# Webinar 1 What is a Brain Injury?





These webinars were developed because as many as 60-70% of people who are in prison have had a brain injury, and the brain injury may have a lot to do with how they ended up in prison. We need to understand brain injury so that we can better help them adjust in prison and stay out of prison once they are released.



# In this webinar, we will cover:

 What is a brain injury and how severe can it be?
What are the effects of a brain

injury?



### What is a Brain Injury?

- There are many types, but the most common are <u>traumatic brain injury</u> (TBI) and <u>stroke</u>.
- The effects of stroke are usually more obvious, like difficulties with speaking or walking.
- The effects of TBI mostly involve behavior, so most of the time they are thought to be psychiatric problems, rather than neurological problems.



#### Traumatic Brain Injury (TBI)

TBI occurs when an external mechanical force causes brain dysfunction (Mayo Clinic).

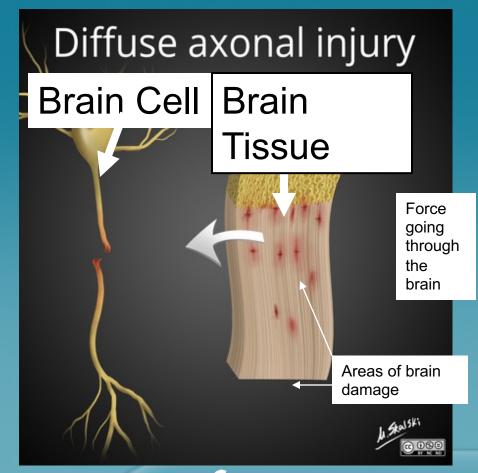
About 10% of the population of the USA has had a TBI.





#### **TBI Damages Brain Cells**

- TBI causes the brain tissue and brain cells to pull apart.
- Brain damage caused by TBI can't be seen most of the time on an X-ray or CT scan.
- Study the picture for a minute:





# Severity of TBI

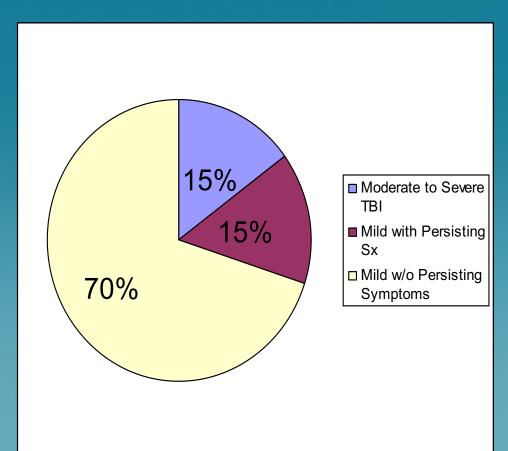
How long someone is unconscious or in coma is one way to determine the severity of the TBI.





# **Severity of TBI**

- 70% of TBI's are mild (concussion) and people usually recovery well.
- 15% of mild TBI's have problems indefinitely.
- 15% of TBI's are moderate-to-severe and people have life-long disability.





#### Concussions

- Multiple concussions are dangerous and can result in significant disability.
- Multiple concussions in childhood can prevent normal cognitive development.
- Concussions in people over the age of 50 have a bigger effect than younger people typically do.



#### Very Important Facts about TBI

- In a mild concussion, the person can be dizzy, have a headache and feel sick to their stomach, and be confused for a few hours and then be perfectly normal a week later.
- In a severe TBI, the person can have life-long disability because of problems with thinking and behaving appropriately.
- Many people with TBI aren't aware that their behavior has become inappropriate after their injury and don't know that they had a TBI.

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#### How does a TBI Affect You?

30% of people with a TBI will have longterm problems with their thinking (cognitive) and behavior!

The cognitive problems can include:

- Difficulties concentrating or paying attention
- Impaired memory and difficulty learning new things
- Problems planning, getting or staying organized
- Trouble thinking of words they want to say
- Trouble coming up with solutions to problems that seem obvious to others
- Thinking slowly



11

#### How does a TBI Affect You?

Many people with TBI have behavioral problems because of brain damage that looks like psychiatric problems.

- Difficulties with getting started on something or appearing unmotivated
- Being impulsive and doing things they know they shouldn't
- Saying things that are inappropriate
- Moods change rapidly and very quickly
- Frequent irritability, especially when tired or when there is a lot of noise and activity in the environment



#### How does a TBI Affect You?

Because of the Cognitive and Behavioral Problems after TBI, people are observed to:

- Withdraw and want to be left alone
- Develop psychiatric problems as a consequence
  - Anxiety and depression are the most common
  - Sometimes psychosis
- Experience frequent family problems
- Lose their job (as many as 50-60% might, after a TBI)

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#### What are the Main Points?

- TBI can be mild with no consequences or severe causing lifelong disability.
- Most of the problems after TBI are with thinking and behavior.
- These problems are typically not recognized as a consequence of the TBI.
- Most of the time, not even the person with the TBI recognizes that the TBI was the cause of their problem.



# In The Next Webinar, We Will Address:

- How many people in the DOC have TBI, and
- How does that effect their adjustment in prison



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