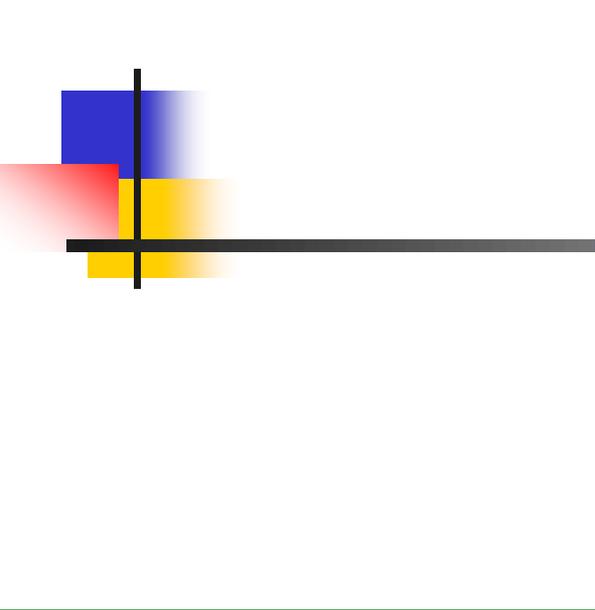
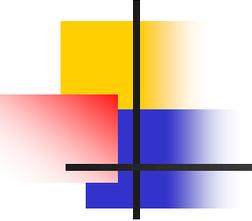

