need help with all of these skills in the same way or even at all.**
- Every brain injury is unique and every survivor of a brain injury will have their own unique strengths and weaknesses. The best way to learn more about these things is to get to know the campers and respectfully ask how you can be of help during their time at camp.
- Most importantly, a camper with a brain injury is a **person first**. They are not defined by their injury.

Physical Effects



- **Mobility** – the movement of limbs and/or trunk can be impaired

- Gross motor – “large” body movements

Examples

Having trouble walking, bending over, squatting, throwing a ball, standing from sitting, etc.

- Fine motor – “small” body movements, especially at the extremities

Examples

Having trouble writing, fastening buttons, cutting up food, opening packages, etc.

- **Coordination**– how different parts of the body move in relation to one another can also be impaired

- Ataxia – inability to coordinate different parts of body to complete an action

Examples

Kicking a ball at a specific target; holding a bow and shooting an arrow

- Dysmetria – inability to coordinate limbs according to visual information received

Examples

Bringing a utensil from plate to mouth, even while watching utensil

Physical Effects



- **Balance** – static (while stationary) and dynamic (while moving)

Examples

Having trouble steadying self after standing up; trouble maintaining balance while walking short or long distances; difficulty balancing on horseback

- **Strength** – in legs, arms, hands, core, and more

Examples

Having trouble gripping a toothbrush; difficulty pushing up from chair to stand; trouble holding open a door; pulling the string on an archery bow

- **Muscle Tone** – the tension present in a muscle at any given moment
 - Spasticity – the result of continuous muscle contraction, leading to stiffness and/or immobility of the muscle
 - Flaccidity – lack of muscle tone with inability to voluntarily contract
 - Plays a role in strength, mobility, and overall function during activities

Physical Effects



- **Touch Sensation** – can primarily go in two directions:
 - Hyper-sensitivity – heightened sensation that can be overwhelming or irritating
 - Numbness – reduced sensation or lack of ability to feel certain stimuli

Examples

Hypersensitivity to a certain food texture; inability to feel when clothing is too tight

- **Vision & Hearing Impairments** – in addition to touch, other notable senses that could be impaired include:
 - Vision – lack of vision, reduced clarity, discoordination between eyes, dizziness
 - Hearing – lack of hearing, reduced quality, tinnitus (ringing in the ear(s))
 - Over sensitivity to both light and sound

- **Endurance** – maintaining a level of strength or energy output over time

Examples

Trouble walking from one activity to the next without tiring; difficulty remaining awake, alert, and engaged until first opportunity for nap at 1:30pm.

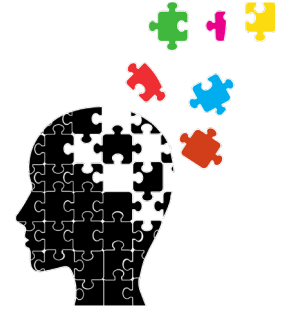
Physical Effects



- **Paralysis**

- Hemiplegia - Any degree of paralysis to one side of the body (right or left)
- Quadriplegia - Any degree of paralysis of all four limbs and partially of trunk
- Paraplegia - Paralysis of the legs

Any and all of these physical effects could significantly impact a camper's ability to fully participate in activities, likely requiring some sort of modification so that the activity is still accessible.



Cognitive/Mental Effects

- **Memory**

- Long-term – this often involves information prior to the person's injury

Examples *Their name, family members, where they live, former means of employment*

- Short-term – this particularly involves information received in recent days, weeks

Examples *What their camp schedule is for the day, other campers' names or names of staff, how to get back to the Ponderosa (living quarters)*

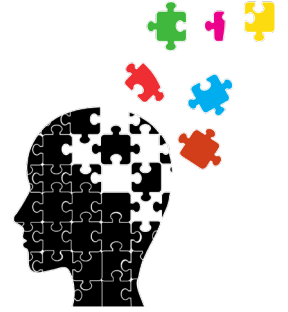
- **Attention & Concentration**

- Sustained – attention or concentration lasting over a period of time

Example *Difficulty paying attention long enough to hear instructions prior to an activity starting.*

- Divided – attention or concentration to multiple things at once

Example *Trouble focusing on eating meal while also talking to others at table and hearing distractions nearby.*



Cognitive/Mental Effects

- **Communication**

- Expression – being able to convey information to others; either the coherency of the speech or the information itself can be difficult to understand

Example *Having trouble expressing that he or she needs to use the restroom, sometimes resulting in an accident.*

