UNDERSTANDING WHIPLASH INJURIES
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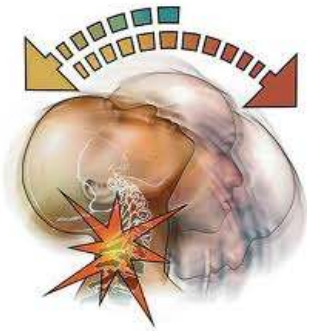
Whiplash is a common injury that can be experienced following a motor vehicle collision (MVC). There are more than 100,000 whiplash cases in Canada each year. The unique forces generated during these collisions can stress biological tissues and result in pain and decreased functioning for those affected. This article provides a review of whiplash specifically focusing on the mechanics of injury, the associated symptoms, and general guidelines for the evaluation of any accompanying injuries.

Although rear-end collisions are the most commonly reported mechanism of whiplash injury, an injury may also occur following side and head-on collisions. The forces generated from these types of impacts thrust the head (and to a lesser extent the entire body) back and forth, much like a snapping whip. Injury results because the body is unable to compensate adequately for the speed of head and torso movement from the acceleration forces generated at the time of impact. This will put stretch, compressive and shear stresses on biological tissues such as muscles, ligaments, joints and nerves. As a result, this can generate pain symptoms, and affect range of motion, strength, coordination, and balance. The onset of whiplash symptoms may immediately follow a MVC or may gradually develop over the first 24-72 hours. A later onset of symptoms does not necessarily indicate a more serious injury.

Neck pain is frequently associated with whiplash injuries. However, the whiplash mechanism may also cause injury and symptoms that include: whole body muscle pain/ache, jaw pain, referred arm pain, shoulder or other joint pain, mid back pain, low back pain, headaches, dizziness, and tinnitus. The term **WAD** (**W**hiplash **A**ssociated **D**isorder) encompasses all of these potential symptoms and is commonly used to grade the degree of injury present. Of the four Grades of **WAD**, Grades 1 and 2 represent the majority of whiplash cases.

Evaluation of whiplash injuries should include a proper medical history, along with a physical examination consisting of inspection, palpation for tenderness, range of motion, strength, neurological, orthopaedic and functional testing. Signs of serious injury, such as fracture, are usually evident in early assessments and may require further diagnostic testing such as x-ray, CT scan, or MRI. Chiropractors are healthcare professionals skilled in the diagnosis and treatment of whiplash injuries and are commonly involved in the management of **WAD**.



When an individual sustains a whiplash injury, injured tissues can become stiff and weak when they are not used, which can further exacerbate pain symptoms. Therefore, a return to daily activities after whiplash injury is extremely important for successful healing as extended rest may prolong recovery. Healing and a return to daily activities may be facilitated with active treatment and rehabilitative exercise prescription. Join us next month when we specifically take a closer look at the treatment and prevention of whiplash injuries. For more information, visit **www.nhwc.ca.**

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