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Advanced Neuromuscular Therapy protocol for - Vertical Spinal Instability / Degenerative Disc Disease of Spine

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Vertical Spinal Instability and ensuing Degenerative Disc Disease of the spine, the pathological entity that persuades everyone in their lifestyle, irrespective of all treatment standards. Our lifestyle against gravity accumulates stress and strain signals all over the spine. The mechanotransduction and Mechano-coupling process converts these strain signals to osteophytes and traction spur at the level of vertebral bodies. At the facet level, deformation, translation, and hypertrophy of facets can occur. Concerning muscles, changes such as muscle fibrosis, shortening, fatty infiltration results in neuromuscular incoordination. The Intervertebral Disc, as a shock absorber, receives all signals and undergoes degeneration. All the above said pathological changes occur as a measure to correct the instability as a whole. The entire spine may undergo degeneration; osteophytes may overgrow and fuse to maintain stability and prevent neurological deficits. However, due to undue stress and strain signals transferred to the spine by occupational hazards, and strenuous activities, the spine instability worsens, which may result in neurological compromise. There are numerous surgical measures to stabilize the spine and many micro neurosurgical techniques to rescue neural structures. There are many conservative measures for spinal pain, but we still do not have a comprehensive protocol for treating degenerating disc disease of the Spine. Here we highlight advanced neuromuscular therapy protocol, starting from offloading spinal strains with the help of preventive measures (postural correction, ergonomics, and COG (Center of Gravity) correction). Treatment measure includes pain relief by easing the neural tension, followed by maintaining normal neuromuscular tone by appropriate stretching/strengthening exercises. During the recovery phase, most of the proprioceptive receptors of soft tissues (muscle, tendon, and ligament) are still inactive, and dysfunction persists. To overcome this dysfunction, recovery measures such as balance exercises and fascial stretches help complete pro-prioception recovery. To conclude, this protocol helps in controlling Spine Degeneration.

Biography

Ragurajaprakash is a Consultant Neurosurgeon at Royal Care Super Speciality Hospital in Coimbatore, Tamilnadu. He has completed his Doctor of Medicine (MD) from Kuban State Medical Academy, Russia. He was a member of the Royal College of Surgeons, MRCS (UK). He is also a Diplomate of the National Board, DNB (General Surgery). On the other hand, Ragurajaprakash is a Certified Neuromuscular Therapist, CNMT, Conway, USA. He did a Fellowship in Neuroendoscopy Surgery (Brain & Spine) in Jabalpur and Spine Fellowship program, Fujieda, Japan-2019. He has participated and presented his research works at various national and international conferences. He has published prominent researches in high-impact factor journals. He designed Advanced and Comprehensive Neuromuscular Therapy protocol for a healthy spine. Ragurajaprakash has conducted many brain training classes for the children to improve their brain performance and personality. He created a website www.Brainandspinesecrets.com, for public awareness which promotes Advanced and Comprehensive Neuromuscular therapy protocols for Brain, Spine, Mind, and Musculoskeletal dysfunction.

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