Injury Briefing

A review of the latest studies from Dr. Michael D. Berry.

Smoking Worsens Pain of Auto Injuries

Following an auto collision, there are many factors affecting how patients heal from their injuries. Smoking is one factor that has been found to prolong recovery and worsen the pain of auto injuries. Recent research has shown that smoking worsens symptoms associated with a wide range of injuries commonly caused by auto collisions, from back pain to TMD to traumatic brain injuries.

Smoking and Brain Injuries

According to one recent study, smokers are more likely to suffer long-term effects from mild traumatic brain injuries (MTBI). Chronic smoking was found to affect neurocognitive function such as processing speed, memory measures, and visuospatial memory following MTBI. Greater duration and frequency of smoking was related to significantly reduced improvement in neurocognitive function following MTBI. These results suggest that chronic cigarette smoking should be considered a potential factor influencing recovery from traumatic brain injuries.

Smoking and Temporomandibular Disorders

Another recent study evaluated the impact on smoking on pain severity and other symptoms experienced by patients with temporomandibular disorders (TMD). The analysis, involving 3,251 patients with TMD, found that smokers reported higher pain severity, impaired movement, anxiety, depression, and sleep disturbances than nonsmokers. These patients are at higher risk for factors that could negatively impact the outcome of treatment.

Smoking and Musculoskeletal Conditions

Previous studies have also linked smoking with chronic pain syndromes such as fibromyalgia, sciatica, chronic neck pain, and chronic back pain, as well as with spinal disorders. Quitting smoking has been found to improve spinal pain associated with chronic conditions such as arthritis, sciatica, and lower back pain.

These findings support the need for smoking cessation support for patients being treated for auto injuries. Patients with brain injuries could also benefit from addiction treatment, since new research shows that TBI patients have a higher risk of drug and alcohol addictions.

Durazzo T, Abadjian L, Kinkaid A, Bilovsky-Muniz T, Boreta L, Gauger G. The influence of chronic cigarette smoking on neurocognitive recovery after mild traumatic brain injury. Journal of Neurotrauma 2013. [Epub ahead of print]

de Leeuw R, Eisenlohr-Moul T, Bertrand P. The association of smoking status with sleep disturbance, psychological functioning, and pain severity in patients with temporomandibular disorders. Journal of Orofacial Pain 2013; 27(1): 32-41.

La Costa Chiropractic
6986 El Camino Rd Ste F
Carlsbad, CA 92009

This publication is compliments of:

Dr. Michael D. Berry, D.C.
La Costa Chiropractic

To contact Dr. Berry,
call (760) 438-9548.

Dr. Michael D Berry
La Costa Chiropractic
6986 El Camino Rd Ste F
Carlsbad, CA 92009

For more information about our practice,
visit our website at
www.lacostachiropractic.com

Single Concussion Causes Structural Brain Damage

Think a concussion is just another mild injury? Think again. New research shows that even a single concussion can cause lasting structural damage to the brain.

Previous research has shown that mild traumatic brain injury (MTBI) can cause long-term symptoms in some patients. But this is the first study to document measurable volume loss after a concussion, pointed out Dr. Yvonne Lui, who co-authored the study.

To better understand the lasting impact of brain injuries, Dr. Lui and colleagues examined changes in the global and regional brain volumes of patients one year after a concussion. Using MRI scans, the researchers measured the patients' gray and white matter volumes, and correlated the results with additional cognitive and clinical measurements. The patients were compared with a group of healthy controls.

One year after the injury, MTBI patients showed signs of global and regional brain atrophy. The brain regions with the most significant volume loss were the anterior cingulate and the precuneal region. While the anterior cingulate has been tied to depression and mood disorders, the precuneal region is associated with higher-level thinking and executive function.

The study demonstrates that structural changes to the brain can occur after a single MTBI, even when conventional screening doesn't detect these changes. "This means that patients who are symptomatic in the long-term after a concussion may have a biologic underpinning of their symptoms," explained Dr. Lui in a press release.

Zhou Y, et al. Mild traumatic brain injury: longitudinal regional brain volume changes. Radiology 2013; March 12.

Radiology. Single Concussion May Cause Lasting Brain Damage. Press Release. March 12, 2013.