Case Management Society of America



Concussions... CTE... And Case Management

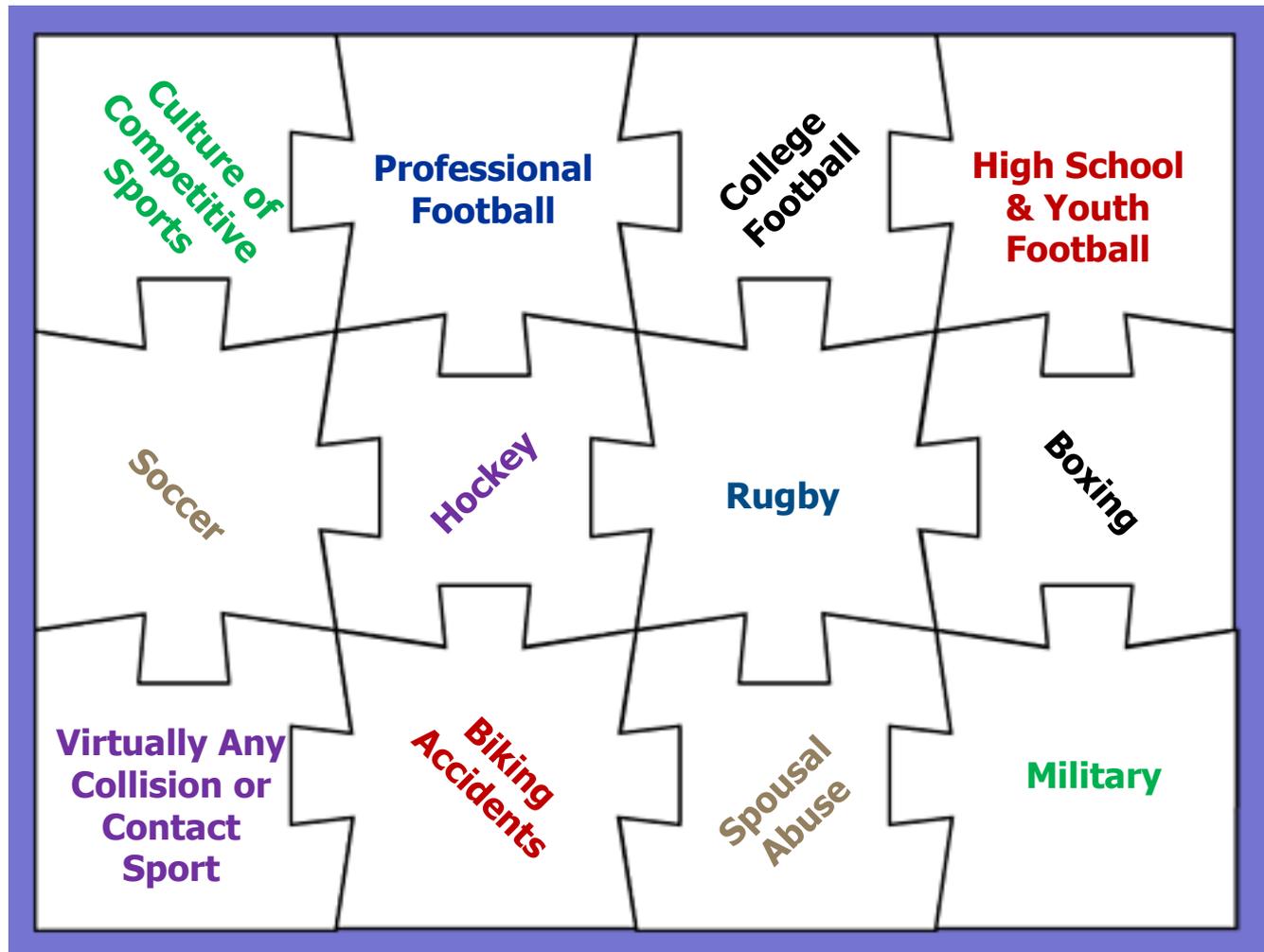
April 19, 2018

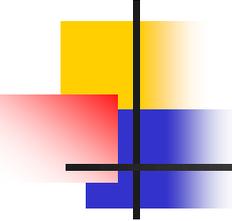


Source and Scope

CDC estimate:

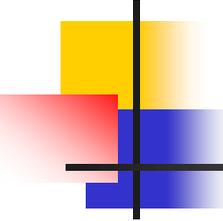
**3.8 Million
Annually**



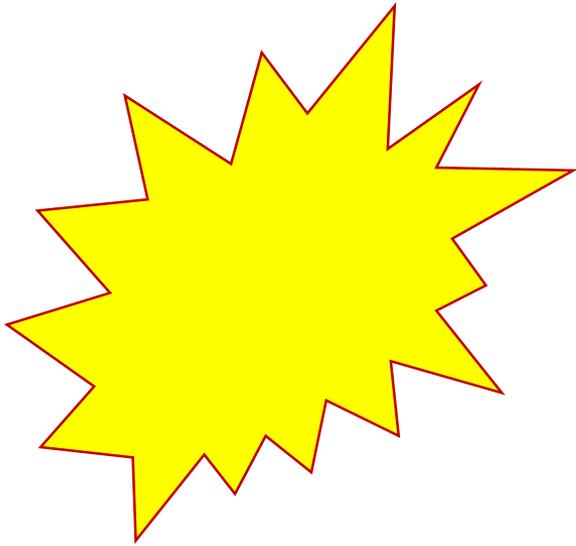


Medical History

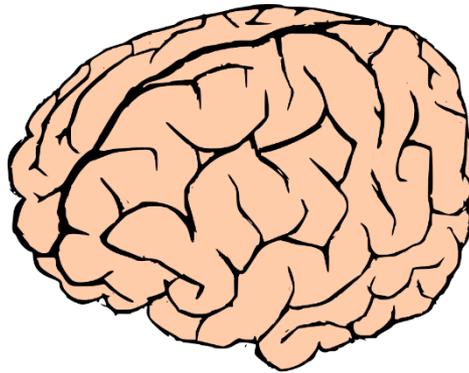
- Early 20th Century: Helmets Required
- 1928 Dr. Maitland: Pugilistic Dementia
- WWI & WWII: Shell Shock Syndrome
- 1957 Dr. Critchley: CTE Terminology
- 60s & 70s Dr. Reid: NWU Study
- Mid 60s: NCAA Rules & Regulations
- 2004: Dr. Amalu: Mike Webster
- 2010: NCAA-Dr. Hainline (1st medical staff)



