

Magnesium Reduces Risk for Metabolic Syndrome

New research links increased magnesium intake to a reduced risk of developing metabolic syndrome. Magnesium helps regulate blood sugar levels, blood pressure, and heart rhythm, among other functions.¹

Northwestern University scientists followed more than 4,600 young adults for 15 years, estimating their magnesium intake and documenting the incidence of metabolic syndrome and its various components.² Metabolic syndrome was diagnosed according to standardized, government-recommended criteria.^{3,4}

After adjusting for lifestyle and dietary variables, subjects with the highest dietary intake of magnesium had the lowest incidence of metabolic syndrome, while those with the lowest magnesium intake were significantly more likely to develop metabolic syndrome.²

—Dale Kiefer

Melatonin May Protect Against Alzheimer's

Chinese researchers report that the "sleep hormone" melatonin protects the brain against several biochemical processes linked to the development of Alzheimer's disease.⁶

Melatonin levels decline as people age, but Alzheimer's patients experience even more dramatic reductions in melatonin. Alzheimer's disease is characterized by the formation of beta-amyloid plaques in the brain, along with neurofibrillary tangles composed of modified tau protein. Melatonin may protect against Alzheimer's by inhibiting beta-amyloid production and countering the modification of tau protein to its toxic form.

—Dale Kiefer



Ginger, Chili Peppers Slow Cancer Growth

The flavorsome culinary ingredients ginger and chili peppers contain chemicals that may stop cancer in its tracks, according to researchers at the University of Michigan and University of Pittsburgh.⁵

In laboratory studies, *gingerol*, an antioxidant compound in ginger, prevented ovarian cancer cells from growing by promoting apoptosis (programmed cell death) and autophagocytosis (a process in which cells digest themselves). Similarly, *capsaicin*, the chemical responsible for chili peppers' heat, inhibited the growth of human pancreatic cancer cells that were transplanted into laboratory mice.

—Dale Kiefer

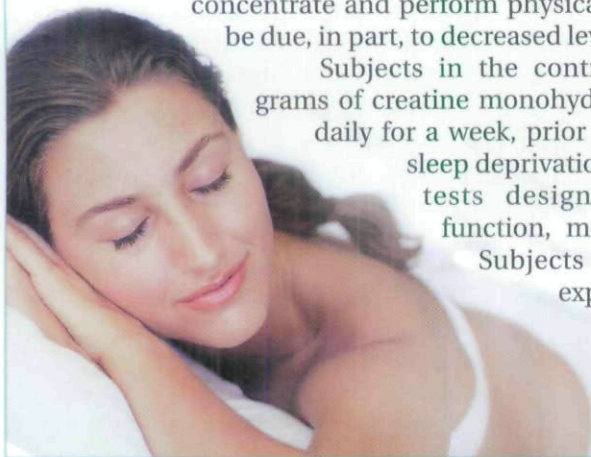
Creatine Mitigates Effects of Sleep Deprivation

Researchers report that creatine supplementation ameliorates the negative effects of sleep deprivation.⁷ Extended lack of sleep is known to stress the mind, affecting mood, memory, and the ability to concentrate and perform physical tasks. These deficits may be due, in part, to decreased levels of creatine in the brain.

Subjects in the controlled experiment took 5 grams of creatine monohydrate or placebo four times daily for a week, prior to undergoing 24 hours of sleep deprivation. They underwent various tests designed to assess cognitive function, mood, and motor function.

Subjects who had taken creatine experienced significantly less change in mood and cognitive function than those who took placebo.

—Dale Kiefer



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