Green Tea Combats Exercise-Induced Oxidative Damage

Consuming green tea protects against exercise-induced oxidative damage, according to a new study.* Oxidative damage, which results from metabolic activity and is increased following exercise, is linked to degenerative changes associated with aging and chronic disease.

Fourteen study volunteers participated. One group consumed green tea three times daily for seven days, while a control group did not drink green tea. Researchers then had the subjects perform a strenuous bench-press exercise and measured various blood markers for signs of oxidative stress before and after the activity.

The group who consumed green tea had significantly lower levels of blood markers that indicate oxidative tissue damage both before and after exercising. This group also had significantly higher post-exercise blood levels of glutathione, which is a key antioxidant, and greater blood antioxidant potential.

Green tea, a beverage rich in polyphenols, may thus offer protection against the oxidative damage incurred by athletes and everyone who exercises.

—Michael J. Hall, ND


Low Vitamin D Levels Linked With Depression

A new study shows for the first time that older people with low levels of vitamin D and elevated levels of parathyroid hormone (PTH, a hormone that regulates blood calcium levels) are more likely to be depressed than those with normal levels.*

In this study, Dutch researchers measured levels of 25-hydroxyvitamin D and PTH in 1,282 participants aged 65 to 95, of whom 26 were suffering from major depression and 169 from minor depression.

They found 25-hydroxyvitamin D levels to be 14% lower in depressed subjects (average: 19 ng/mL) than non-depressed subjects (average: 22 ng/mL). In both depressed and non-depressed participants, vitamin D was far below optimal ranges of 50-60 ng/mL of 25-hydroxyvitamin D of blood, indicative of how pervasive vitamin D deficiencies have become. Serum PTH levels were 33% higher in those with major depression compared with their non-depressed counterparts. Higher PTH can be caused by inadequate vitamin D status.

—Dayna Dye

* Hoogendijk WJ, Lips P, Dik MG, Doek DJ, Beekman AT, Penninx BW. Depression is associated with decreased 25-hydroxyvitamin D and increased parathyroid hormone levels in older adults. *Arch Gen Psychiatry.* 2008 May;65(5):508-12.

Common Class of Drugs Accelerates Mental, Physical Decline in Elderly

Anticholinergic medications, which are commonly used for conditions like overactive bladder, motion sickness, and asthma, may hasten functional and cognitive decline in older adults, according to new research.1,2 Anticholinergics selectively block receptors for acetylcholine, a neurotransmitter involved in motor function and memory.

A study presented at the American Academy of Neurology showed that healthy older adults using anticholinergic medication experienced a 1.5 times faster rate of cognitive decline than subjects not using the medications. Medications used to treat bladder disorders were the most problematic.1

A related presentation from the American Geriatric Society reported that older adults using anticholinergics demonstrated slower walking speed and were more likely to need help with activities of daily living compared with people who did not take the drugs. Taking one moderately anticholinergic drug simulated an extra three to four years of age.2

These findings dovetail with a recent study showing that older adults who used medications for dementia and overactive bladder had a 50% faster rate of functional decline compared with adults who only used medication for dementia.3

While anticholinergics can be useful medicines, physicians and patients should be aware that they can accelerate physical and cognitive decline.

—Dale Kiefer


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