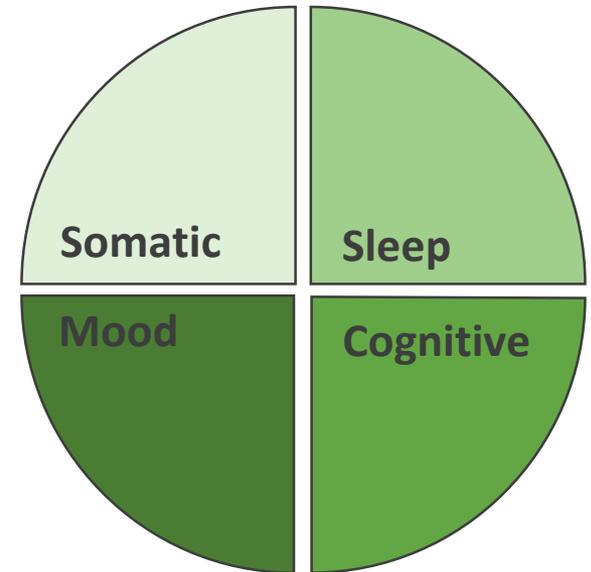
Concussion Mechanics



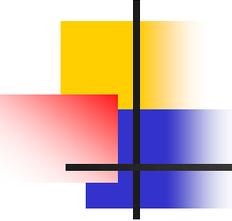
Mechanical Force



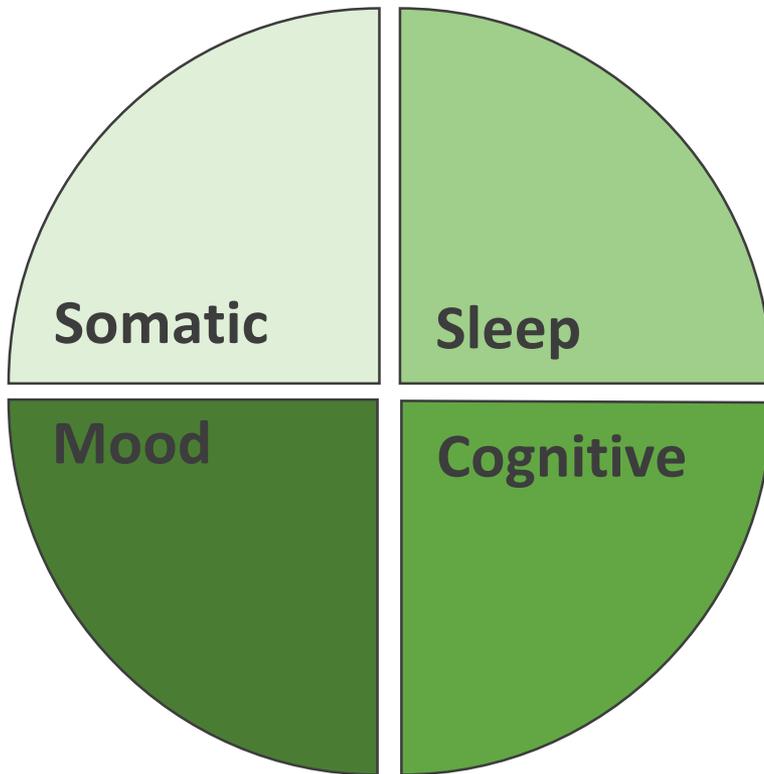
Applied to the
Brain



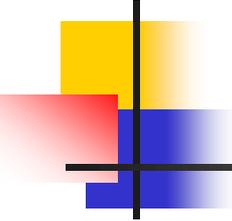
Resulting in
Symptoms



Symptoms



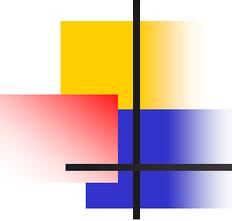
- Headaches, nausea, vomiting, dizziness, vision problems
- Sleep irregularity
- Mood/behavior swings
- Cognitive issues with memory and retention



Post Concussion Syndrome

WHAT IS PCS?

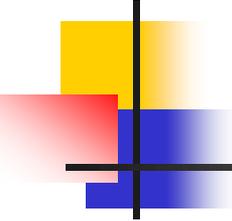
- PCS, is the persistence of concussion symptoms beyond the normal course of recovery... **longer than one or two months**
- The majority of concussion symptoms will resolve within about two weeks, and with proper recovery almost all dissipate within a month.
- Patients with PCS can experience concussion-like symptoms at rest or in response to too much physical or cognitive activity, often forcing them to withdraw from their usual physical, professional, and social lives.



Post Concussion Syndrome

ARE THERE ANY TREATMENTS FOR POST-CONCUSSION SYNDROME?

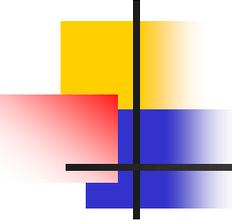
- Management of PCS is most often a matter of resting and allowing the brain's natural recovery process the time to heal the damage caused by a concussion.
- After a period of rest, doctors may prescribe active therapies to help alleviate symptoms of PCS, but there is no single treatment that is effective in all cases.
- At times one or two symptoms simply won't go away. PCS therapies identify the worst symptoms for an individual patient, and target them with specific therapies to reduce the symptoms or eliminate their cause.



