

# Newsletter issued by Forensic Nursing, Inc. At Your Service



JUNE / JULY 2009



Mary Jane Barrett, M.S., R.N.

Nurse Consultant

Certified Case Manager

Certified Legal Nurse Consultant

Certified Medical Investigator III



*In summer, the song sings itself.  
... William Carlos Williams*

13 O'Brien Avenue  
Whitefish, MT 59937  
Phone: (406) 257-8658  
Fax: (406) 257-8553  
Email: [mjb@mjnurse.com](mailto:mjb@mjnurse.com)

[www.mjnurse.com](http://www.mjnurse.com)

## TRAUMATIC BRAIN INJURY [TBI]..... is the third leading cause of death in the United States.

TBI is *caused* by an external physical insult to the brain that may result in a diminished or altered state of consciousness that can also result in impairment of cognitive or physical abilities and a disturbance of behavioral & emotional functioning. It is estimated that approximately 80,000 people in the U.S. experience long-term disabilities related to TBI each year, meaning more than 2% of the U.S. population is currently living with disabilities that resulted from TBI. Although this is a small percentage, this group accounts for 48.3 billion annually in medical costs and up to 40% of annual payouts for commercial insurance groups. For people aged 38 years or younger TBI is the leading cause of death. Major causes of TBI: 1) MVA 2) Falls 3) Assaults 4) Sports injuries. Most common profile for a TBI patient is: young, single male, & over half test positive for high alcohol or illicit drugs. TBI is divided into two distinct phases of injury:

- 1) The actual physical insult to the brain, or the primary brain injury
- 2) Secondary brain injury, which is the result of complications and Brain (cerebral) ischemia.\*

Cerebral ischemia\* after TBI may be due to a combination of hypoxia, hypotension, hypoperfusion\*\*increased intracranial pressure, electrolyte imbalance or infection. *The extent that cerebral ischemia will have on short & long term cerebral function is one of the most important factors affecting outcomes after a severe TBI.*

\*Brain ischemia, also known as cerebral ischemia, is a condition in which there is *insufficient* blood flow to the brain to *meet metabolic demand*. This leads to poor oxygen supply or cerebral hypoxia and thus to the death of brain tissue or cerebral infarction ischemic stroke. It is a *sub-type of stroke* along with subarachnoid hemorrhage & intracerebral hemorrhage. Ischemia leads to alterations in brain metabolism, reduction in metabolic rates, and energy crisis.

\*\*Hypoperfusion is decreased blood flow through an organ...in this case the brain.

....Care Management 2007

### Brain Injury safety website @:

<http://faculty.washington.edu/chudler/brainfit.html>

This site offers a great visual educational format for kids called *Neuroscience for Kids*. This site offers links to other information about brain injury and protecting your head.

This site is also a good for employer safety/risk managers to develop safety programs for employees. The information is clear and simple. This site offers a newsletter and search site.

Safety is always a *people issue* teaching employees, children and adults to *THINK* about what action is safe.....or isn't.