

Brain abnormalities pre-date pot smoking in heavy users

The Conversation: December 21, 2011

This article explains the relationship between early cannabis use and pre-existing brain abnormalities that may "represent markers of vulnerability" to cannabis use. In the study, children were given MRIs at age twelve and at age sixteen were assessed for cannabis use. The findings, recently published in *Biological Psychiatry*, showed that abnormalities in the orbitofrontal cortex (ORC), an area of the brain that "underlies inhibitory and decision-making processes, influences the risk for early cannabis use" by age 16. However, it is "unlikely that OFC volume reductions exclusively lead to cannabis use." It is important also to make "greater investment in prevention programs that target childhood risk factors, such as social disadvantage, family breakdown and early school failure, which contribute to the development of harmful substance use during adolescence."