Post Concussion Syndrome

HOW CAN I HELP SOMEONE SUFFERING FROM PCS?

- Patients with PCS often report feeling isolated. It is difficult for parents, friends and outside observers to see how disruptive PCS symptoms can be.
- This can often lead to observers dismissing or minimizing a patient's symptoms. "Are you still hurt?" or "Are you sure you're not faking to get out of school?"
- Help by understanding and being supportive. A person with PCS may no longer be able to handle the noise or crowds of a party, but they still need to spend social time with friends
- With severe symptoms expect someone with PCS to remove themselves from a loud, bright, crowded, or otherwise over-stimulating situation. Offer encouragement and support.



What Is CTE?

Chronic Traumatic Encephalopathy is a progressive neurodegenerative disease

- *tau protein – CTE*
- *beta amyloid protein – Alzheimer's*

Caused by repetitive trauma to the brain, including mild concussions and sub-concussive blows

Chronic traumatic Encephalopathy - CTE

- Formation of tau protein in brain that kills other brain cells
- Patients experience:
 - Mood/behavior changes, impulse control, aggression, depression, paranoia...crisis to crisis, spiraling out of control
 - Problems with thinking and memory, confusion, impaired judgment, decision making, dementia
- As of now, only diagnosed posthumously



Concussions vs. CTE



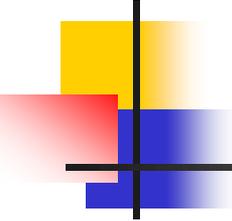
SYMPTOMATIC CONCUSSIONS

90% heal in two weeks



SUBCONCUSSIVE TRAUMA

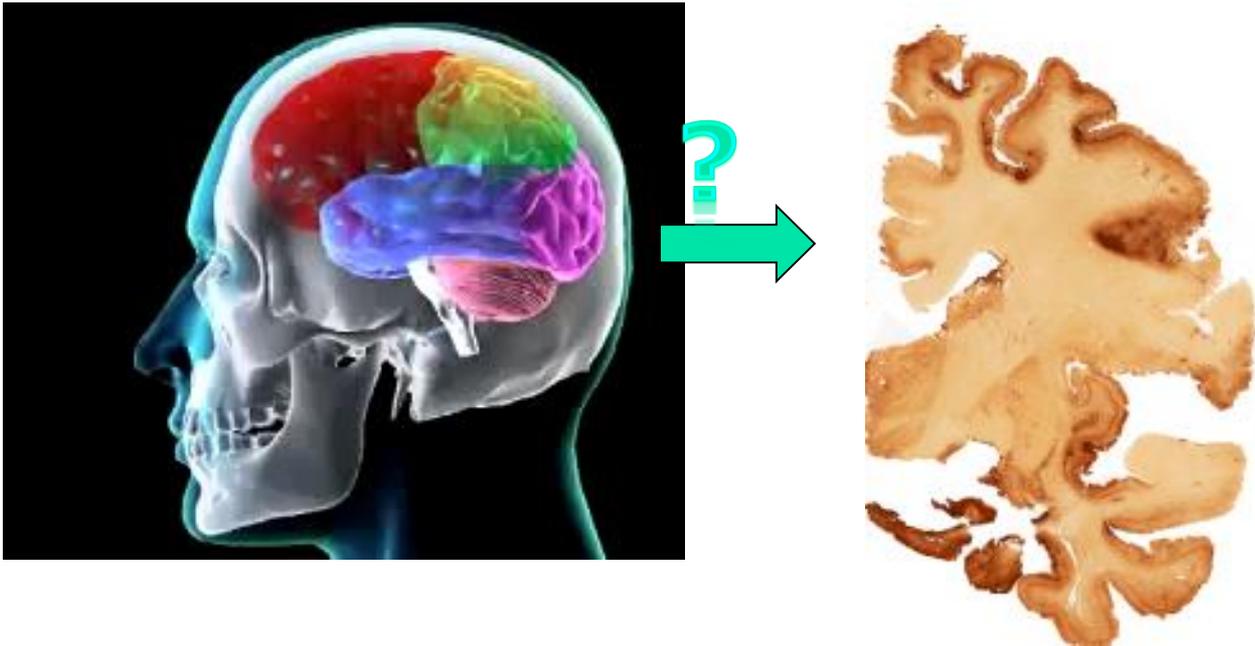
Repeated subconcussive trauma
contributes to development of
CTE



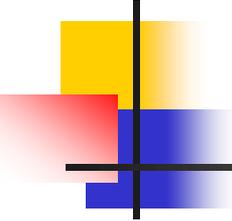
Concussions vs. CTE

- Anyone can get a concussion
 - Caused by single mechanical force to the brain
- CTE has only been seen in patients with a history of repeated exposure to brain trauma
 - Caused by years of regular, repetitive brain trauma

Neurodegeneration?



