

Neuropsychopharmacology press release



Embargoed until:

**05 July 2006 00:00 US Eastern time | 05:00 London time | 13:00
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05 July 2006 (AOP)

This press release contains the following item(s):

▶ [Vulnerability to hard drugs](#)

[top](#) ↗

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top ▲

Vulnerability to hard drugs



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The theory that experimentation with cannabis is harmless and won't lead to further drug use is challenged in an online publication in *Neuropsychopharmacology* this week.

Marijuana, often called a 'gateway' drug is the most frequently used illegal drug by teens worldwide and previous research has shown that the adolescent brain is particularly sensitive to drug exposure. Gateway drugs is a term suggesting that addiction to one drug could make a person vulnerable to abuse and addiction of harder drugs.

The most common argument against the gateway drug theory is that adolescents move on to harder drugs because of peer and/or emotional pressures. Yasmin Hurd and colleagues demonstrate in animal models that cannabis does, in fact, affect future sensitivity to heroin. Studying neurobiological events after cannabis exposure, they found marijuana affects the human brain's natural chemicals called endogenous opioids, which are known to play a role in heightening positive emotions, and creating a sense of reward. This is the same system that is stimulated by hard drugs.

The team's results dispel the common belief that drug experimentation does not affect the brain. They show that the brain may 'remember' previous usage and make users vulnerable to harder drugs later in life.

This study may have an impact on governmental regulations calling for the legalization of marijuana. And, any potential increase in the number of addicted people could impact healthcare, rehabilitation costs and crime rates.

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