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ADJUSTMENTS MAY INFLUENCE ABDOMINAL MUSCULATURE

A novel study indicates that increased abdominal muscle function may be one benefit of spinal manipulation.

Researchers followed 9 patients with LBP of less than 16 days duration that did not spread distal to the knee.

According to the report, “lateral abdominal muscle thickness was assessed with the patient at-rest and while contracted during an abdominal drawing-in maneuver (ADIM) using [rehabilitative ultrasound imaging] RUSI. Measurements were taken before and immediately after spinal manipulation. Patients completed a 15-minute training session of the ADIM prior to assessment, to mitigate the potential for a learning effect to occur.”

Six of the nine patients demonstrated increased transversus abdominis muscle thickness during the ADIM postmanipulation. Additionally, transversus abdominis muscle thickness at-rest postmanipulation decreased for five patients. At-rest internal oblique muscle thickness decreased for four patients.

The study’s authors write: “This case series describes short-term changes in lateral abdominal muscle thickness post spinal manipulation. Although case series have significant limitations, including the fact that no cause-and-effect claims can be made, the decrease in muscle thickness at rest and the greater increase in muscle thickness during the ADIM postmanipulation observed in some of the patients could suggest an improvement in muscular function. Future research is needed to determine if increased muscle thickness is associated with improvements in pain and disability and to further explore neurophysiologic mechanisms of spinal manipulation.”

Journal of Orthopedic Sports Physical Therapy – August 2007;37:472-9.
www.jospt.org

CELL PHONES MAY CAUSE HEARING LOSS

Long-term use of a cell phone may cause inner ear damage and can lead to high frequency hearing loss, according to a new study.

According to research presented at the American Academy of Otolaryngology-Head and Neck Surgery Foundation’s Annual Meeting in Washington, DC, 100 people who had used mobile phones for over a year suffered increases in the degree of hearing loss. Furthermore, the study also discovered that people who used their phones for more than 60 minutes a day had a worse hearing threshold than those with less use.

High frequency hearing loss is characterized by the loss of ability to hear consonants such as s, f, t, and z, even though vowels can be heard normally. Consequently, people hear sounds but cannot make out what is being said.

The authors warn users of cell phones to look out for ear symptoms such as ear warmth, ear fullness, and tinnitus as early warning signs that you may have an auditory abnormality. They also suggest the use of earphones, which they found to be safer than holding a mobile phone up to the ears.

AAO-HNS – September 19, 2007.
www.entnet.org

CFS TIED WITH INTESTINAL INFECTION

Chronic fatigue syndrome (CFS) appears to be linked with a chronic enteroviral stomach infection, say scientists who studied stomach biopsy specimens of 165 patients with CFS and a control group.

In all, 82% of the patients had enterovirus, compared with 20% of controls.

Journal of Clinical Pathology – September 20, 2007;Epub. jcp.bmj.com

PREVIOUS STUDIES ON VITAMIN E ‘MEANINGLESS,’ SAY SCIENTISTS

Generations of studies on vitamin E may be largely meaningless, scientists say, because new research has demonstrated that the levels of this micronutrient necessary to reduce oxidative stress are far higher than those that have been commonly used in clinical trials.

In a new study researchers concluded that the levels of vitamin E necessary to reduce oxidative stress — as measured by accepted biomarkers of lipid peroxidation — are about 1,600 to 3,200 IU daily, or four to eight times higher than those used in almost all past clinical trials.

“The methodology used in almost all past clinical trials of vitamin E has been fatally flawed,” comments co-author Blaz Frei. “These trials supposedly addressed the hypothesis that reducing oxidative stress could reduce cardiovascular disease. But oxidative stress was never measured in these trials, and therefore we don’t know whether it was actually reduced or not. The hypothesis was never really tested.”

“What’s now clear is that the amount of vitamin E than can conclusively be shown to reduce oxidative stress is higher than we realized,” Frei adds. “And almost none of the studies done with vitamin E actually measured the beginning level or reduction of oxidative stress.”

“Only when we do these studies right will we answer questions about the value of vitamin E in addressing cardiovascular disease,” he concludes. “So far we’ve been flying blind.”

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www.elsevier.com/locate/freeradbiomed

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