Significant Brain Shrinkage over Time



Dynamic Behavioral Decline

SOCIAL WITHDRAWAL

PERSONALITY DYSFUNCTION

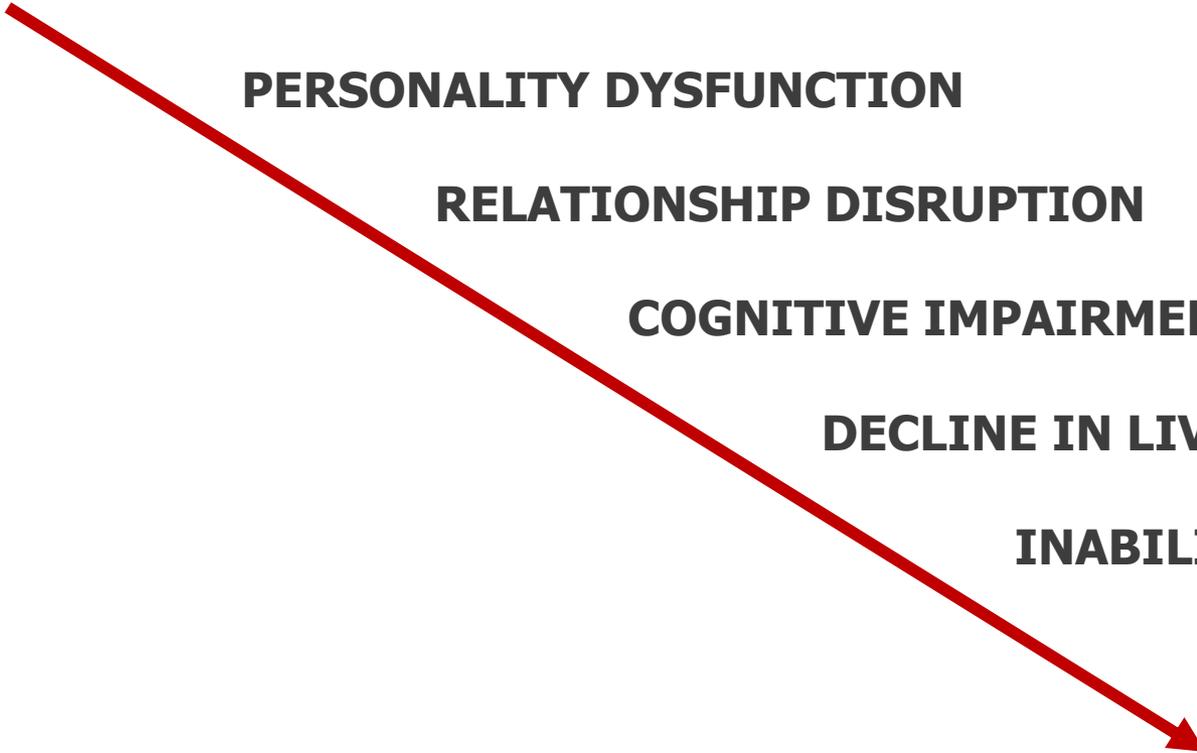
RELATIONSHIP DISRUPTION

COGNITIVE IMPAIRMENT

DECLINE IN LIVING STANDARD

INABILITY TO FUNCTION

HOSPITALIZATION



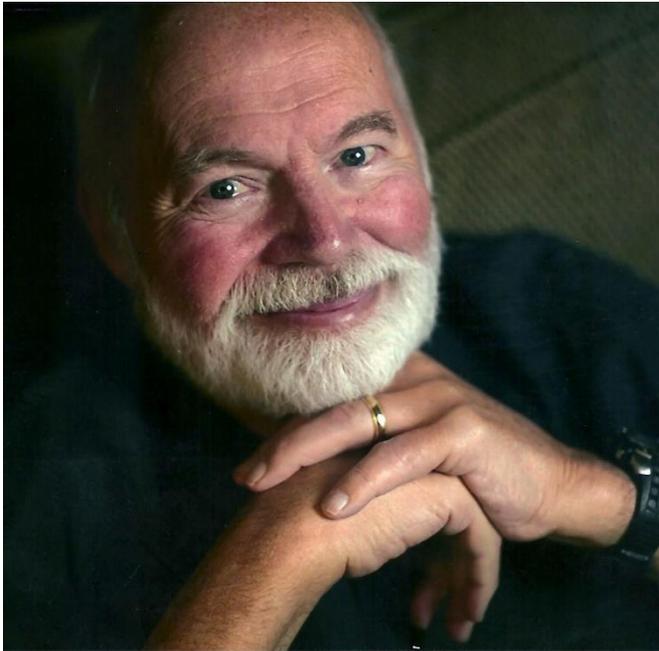
Victim Profiles



DAVE BEHRMAN
11/09/41 - 12/09/14

- College & professional football
- Married & father
- Businessman
- Symptoms
 - ✓ Secretive behavior
 - ✓ Balance issues
 - ✓ Depression
 - ✓ Confusion
 - ✓ Memory loss
 - ✓ Lack of motivation
- Destructive on relationships

Victim Profiles



MIKE PYLE
07/18/39 - 07/29/15

- College & professional football
- Married & father
- Businessman
- Symptoms
 - ✓ Rage and temper
 - ✓ Mean-spirited
 - ✓ Judgmental
 - ✓ Deep stage of withdrawal
 - ✓ Angry communication
 - ✓ Depression
 - ✓ Confusion
 - ✓ Memory loss
- Destructive on relationships

Victim Profiles



CHARLES "BUBBA" SMITH
02/28/45 - 08/03/11

- College & professional football
- Businessman & Actor
- Single
- Symptoms
 - ✓ Reclusiveness
 - ✓ Balance issues
 - ✓ Depression
 - ✓ Confusion
 - ✓ Judgment issues
 - ✓ Disinhibitive behavior
 - ✓ Memory loss
 - ✓ Planning issues
- Pulled back from relationships

