Spinal Cord Injury

• Epidemiology
  – 30-40 million per year
  – 10,000 new cases per year

• Etiology
  – Motor vehicle accident: 44.5%
  – Falls: 18.1%
  – Violence: 16.6% (and increasing)

Spinal Cord Injury

• Classification
  – Paraplegia/Tetraplegia
  – ASIA Impairment Scale
  – ASIA Motor/Sensory
  – FIM – functional limitations

• Acute Care Management
  – Immediate spinal immobilization
  – Methylprednisolone within 8 hours of injury
Spinal Cord Injury

• Economic Consequences
  – Between $7.3 billion and $8.3 billion per year
  – A person with a high cervical injury at age 25 incurs lifetime costs of more than $3 million

• Rehabilitation Treatment
  – Systematic, intensive, coordinated team approach

Spinal Cord Injury

• Potential Complications
  – Deep venous thrombosis (47-100%)
  – Pulmonary embolism (3-15%)
  – Pressure ulcers (25% annual incidence)
  – Pneumonia
  – Autonomic dysreflexia (usually above T6)
  – Spasticity (78%) and Spasms (95%)
  – Heterotopic ossification (16-53%)
  – Gastrointestinal complications (e.g., impactions – 33%)

Spinal Cord Injury

• Potential Complications
  – Urinary tract infections
  – Chronic pain (69%, severe 33%)
  – Overuse syndrome (35-68%)
  – Post-traumatic syringomyelia (1-5%)
Spinal Cord Injury

- Capabilities and Considerations According to Level of Spinal Cord Injury (complete)
  - C1-C3
  - C4
  - C5
  - C6
  - C7
  - T1-T8
  - T9-T12

- L1-L2
- L3-L5
- S1-S5

Additional Resources and Information from the Web

- American Spinal Cord Injury Association (www.asia-spinalinjury.org)
- TIRR Spinal Cord Injury Research Program (www.tirr.org/research/?page=54)
- American Paraplegia Society (www.apssci.org)
Additional Resources and Information from the Web

- National Spinal Cord Injury Association (www.spinalcord.org)
- Christopher & Dana Reeve Paralysis Resource Center (www.paralysis.org)
- Paralyzed Veterans of America (www.pva.org)
- American Association of Spinal Cord Injury Psychologists and Social Workers (www.aascipsw.org)