

May 13<sup>th</sup>, 2009

*The present placebo-controlled, double-blind, balanced crossover study investigated the short-term cognitive and mood effects of caffeine in habitual users and habitual non-users of caffeine. Excessive consumption of caffeine, especially in sensitive individuals, can increase anxiety, impair sleep and fine motor control. Study evidence clearly shows that levels of caffeine consumed by most people have largely positive effects on mood, behavior, and cognitive abilities.*

## CAFFEINE IMPROVES MOOD AND COGNITIVE ABILITIES

Following overnight caffeine withdrawal, 24 habitual caffeine consumers and 24 habitual non-consumers received a 150 ml drink containing either 75 or 150 mg of caffeine or a matching placebo, at intervals of at least 48 hours. Cognitive and mood assessments were documented at baseline and 30 minutes after the drink. Assessments included the Cognitive Drug Research computerized test battery, two serial subtraction tasks, a sentence verification task and subjective visual analogue mood scales.

At the beginning of the study, there were no differences between the groups' mood and performance. Following caffeine, both groups showed significant improvements in simple reaction time, digit vigilance reaction time, numeric working memory reaction time and sentence verification accuracy. Both groups showed a reduction in self-rated mental fatigue and ratings of alertness. Habitual consumers tended to outperform non-users for rapid visual information processing false alarms and spatial memory accuracy. Separate analyses of each group's responses to caffeine revealed overlapping but different responses to caffeine. Caffeine tended to benefit consumers' mood more while improving performance more in the non-consumers.

< *Psychopharmacology (Berl)* 2005 Jun;179(4):813-25. >