Victim Profiles



JOHN BELL

05/17/51 - 03/31/16

- College football
- Youth counselor & teacher
- Married & father
- Bipolar & ADHD diagnosis
- Symptoms
 - ✓ Risk oriented
 - ✓ Anger & irritability
 - ✓ Binge drinking & drugs
 - ✓ Loss of physical activity
 - ✓ Hurtful comments
 - ✓ Blame & fault-finding
 - ✓ Memory loss
 - ✓ Lack of motivation
- Destructive on relationships
- Psychotic break

Victim Profiles



STEVEN DUDOWITZ
08/24/60 - 06/13/16

- College football
- Married & father
- Businessman
- Symptoms
 - ✓ Substance & alcohol abuse
 - ✓ Anger & explosive rages
 - ✓ OCD mannerisms
 - ✓ Impulsivity
 - ✓ Secretive behavior
 - ✓ Disinhibitive behaviors
 - ✓ Depression
 - ✓ Confusion & anxiety
 - ✓ Memory issues
- Destructive on relationships

Victim Profiles



RYAN HOFFMAN
07/15/74 - 11/16/15

- College football
- Married & father
- Job instability & homelessness
- Symptoms
 - ✓ Headaches & loud noises
 - ✓ Flashing lights
 - ✓ Antisocial - fights & arrests
 - ✓ Hard drugs
 - ✓ Childlike reasoning skills
 - ✓ Common sense & judgement
 - ✓ Confusion
 - ✓ Memory loss
 - ✓ Lack of drug management
- Psychological disorders, organic brain issues, drugs and peer group influences
- Destructive on relationships

