BRAIN TRAUMA

LEADING CAUSES*

- FALLS  41%
- CRASHES  14%
- BLOWS  15%
- ASSAULTS  11%
- OTHER  19%

2.5 MILLION Cases reported yearly in the United States:
- Die  50,000
- Hospitalized  280,000
- Military*  24,833

*Blasts are a leading cause of TBI for active duty military personnel in war zones.

DIAGNOSIS:

COMA No response to sensory stimulation (system-wide impairment)

DELIRIUM Reduced awareness, impaired ability to focus, and/or shift attention

AMNESIA Impaired episodic memory, including orientation and autobiographical memory loss

DYSEXECUTIVE SYNDROME Impairment of goal-directed behavior

MAY REFLECT DAMAGE TO:

SALIENCE NETWORK DIRECTS ATTENTION TO SALIENT EVENTS Coordinates behavior and regulates emotion

DEFAULT MODE NETWORK INTERNAL FOCUS OF ATTENTION Maintains memory, enables one to envision the future

CENTRAL EXECUTIVE NETWORK EXTERNAL FOCUS OF ATTENTION Involved in planning, judgment and decision-making

PROPOSED INTERVENTIONS:

- Salience Network training and brain stimulation
- Physical fitness training

- Default Mode Network training and brain stimulation
- Physical fitness training

- Central Executive Network training and brain stimulation
- Physical fitness training

For more information: Report: Brain-injured patients need therapies based on neuroscience

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