

## Pathology of the Nervous System with Considerations for the Physical Therapist: Traumatic Brain Injury

### Course Description:

Traumatic brain injury (TBI) affects brain function as the result of external physical force. Many persons are left with lifelong disabilities that prevent return to pre-injury lifestyles. Clients with TBI frequently require the skill and expertise of the Physical Therapist and Physical Therapist Assistant to maximize function. This course presents an overview of the patient with traumatic brain injury, providing information on pathogenesis and clinical manifestations of TBI. Commonly used scales are provided to assist the therapist in using standardized language to describe levels of response, cognitive and behavioral disturbances. Content outlines basic medical management and provides treatment implications for the therapist for acute and long term rehabilitation of the patient with TBI.

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### Course Objectives:

Course Participants will be able to:

- A. Define Traumatic Brain Injury (TBI)
- B. Describe incidence and risk factors for TBI
- C. Describe pathogenesis of TBI including:
  1. Vascular changes
  2. Parenchymal changes
  3. Compressive damage
- D. Describe clinical manifestations of TBI including:
  1. Concussion
  2. Levels of consciousness
  3. Cognitive and behavioral impairments
  4. Pain
  5. Cranial nerve damage
  6. Motor deficits
  7. Heterotropic ossification
- E. Describe medical management of TBI including:
  1. Diagnosis
  2. Treatment for
    - a. Acute needs
    - b. Subacute needs
    - c. General rehabilitation considerations
  3. Prognosis

- F. Describe Implications for the Physical Therapist with respect to
1. Acute management of the patient with TBI
  2. Long-term rehabilitation of the patient with TBI
  3. TBI in children

**CEU Approvals:**

For information on specific state approval of this course, refer to the *On.Line PT CEUs* "About State Approvals" web page.