

# Impulsive behavior in males increases after periods of heavy drinking

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Alcohol is known to cause an increase in impulsive behavior in individuals, which can not only be dangerous for themselves, but for others as well. A new study on adolescent males indicate that risky behavior may actually increases over time after periods of heavy drinking.

The period known as adolescence is a significant time of change for the individual experiencing it. Some of the most important changes occur within the prefrontal cortex of the brain, where decision making, understanding and behavioral control reside. But, adolescence is also a time when many individuals begin to drink, which can have serious effects on brain development.

New research investigating impulsive behavior in male adolescents has indicated that there is a significant trend regarding the amount of [alcohol](#) an individual ingests, and changes in levels of impulsive behavior that follow.

The results will be published in the February 2011 issue of *Alcoholism: Clinical & Experimental Research* and are currently available at Early View.

Helene R. White, a professor of sociology at the Center of Alcohol Studies at Rutgers University – The State University of New Jersey located in Piscataway and the first author of the study, said that the study attempted to fill a gap in current knowledge regarding whether human

adolescents who drink heavily show an increase in impulsive behavior.

"Heavy alcohol use in adolescence may lead to alterations in brain structure and function that reduce behavioral (impulse) control, which could, in turn, promote further heavy drinking," said White. "We chose boys because they tend to drink heavier than girls during adolescence, and adolescent boys generally exhibit less impulse control than adolescent girls."

The study involved annually following more than 500 first grade boys from the City of Pittsburgh public schools until age 20, with another follow up four to five years later. The researchers used questionnaires and interviews to obtain data regarding the subject's drinking and impulsive behavior, so they could determine if there was a correlation between the two.

These results showed that for adolescent boys exhibiting moderate levels of impulsive behavior, as opposed to those in the low or high groups, there was a significant increase in [impulsive behavior](#) when they engaged in heavy drinking the previous year.

"These studies highlight the importance of prevention," says Andrew Littlefield, a doctoral candidate in clinical psychology at the University of Missouri who has published papers comparing changes in impulsivity to alterations in drinking behavior during young adulthood. "Decreasing heavy drinking during adolescence may decrease impulsivity by preventing damage to crucial brain areas. Findings also suggested that [adolescents](#) who stopped heavy drinking later "rebounded" to lower levels of impulsivity. Therefore, decreasing drinking during adolescence could result in improved self-control at later ages."

However, these results are only the first step in research regarding impulsivity and heavy drinking, and according to

White, far more research is needed before any definitive conclusions are drawn.

Provided by Alcoholism: Clinical & Experimental Research

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