



# Honsberger Physiotherapy

## Back Injuries and Improper Biomechanics

*As an ongoing study at Honsberger Physiotherapy and Biomechanical Clinic, we are looking at a correlation between biomechanical imbalances and how they could potentially be a predisposing factor in people with mid and lower back injuries and general back pain.*

*Testing included structural and biomechanical examinations.*

*The primary purpose of this study was to determine the percentage of injured clients who were predisposed to injury or performance limitations due to structural and/or biomechanical faults (including pelvic imbalance, abnormal foot function, t-spine restriction and inflexibility). The sample to date includes 103 clients, 48 male and 55 female. Ages ranged from under 13 (4%) to over 45 (36%), with the majority of clients in the 19-45 (48%) range.*

1. Total # of clients with Pelvic imbalance: 90%

*Clients with back injuries who have pelvic imbalances: 100%*

2. Total # of clients with Abnormal foot function (resulting in abnormal pronation) : 57%

*Clients with back injuries who have Abnormal foot function: 64%*

3. Total # of clients with Restricted t-spine: 57%

*Clients with back injuries who have Restricted t-spine: 100%*

4. Total # of clients with Lack of Clavicle Rotation: 86%

*Clients with back injuries who have a Lack of Clavicle Rotation: 91%*

*This study demonstrates: 1) Structural and biomechanical problems are presenting, long before symptoms ever become apparent. The value of proper screening becomes clear 2) Pelvic imbalances and t-spine restrictions were present 100% of the time with people who had back injuries. This reaffirms the need for proper postural training including core stabilization in order to do even activities of daily living without pain, 3) Over-pronation continues to be a major factor in all types of injuries. Orthotics are highly recommended for performance and injury prevention where foot dysfunction exists.*

*Honsberger Physiotherapy's renowned biomechanical approach allows us to identify and eliminate serious predispositions to injury and performance limiting factors.*

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