Eldoa Encyclopedia: I

Idiopathic Scoliosis

The relationship between adolescent idiopathic scoliosis and visual system function provides important insights for Eldoa application in this population. Research reveals that individuals with Cobb angles exceeding 15 degrees demonstrate measurably altered visuo-oculomotor functions, including increased saccadic latency that correlates with curve severity. This finding highlights how spinal alignment changes distant from the cervical region can still significantly impact oculomotor control, supporting Eldoa's whole-spine approach rather than focusing solely on the curved segments. The mechanism likely involves altered proprioceptive input from the spine affecting central nervous system integration of postural and visual information, creating a complex interplay between structural deviation and functional deficit.

Eldoa treatment considerations for scoliotic patients require significant modification from standard protocols. The segmental approach must respect existing curve patterns rather than attempting aggressive correction that could destabilize compensatory mechanisms the body has developed. The focus shifts from structural correction to functional optimization, working to maximize available range within the constraints of the structural curves while preventing progression. The emphasis on proprioceptive enhancement through sustained holds may prove particularly valuable for scoliotic patients who often demonstrate diminished body awareness. Integration with bracing protocols requires careful timing to avoid interference with brace effectiveness while providing movement opportunities during brace-free periods. Long-term maintenance becomes essential, as the progressive nature of many scoliotic curves demands ongoing intervention to preserve function. The absence of specific research on Eldoa for scoliosis means practitioners must adapt general principles carefully, monitoring for any adverse responses while focusing on quality of life improvements rather than radiographic changes.

Impact Forces

The quantification of impact forces across different sports provides sobering perspective on the mechanical challenges athletes face and explains why interventions like Eldoa prove essential for career longevity. Football demonstrates some of the most extreme measurements, with blocking sled impacts generating 3,013 ± 598 Newtons of force transmitted through the spine in milliseconds. The cumulative effect of hundreds of such impacts during practice and games creates microtrauma that accumulates faster than natural healing processes can repair. Basketball landing forces reach even more extreme values, with measurements up to 1,066 pounds of peak force compressed into landing phases lasting mere fractions of a second. The cervical spine in football experiences compression forces up to 11.6 kilonewtons during head-first contact, approaching the catastrophic failure threshold of vertebral structures.