



The Lumbar Spine in Tennis

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Tennis players frequently complain of low back pain. Indeed, it is considered commonplace for players to encounter low back pain, but the cause of pain is often not determined. An eleven-year analysis of the US Open Tennis Championships revealed that out of 517 musculoskeletal encounters, 111 were for low back injuries. Thus, low back injuries represent over 20 percent of all musculoskeletal encounters during an eleven-year period at the US Open Tennis Championships. Approximately one-half of players presented with an acute lumbar strain. About 25 percent of players had a diagnosis of degenerative disc disease/lumbar spondylosis. Four players presented with an acute lumbar disc herniation, and 11 players were diagnosed with a recurrent lumbar disc herniation. Other diagnoses included recurring strain, facet locking and spinal tumour. For players with an acute lumbar strain, the more superficial erector spinae muscles are primarily involved.

For players with recurring lumbar strain, the multifidus muscles and other deep rotators are primarily responsible for the symptomatology. Players with lumbar degenerative disc disease most often suffer with an imbalance of musculature in association with their lumbar degeneration disc changes. Pure discogenic pathology is an unusual presentation among tennis players, at least at the US Open Tennis Championships.

A careful history and clinical examination usually reveal the source of the problem. The most definitive diagnostic study is an MRI of the lumbar spine, and this is indicated when the health of the lumbar disc or spine is in question. Treatment must have a long-term vision in mind, and this almost always includes a progressive lumbar stabilisation protocol. Whether the lumbar spine problem is from a genetic predisposition, from overuse, or from both, spine stabilisation is the most effective treatment we have to date for managing tennis players with lumbar spine injuries. A comprehensive spine stabilisation protocol is not simply about exercises, but also requires a good understanding of the individual player and his or her schedule. If effective periodisation is not part of the player's routine, then spine stabilisation by itself will be ineffective.