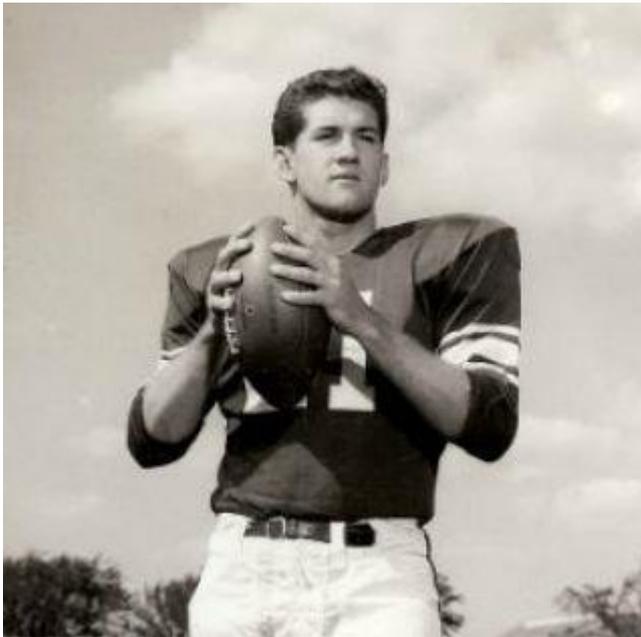
Victim Profiles



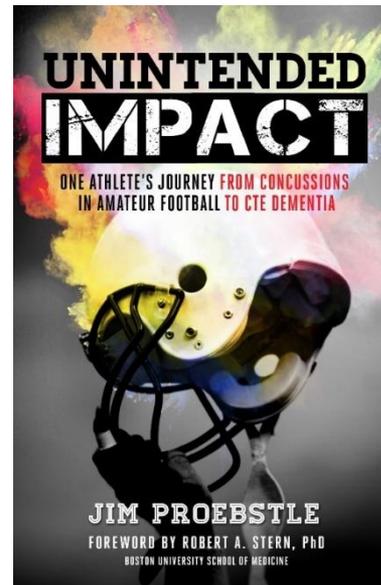
JOHN POLONCHEK
01/01/28 - 01/26/15

- College football
- Coaching career
- Married & father
- Symptoms
 - ✓ Withdrawn
 - ✓ Motor skill issues
 - ✓ Mental & cognitive decline
 - ✓ Less verbal-word search
 - ✓ Confusion
 - ✓ Long term memory loss
 - ✓ Lack of motivation
- Alzheimer's vs CTE

Victim Profiles

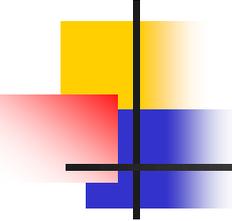


DICK PROEBSTLE
06/08/42 - 05/17/12



A Case Management Study

FOREWORD BY:
Robert A. Stern, PhD
Clinical Core Director BU CTE Center
Boston University School of Medicine



