

## Health food supplement may curb addiction of pathological gamblers

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University of Minnesota researchers have discovered that a common amino acid, available as a health food supplement, may help curb pathological gamblers' addiction.

In a recent eight-week trial, 27 people were given increasing doses of the amino acid, N-acetyl cysteine, which has an impact on the chemical glutamate – often associated with reward in the brain. At the end of the trial, 60 percent of the participants reported fewer urges to gamble. The research will be published in the Sept.15, 2007 issue of *Biological Psychiatry*.

"It looks very promising," said Jon Grant, J.D., M.D., a University of Minnesota associate professor of psychiatry and principal investigator of the study. "We were able to reduce people's urges to gamble."

Those who responded well in the first round of the study were asked to continue to participate in a double-blind study – a testing method where neither the researcher nor subjects know who is in the control group until the study is finished.

Of the 16 who responded to the amino acid the first time around, 13 agreed to continue in the double-blind study (three didn't want to risk quitting the drug) for an additional six weeks. About 83 percent who received the supplement, continued to report fewer urges to gamble. Nearly 72 percent of those who took the placebo went back to gambling.



Similar studies using N-acetyl cysteine have shown its ability to curb drug addictions in animals, and a current University of Minnesota study conducted by Grant is investigating whether the drug could help methamphetamine users quit.

"This research could be encouraging for a lot of addictions," Grant said.

This pilot study is the first to examine the efficacy of a glutamatemodulating agent in the treatment of pathological gamblers, making the findings fairly significant, Grant said.

Because subjects knew they were taking a supplement during the first phase of the study and since there was a relatively small number of subjects in the double-blind portion, a larger study is warranted to confirm the validity of these findings. University of Minnesota researchers are currently seeking a federal grant to fund it.

Source: University of Minnesota

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