## **Ehe New York Eimes** A Risky Habit We Shouldn't Encourage

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Converging evidence suggests cannabis is addictive for many and harmful to adolescents and to those at risk for mental illness.

About <u>9 percent</u> of people who use cannabis become addicted. The younger one starts, the greater the risk of addiction. Cannabis includes withdrawal craving, trouble sleeping, poor appetite, anxiety, malaise, tension and depressed mood that impairs daily functioning and predicts relapse to cannabis use. The cannabis withdrawal syndrome has been compared to that of nicotine, which is of undoubted clinical significance. Nicotine is verv addictive. Compared with nicotine, marijuana is probably less addictive, but more harmful to brain function, particularly young brains - and recent data indicate that marijuana use may increase the addictiveness of nicotine.

Regular cannabis use <u>has been</u> <u>associated</u> with an 8- to 10-point drop in I.Q. over the course of 20 years, a change that would bring one from the 50th percentile to just over the 30th. Again, those who started regular use in adolescence experienced greater I.Q. decline than those who started as adults. Marijuana worsens cognitive performance, particularly in the domains of verbal learning, verbal working memory and attention

accuracy. Some deficits appear to lasting. Attention accuracy be deficits associated with cannabis do not improve with use abstinence. These results suggest hippocampal, subcortical and prefrontal cortex abnormalities, some of which may be lasting. Brain white matter connectivity is adversely affected to a greater extent in those who begin regular cannabis use in early adolescence. Animal studies also show neuroplastic changes in areas of the brain associated with addiction, like the nucleus accumbens.

Cannabis use increases the risk for schizophrenia in people who have underlying genetic risk, and early age at first use is associated with earlier age at onset of psychosis. Two common gene variants have been identified that, combined with cannabis use, increase the risk for psychosis. A minority of those who cannabis use develop psychosis, but we are currently unable to predict who is at risk. So increasing use, which legalization is bound to do, will increase the numbers of those at risk who are exposed and harmed.

Cannabis is potentially addictive and harmful to the brain, especially in adolescents. As a

## society, we are going in the wrong direction on marijuana.

The public must be educated that is both cannabis potentially addictive and harmful to the brain, with a greater effect on the most vulnerable among us, kids. Where it has been legalized, its use has particularly increased, among young people who are at greatest risk from exposure. This trend of legalization will be difficult to reverse, even as we learn more about the harmful effects of regular cannabis use at early ages. Another factor to consider is that the marijuana available today is more potent than ever. THC levels have been rising while cannabidiol levels, protective for anxiety and psychosis, have been decreasing. Recent increases in hospital admissions for cannabis dependence treatment correlate with potency with and legalization.

Thus legalization increases availability, increases use, increases dependence and increases harm, particularly to vulnerable groups like adolescents and those already at risk for mental illness. As a society, we are going in the wrong direction on marijuana.