Dynamic Behavioral Decline

SOCIAL WITHDRAWAL

PERSONALITY DYSFUNCTION

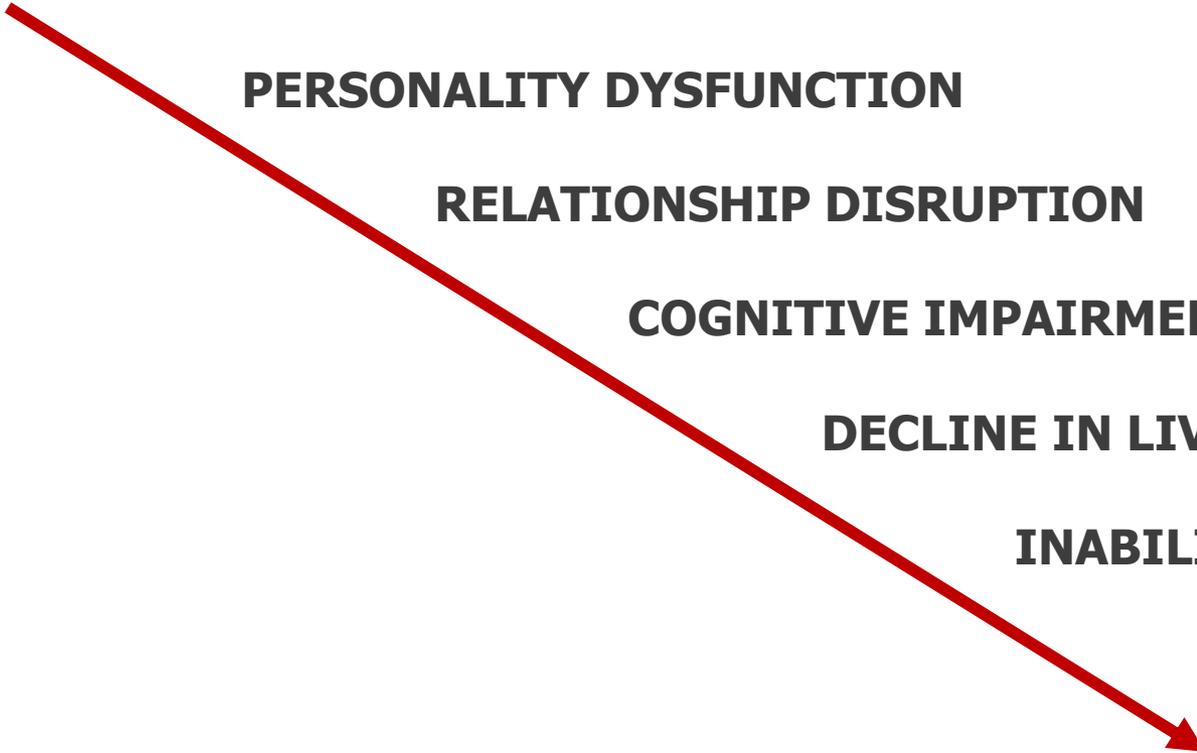
RELATIONSHIP DISRUPTION

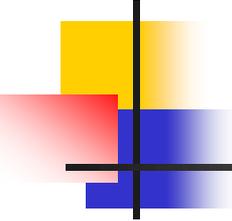
COGNITIVE IMPAIRMENT

DECLINE IN LIVING STANDARD

INABILITY TO FUNCTION

HOSPITALIZATION





Living with CTE

WHAT TO MONITOR?

WRITE THINGS DOWN:

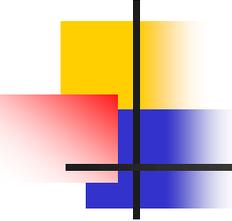
Writing things down can help you be more productive and maintain a sense of control over your life.

DEVELOP A ROUTINE:

Creating structured environment, planning tasks to complete and goals to accomplish can help with creating sense of stability.

CONTROL IMPULSIVE BEHAVIORS:

Be cognizant of unhealthy habits like gambling, overspending money, using alcohol, drugs, or other addictive substances to cope with problems.



Living with CTE

WHAT TO MONITOR? (CONTINUED)

SELF-REGULATION:

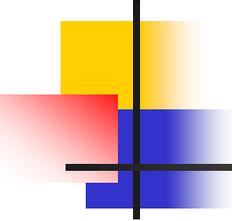
Managing emotion, anxiety, and stress is an important and learned skill. Practice relaxation techniques like deep breathing, meditation, or counting to 10 to help ensure your emotions don't get the best of you.

IDENTIFY THE SUPPORT SYSTEM:

Reaching out to family and friends and asking for help is **NOT** a sign of weakness. Is the support system functioning to the benefit of the patient?

SEEK HELP IN TIMES OF CRISIS:

If you are having thoughts of suicide, call the Suicide Hotline at 1-800-273-8255. Suicide is a permanent solution to a temporary problem. You can get through it, but it's difficult to get through alone.



What Can Parents Do?

AS PARENTS...

WILLINGNESS:

Make sure our children are playing because they want to play.
(informed consent?)

ABILITY:

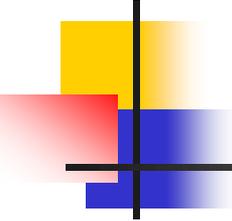
Are they physically prepared and able to play.
<14 years old: Flag football...> 14 years old: Tackle football

COACHES CREDENTIALS:

Check out the coach and be involved enough to know what kind of program and coaching philosophy is influencing your child.

CLASSROOM PERFORMANCE:

Playing sports is a privilege, subject to the accomplishment of the child's best efforts in the classroom.

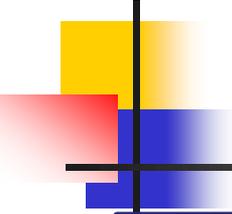


CTE Research

You can help accelerate research on CTE risk factors and pathways to effective treatments by enrolling in research studies. Boston University Medical Center research programs supported by Concussion Legacy Foundation include the:

- **Brain Donation Registry**
- **LEGEND study** at the Boston University Alzheimer's Disease and CTE Center
- **DIAGNOSE CTE Research Project**. Brain Donation Registry members will be invited to future research studies as they become available.

For more information relating to the world of sports, post concussion impact syndrome and CTE check out www.concussionfoundation.org. or contact Taylor Platt (617-414-1193) www.diagnoseCTE.com



Thank you

Books by Jim Proebstle

Unintended Impact: One Athlete's Journey from Concussions in Amateur Football to CTE Dementia: Non-fiction account of the tragedy and destruction of a star athlete's life as a result of concussions. (also available on Amazon ebook)

Fatal Incident: A WW II historical fiction story of conspiracy, espionage and human emotions based on a true story of an unresolved military air disaster in Alaska.

In the Absence of Honor: Conspiracy, power, greed and love are center stage in this story of Native American corruption in casinos.

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email: prodyne1@att.net

website: jimproebstle.com