**Alcohol and Pot Damage Young Brains' Decision-Making Center**

Maureen Salamon, MyHealthNewsDaily Contributor   |   October 20, 2010 03:53pm ET

Teens who are heavy users of alcohol or marijuana end up with more than a high: The chemicals damage the area of their brains that controls judgment, decision-making and social skills, a new study shows.

The research, led by Robert J. Thoma of the University of New Mexico School of Medicine, produced results in line with studies over the last decade that linked [adolescent binge drinking](http://www.livescience.com/health/rural-teens-drinking-101001.html) and marijuana use to brain impairment.

The new study links heavy drinking to damage in the brain's frontal lobe during a crucial period of development. The researchers said the findings show how alcohol disrupts processes that sharpen attention and planning skills.

**The teenage brain, on drugs**

The researchers found that as drinking intensity increased, teenagers demonstrated a significantly decreased ability to pay attention and respond appropriately to stimuli in their environment.

The researchers also found, as other studies have, a strong link between [marijuana use and memory problems](http://www.livescience.com/health/090203-marijuana-brain.html).

Thoma, a clinical neuropsychologist and associate professor of psychiatry, writes that prevention and treatment of teenagers' substance abuse are important because some neural (brain) development takes place during late adolescence (teen years).

**What about occasional use?**

Future research should focus on the effects of [light or moderate alcohol consumption](http://www.livescience.com/34976-two-alcoholic-drinks-may-topple-seniors.html) by adolescents, which has not yet been studied, said David J. Hanson, professor emeritus of sociology at the State University of New York at Potsdam.

Thoma said he and his team plan to continue their research to determine if alcohol-induced brain damage is dose-dependent, and whether intervention should be recommended for modest alcohol use.

<http://www.livescience.com/35078-alcohol-marijuana-use-damages-teen-brains-101020.html>

# Questions

1. What did the study find regarding substance abuse?

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1. What part of the brain does alcohol and drug use affect?

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1. List all of the specific issues that researchers found in teens who abuse substances:

For example, it disrupts processes that sharpen attention and planning skills.

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1. What is meant by occasional use of alcohol and drugs?

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1. What are the findings on occasional use of alcohol and drugs?

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