

Pathology of the Nervous System with Considerations for the Physical Therapist: Traumatic Spinal Cord Injury

Course Description:

Traumatic injury is the most common cause of adult spinal cord injury (SCI). Within a matter of seconds, highly active persons may become dependent on others or on assistive devices to perform even the most basic activities of self-care. This course offers the Physical Therapist and Physical Therapist Assistant with information on traumatic SCI. The topics addressed include: incidence and etiological factors; clinical manifestations with American Spinal Injury Association charts and grading scales for reference; information on diagnosis and treatment options; prognosis and treatment implication for the therapist based on PT Preferred Practice Patterns.

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Course Objectives:

Course Participants will be able to:

- A. Describe incidence and risk factors for traumatic SCI
- B. Define and describe etiological factors for traumatic SCI
- C. Describe pathogenesis of trauma to the spinal cord including:
 1. Neuronal damage
 2. Synaptic dysfunction
 3. Blood flow changes
 4. Syringomyelia
- E. Describe clinical manifestations of traumatic SCI including:
 1. Level of injury
 2. SCI syndromes
 3. Changes in muscle tone
 4. Autonomic nervous system changes
 5. Musculoskeletal changes
 6. Respiratory complications
 7. Cardiovascular conditions
 8. Metabolic conditions
 9. Pressure ulcers
 10. Bowel and bladder control
 11. Sexuality
- F. Describe diagnostic process for traumatic SCI

- G. Describe treatment for traumatic SCI including:
 - 1. Emergent care
 - 2. Strategies for spinal cord repair
 - 3. Fetal cell transplants
 - 4. Management of complications
 - 5. Pain management
- H. Describe prognosis for traumatic SCI
- I. Describe implications for the therapist with respect to PT preferred Practice Patterns

CEU Approvals:

For information on specific state approval of this course, refer to PT On-Line Courses "About State Approvals" page.