

Whiplash Recovery Risk Factors

In 2009 there was a paper published by Walton et al in the Journal of Orthopedic and Sports Physical Therapy identifying risk factors for sub-optimal outcome in whiplash injured patients. A follow-up study was just released by the same authors identifying some additional risk factors which early on can help predict which population of patients may be left with chronic pain, the kind of pain that often result in permanent impairments. The current study is titled **Risk Factors for Persistent Problems Following Acute Whiplash Injury: Update of a Systematic Review and Meta-Analysis.** (*J Orthop Sports Phys Ther.* 2013 Jan 14). The authors identify 2 additional prognostic factors and further refine the 7 previous factors so that in total they identify 12 factors that assist predictively in how patients will fair with their injuries. Below are the factors they found to be predictive:

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| 1. <i>High baseline pain intensity (>5.5/10)</i> | 7. <i>Pre-injury neck pain</i> |
| 2. <i>Headache at inception</i> | 8. <i>Neck pain at inception</i> |
| 3. <i>Less than post secondary education</i> | 9. <i>High catastrophizing</i> |
| 4. <i>Non-use of seatbelt</i> | 10. <i>Female gender</i> |
| 5. <i>Lower back pain at inception</i> | 11. <i>Whiplash Associated Disorder (WAD) 2 or 3</i> |
| 6. <i>Neck Pain Disability Index >14.5/50</i> | 12. <i>WAD Grade 3 alone</i> |

The authors also looked at four additional variables which were found to show no predictive value. These included pre-existing headache complaints, rear-end collision, older age and collision severity. I found the lack of predictive value on some of these new variables interesting. It has been commonly accepted in the scientific arena that low speed rear impact collisions (aka. LOSRIC) have the most potentially damaging injury mechanism, perhaps due to lack of preparation. Age has also been demonstrated to be a confounding factor in many papers. For those of us that have treated patients with severe injuries but little vehicle damage, it was good to see a study that indicated that the collision severity had no significant bearing on the outcome of treatment. That finding alone will help diffuse the effect of photos that show no significant property damage.

None of this is extraordinarily earth shaking to those of us who see this everyday. However, it is nice to see it published in the scientific literature and in a respected journal. Another good lesson to take out of this study is that a patient's perception of the injury and level of sophistication (as measured by education) have a bearing on their outcome even though they are not physical factors. Patients who see the injury as "the end of the world" or lack the ability to understand the nature of the injury may have perceptual variables making them more likely to not recover.

Identifying these risk factors in a patient's initial evaluation and documenting them in the report is the responsibility of the primary attending doctor. It is the same doctors that will ultimately be responsible to opine on the outcome. All doctors and particularly those involved in the management of patients involved in medical legal matters must prepare for the potential unsatisfactory outcomes associated with the predictive factors. The doctors must do whatever they can to overcome the obstacles and, if unsuccessful, explain them to judges, jurors and other third parties that have need for the information.

The doctors at the Shaw Chiropractic Group are aware of these factors and are prepared to treat their patients (your clients) with the highest quality of evidence based care available anywhere. If you have any questions about this study or have a comment please contact us by email or via our blog located on our website.