- Comprehension – understanding the information conveyed to them from others

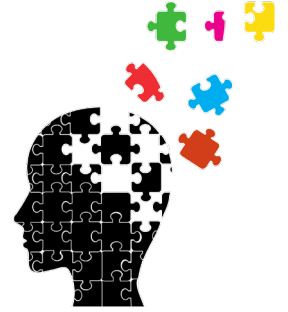
Example *Trouble participating in the scavenger hunt because he or she doesn't understand the instructions.*

- **Safety Awareness**

- Impulsivity – heightened tendency to act on a compulsion without considering consequences or safety risks

Examples *Getting up from wheelchair without locking brakes first; leaning over side of canoe to grab a tree branch.*

Cognitive Effects



- **Initiating (starting) or Terminating (ending)**

- A camper may have difficulty with starting an activity or thought process and may need help or guidance in beginning a task/getting set up for one. On the other hand, a camper may have difficulty finishing an activity or thought and can appear to perseverate on something for longer than necessary. Neither scenario is particularly abnormal and can be effectively managed with some guidance.

Examples

Inability to start a craft project without being handed the necessary materials and/or told how to start; inability to stop brushing teeth until asked if he/she is finished or until asked to stop.

- **Confusion**

- Some campers may/will become confused at times due to impaired memory, attention, and/or overall situational awareness. It is hard to predict how a camper will respond in a moment of confusion, so it is important to approach these situations calmly and with patience.

Behavioral Effects



- **Social Participation** – interacting in a social environment by engaging with camp staff as well as other campers; campers may have trouble with:

- Understanding social cues or social norms
- Communicating with an intention to collaborate

Examples

Trouble understanding when to wait one's turn in a conversation; difficulty or disinterest in working together with the group to create a skit.

- **Aggression & Emotional Regulation** – often a verbal or physical outburst or some display of dissatisfaction

- Understanding and controlling one's emotions can be difficult for some campers. An outburst may be the only way they know how to cope with an unpleasant or confusing situation

Examples

Getting angry or upset when he or she doesn't understand the rules of a game; having an outburst when he or she can't hear the movie over someone talking.

Behavioral Effects



- **Habits and Routine Adherence**

- Camp is almost certainly a big change of pace for many of the campers. For brain injury survivors, changes in their typical routine and daily habits will require a LOT of adjustment.

- While some routine changes are unavoidable and will require some adjusting

Examples

Waking up and getting ready at 6:30am instead of 8am; sharing arts/crafts materials with several other campers instead of taking them all; regularly putting on bug spray and sunscreen even if they do not at home.

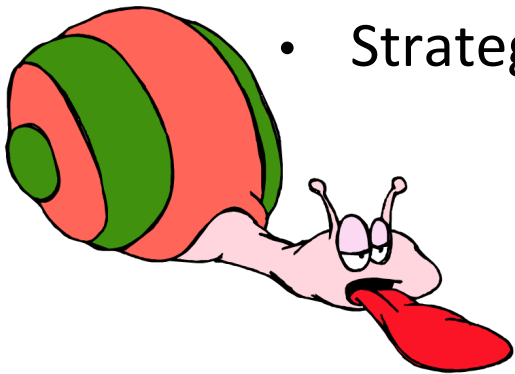
- ... other parts of a routine cannot be changed and we will help them adhere to them within reason.

Examples

Taking a nap at least once a day; completing bathroom hygiene in a particular order; cutting up food to a specific consistency.

Fatigue

- Camp is incredibly fun... and incredibly taxing on one's energy. Campers will get fatigued, you will get fatigued, and over the course of the week this will become more and more apparent.
- Every effect of brain injury-- physical, cognitive, behavioral, or otherwise-- can and will be exacerbated/worsened by fatigue.
- It will be partly our responsibility to not only help mitigate the effects of brain injury in allowing campers to participate, but also reduce (as much as we can) the effects of fatigue.
- Strategies for doing so will be discussed more in the next module - Module 3.



To sum it up...

- The four lobes of the brain are the frontal lobe, parietal lobe, temporal lobe, and occipital lobe – all containing different functions.
- Brain injury can “look” drastically different from person to person, depending on how it occurred, where it occurred, the severity of the injury, the person’s health status and prior capabilities, and more.
- Physical effects, cognitive effects, and behavioral effects of brain injury are some of the most common you will see while at camp.
- Fatigue can effect and worsen the many effects of brain injury, especially over time.

References

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Module 2 Quiz

Please return to the training homepage to take the Module 2 Quiz and complete a couple of brief survey questions that will help us continue to improve the training program.