# Brain Injury 102

## Workbook

# Pre-Quiz – Part 1

True or False.

1. All TBI are caused by an external blow to the skull.
2. Risk of a 2 <sup>nd</sup> TBI is 3 times greater than the first.
3. Stroke is a type of brain injury.
4. Open head injury always involves a skull fracture.
5. All secondary injuries to the brain involve bleeding.
6. "Mild," "moderate," and "severe" refer to levels of impairment after brain injury.
7. Effects of TBI can totally change a person's personality.
8. Some TBIs are localized to one area of the brain.
9. CSF can cause complications, including death.
10. The Rancho Los Amigos and Glasgow Coma Scale can predict levels of impairment.

Identify the type of brain Injury for which each statement is true: open head injury (O), closed head injury (C), or internal (I). May be more than one answer for each statement.

\_\_\_\_\_1. caused by blood vessel burst.

- impact from outside source.
   skull fractured.
   brain deprived of oxygen.
   impairment localized.
   meninges and mater are compromised.
- 7. coup-contrecoup actions cause damage.
- \_\_\_\_\_ 8. hemorrhaging may be involved.
- \_\_\_\_ 9. neurons and axons are sheared.
- \_\_\_\_\_10. biochemical cascade may occur.

# Pre-Quiz – Part 2

For each area, list 3 possible ways an brain injury may impact an individual.

#### Frontal Lobe:

- 1.
- 2.
- 3

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### Parietal Lobe:

- 1.
- 2.
- 3

#### Temporal Lobe:

- 1.
- 2.

3.

1.

**Brain Stem:** 

- 2.
- 3.

- Cerebellum:
  - 1
- 2.
- 3.

### Occipital Lobe:

- 1.
- 2.
- 3

- Define traumatic brain injury.
- List and describe the three types of TBI:
- 3. Explain the increased risk for second and third TBIs once an individual has a TBI.
- Explain coup-contrecoup.
- 5. What are secondary brain injuries?

- Explain the value of the Rancho Los Amigos and Glasgow Coma Scales.
- 2. Explain how the severity of TBI is measured.
- Explain the difference between "severity" labels and "impairments."
- Explain the major life activity areas that can be impacted by TBI.
- 5. Explain why the impact of no two TBIs are identical.

### Explain each term below:

1. Edema

1. Aphasia

2. Hydrocephalus

2. Agraphia

Anoxia

3. Dyscalculia

Biochemical cascade

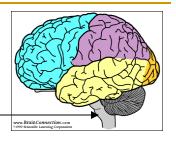
4. Agnosia

5. Seizure

5. Visual field cut

6. Post-traumatic amnesia

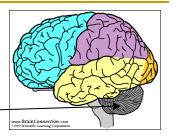
6. Perseveration



### **The Brain Stem**

Functions:

Possible Impairments:



### The Cerebellum

Functions:

Possible Impairments:

# wow Brist Comercion com

### **The Occipital Lobe**

Functions:

Possible Impairments:

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### The Parietal Lobe

Functions:

Possible Impairments:

# www.Bzialcomection.com

### The Temporal Lobe

Functions:

Possible Impairments:

# www.BrainComertion.com

### The Prefrontal Lobe

Functions:

Possible Impairments:

# Post-Quiz – Part 1

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# Post-Quiz – Part 2

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### Parietal Lobe:

- 1.
- 3

#### Temporal Lobe:

- 1.
- 2.
- 3.

- **Brain Stem:**
- 1.
- 3.

Cerebellum:

3.

### Occipital Lobe:

- 1.
- 3

# Post-Quiz – Part 3

#### Answer each of the following questions:

- 1. Define traumatic brain injury per the State of Vermont.
- 2. What do the labels "mild," "moderate," and "severe" indicate about a TBI?
- 3. Why is injury to the pre-frontal lobes so significant?
- Explain why an individual with significant impairment in all areas (cognitive, physical, social-emotional, etc.) may be labeled with a "mild" TBI.
- 5. Explain the impact of TBI on an individual:
  - Physically::
  - Socially:
  - Cognitively:
  - Emotionally:

# Learning Outcomes Checklist

# Can you: Identify:

- the basic types of brain injuries.
- the types of insults to the brain's anatomy.
- the potential effect(s) of the insult(s) to the anatomy of the brain.
- □ the labeling systems used to classify the severity of brain injuries.
- Define "traumatic brain injury."
- Explain:
  - how "severity" of brain injury is measured.
  - how "severity" and "impairment" do not measure the same impact.
  - typical sequelae based on where the insult(s) to the brain is(are).
  - ☐ impact of injury on an individual's life: Physical; Social; Emotional; Cognitive.