

## Developing Brains: Alcohol Worse than Marijuana

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(PhysOrg.com) -- It appears that when it comes to teen brain development, parents should be more worried about alcohol abuse than marijuana abuse. Two recent studies have been published showing that alcohol -- a legal substance (though not legal for teens in the U.S.) -- is considered more dangerous than marijuana, which is illegal in many countries.

One study has been published in the U.S., in the journal Clinical EEG and neuroscience: official journal of the EEG and Clinical Neuroscience Society (ENCS), and shows that <u>alcohol</u> has a stronger effect on <u>teen brain development</u> than <u>marijuana</u>. The other is a study published in the Lancet, offering the results of substance classification by a number of U.K. professionals, purporting that alcohol is more dangerous than



marijuana to individuals and to society.

The U.S. study was undertaken by Squeglia, Jacobus and Tapert in a San Diego State University/University of California San Diego joint doctoral program. The study looks at teen <u>brain development</u> for its uniqueness, as well as for the effects that substance abuse has on the brain during this time. Because alcohol and marijuana are commonly used by high school students, it is little surprise that the study is interested in the brain abnormalities stemming from abuse of these substances.

When the brain abnormalities were measured -- seen in terms of brain functioning and structure, cognitive tasks and quality of white matter -- it appeared as though alcohol had a great effect than marijuana. Heavy drinking was defined 20 drinks per month, and the abnormalities were detectable. In heavy marijuana users, abnormalities existed, but not to the same degree as those seen in alcohol abusers.

Findings from the U.S. study, showing that alcohol use in teens causes more irregular brain function than marijuana, would seem to square with efforts in the U.K. to encourage new drug classification. In the Lancet, David Nutt at Bristol University, along with his colleagues, asked psychologists and scientifically or medically trained police to rank different substances according to how harmful they are. The study purports that experts rank alcohol (and tobacco) as more harmful than marijuana. In a list of 20 substances, alcohol came in at number five, tobacco came in at number nine, and marijuana/cannabis came in at number eleven.

These studies are likely to add fuel to movements in both the U.S. and the U.K. to re-classify marijuana. Supporters of fewer restrictions on marijuana will undoubtedly point to scientific studies that show we already legalize less dangerous substances.



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