

## Recent Advances In Management Of Spinal Fracture

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Spinal fracture is a common traumatic injury in both developing and underdeveloped nations. In North America, the incidence of spinal injuries is more than 160,000 every year (*el-Khoury GY 1993*). The thoracolumbar junction is the most commonly affected with 50-60% affected the transitional zone (T11-L2), 25-40% affected the thoracic spine and 10-14% involved the lower lumbar spine and sacrum (*Hu R 1996*).

The concept regarding the classification and management options in thoracolumbar fractures has been evolving in the recent year. Recent advances include the introduction of a new fracture classification i.e. AOSpine Thoracolumbar Spine Injury Classification System has provided a great help in management and decision making i.e. conservative or surgery (*Vacarro 2013, Grogery S Schroeder 2015*). Surgical options for thoracolumbar fracture consist of anterior vs. posterior approach. Scientific data still lacks to support the selection of one surgical technique as advantageous over the other. In posterior approach, the decision of applying short segment vs long segment fixation will be mainly depend on the stability of the fracture itself. Nowadays, anterior vertebral stability can be easily reconstructed by using one of the techniques of vertebral augmentation i.e. transpedicular intracorporeal bone grafting, vertebroplasty and kyphoplasty, intracorporeal filling with hydroxyapatite or calcium phosphate and etc.

Recent advances in Minimally Invasive Spine Technology i.e. percutaneous pedicle screws, has revolutionized the management of thoracolumbar spine fracture. (*Zhang W 2016*) This safety of this new technique has been shown to be safe in Asian patients despite having a smaller morphometry (*Kwan MK 2016*). Minimally Invasive Stabilization (MIST) has been shown to have less operating time, less blood loss, faster return-to-home, and fewer complications i.e. infection.

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