



IMMATURE BRAIN MAY PLACE TEENAGERS AT ELEVATED RISK TO EFFECTS OF DRUG USE

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Immature Brain May Place Teenagers at Elevated Risk to Effects of Drug Use, Argues Noted Substance Abuse Researcher A. Thomas McLellan, Ph.D. of the Treatment Research Institute in Philadelphia

Message Coincides with Launch of Nationwide "Partnering with Families" Campaign by the Partnership for a Drug Free America

February 22, 2005, Philadelphia, Pa.

In a message directed to parents and other "influencers" of American youth, A. Thomas McLellan, Ph.D. today warned that teenagers may be more susceptible to drug abuse than adults and their drug usage may place them at greater risks than previously thought.

"Science increasingly suggests that brain development is ongoing during adolescence and into the early twenties, and that drug experimentation during this time is more risky to the still-developing brain than previously believed," McLellan said. "Very worrisome is the possibility that drug use during these neurologically formative years may inhibit the critical processes that nurture brain development to its conclusion."

McLellan's appeal, echoed by adolescent substance abuse researcher Ken Winters, Ph.D., arises from advanced brain imaging research conducted by Jay Giedd and colleagues from the National Institute on Mental Health. That research presents strong evidence that the brain is still developing during adolescence, a process that completes around age 24 and not at puberty. Whereas brain segments controlling sensory and physical development mature first, the last of the development occurs in the brain regions controlling judgment.

Other research, much of it from animal experiments, suggests teenagers' sensitivity to intoxication is different from adults, possibly contributing to binge drinking and an increased risk for alcohol dependence, Winters said. "Drinking may also produce cognitive disruptions in adolescence – to memory for example – and the extent to which restoration or recovery occurs in adulthood is not known," he emphasized.

McLellan and Winters are researchers from the Philadelphia-based Treatment Research Institute, a non profit research and development organization that studies ways to improve treatment and prevention of substance abuse. McLellan is co-founder and Executive Director of the group.

The pair presented the findings at a press conference sponsored by the Partnership for a Drug Free America. The event launched a nationwide "Partnering with Families" campaign to engage parents in the critical role they play in preventing drug use by their kids.

"From human and animal data we already knew about the deleterious effects of drugs on the brain, including the adolescent brain," Winters said. "Now we are learning these impacts may be hitting on a brain structure not-yet fully formed. The implications for parents are enormous."

The [Treatment Research Institute](#) is a not-for-profit research organization dedicated to reducing the devastating impact of substance abuse on individuals, families and communities through the real world application and dissemination of evidence-based practices. Based in Philadelphia, the organization was founded in 1991 with a grant from The Pew Charitable Trusts.

A. Thomas McLellan, Ph.D., TRI co-founder and its Executive Director, is an expert on substance abuse treatment. Ken C. Winters, Ph.D. is an expert on adolescent substance abuse. The findings on adolescent brain development were compiled by Dr. Winters as part of his continuing work to improve treatment approaches for substance abusing teenagers.

For more information on the work of TRI or adolescent brain development, contact Bonnie Catone, TRI Director of Communications at 518-753-0151 or at BCatone@tresearch.org

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