

## Etiology, classification, and acute medical management

**Abstract:** This self-directed learning module highlights basic management and approaches to intervention – both established and experimental. The revised American spinal Injury Association classification (2000) of spinal cord injury (SCI) further defines the examination and classification guidelines. The incidence of traumatic SCI remains at approximately 10,000 case per year, with 32 years the average age at injury. Initial management includes establishment of oxygenation, circulation (mean blood pressure >85mmHg), radiographic evaluations for spine instability, intravenous methylprednisolone, and establishment of spinal alignment. Prevention measure for medical complications include pressure relief for skin, thromboembolism prophylaxis, prevention of gastric ulcers, Foley catheter drainage to prevent urine retention, and bowel care to prevent colonic impaction. Nontraumatic SCI from spinal stenosis, neoplastic compression, abscess, or multiple sclerosis becomes more common with aging. Experimental treatments for SCI include antibodies to block axonal growth inhibitors, gangliosides to augment neurite growth, 4-aminopyridine to enhance axonal conduction through demyelinated nerve fibers, and fetal tissue to fill voids in cystic spinal cord cavities. Early comprehensive rehabilitation at a SCI center prevents complications and enhances functional gains.

**Overall Article Objectives:** To summarize the comprehensive evaluation and management of a newly injured individual.

**Key Words:** ASIA classification; Examination; Rehabilitation; Spinal cord injuries; Treatment.

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