

## عنوان مقاله:

Low Lumbar Fractures: Unique Biomechanics and Treatment Options

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#### خلاصه مقاله:

Background and Aim: Acute lower lumbar spinal fractures (L4 and L5) can cause major neurologic damage and mechanical instability. The ultimate surgical method for the management of unstable lower lumbar spine fractures Methods and Materials/Patients: Online search databases including Google scholar databases, PubMed and Ovid was performed using the keywords: Low lumbar, fractures, spine trauma, biomechanics, classification, anatomy, spinopelvic alignment, non-operative and surgical treatment options. Finally, about 47 related studies were identified and reviewed. Results: The L4 and L5 vertebra and related discs contribute to 50% of the lordosis in the lumbar area. Fracture of the trapezoidal body of the fifth vertebra can considerably decrease this and change the L4-L5 and L5-S1 biomechanics. The lower lumbar spine, in contrast to the thoracolumbar junction, is secure by the pelvis and the robust musculature. There is great controversy about the treatment of lumbar burst fractures without neurologic deficit. The surgical indication and optimal procedure may be influenced by numerous aspects such as the severity of signs and symptoms, the amount of loss of vertebral body height and the involvement of the spinal canal, and finally, the stability of the posterior spinal components. Conclusion: There is no consensus on what establishes the paramount treatment for low lumbar burst fractures. Conservative care has been related to acceptable outcomes for patients with a burst fracture which are neurologically intact. In more severe injuries, spinal decompression and stabilization via a posterior or anterior approach are based on the surgeon's preference. For lower lumbar burst fractures or fracture-dislocations of the lumbosacral junction with neurologic injury, posterior decompression and .stabilization, and a period of rest and bracing for the preservation of lumbar lordosis are appropriate

# كلمات كليدى:

Low Lumbar, Fractures, Biomechanics, Treatment options

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