

# Confronting the Myths about Marijuana

As efforts to legalize marijuana continue, there is an increasing perception that it does not pose risks to its users. The reality is that marijuana can cause major health, safety, social, and learning problems, especially in adolescents.



Confronting misinformation related to marijuana is essential to provide your child with an accurate view of the harm related to its use. Here are a few important facts you can use to engage in a meaningful discussion about marijuana with your child.

## Marijuana Affects Your Health



The growing belief is that marijuana is harmless, but the truth is that marijuana use has adverse effects on the body and can increase heart rate and can affect blood pressure, causing additional risk for those with cardiovascular disease.<sup>1</sup> The short-term effects of marijuana use include anxiety, memory loss, trouble concentrating, and sleep disruptions.<sup>2</sup> At high doses, marijuana can even cause psychosis (the loss of contact with reality), which can include delusions (false beliefs about what is taking place or who you are) and hallucinations (seeing or hearing things that aren't really there).<sup>3</sup> Those who start using marijuana at a young age are more likely to experience schizophrenia and other mental illnesses later in life.<sup>4</sup>

Many people also believe that marijuana is not addictive but recent research shows marijuana has addictive properties and that use can lead to physical dependence.<sup>5</sup> Studies show that heavy users of marijuana may develop withdrawal symptoms such as irritability, anxiety, restlessness, nausea, and insomnia when the drug is not used for a period.<sup>6</sup> Many people may also develop a social dependence on marijuana and continue to use it regardless of how it interferes with activities, responsibilities, and relationships.



## Specifically, Marijuana Affects Brain Health

Marijuana use can lower a person's IQ score up to eight points, on average.<sup>7</sup>

This is especially true for those who begin using marijuana in their teens. The brain isn't fully developed until the mid to late twenties, so, like underage drinking, marijuana use can impact the short- and long-term growth processes in the parts of the brain that impact learning, and memory, decision-making, potentially leading to poor academic performance. Many users report difficulty remembering or recalling information, increased memory loss, missing days of work or class, difficulty sleeping, procrastination, and lower productivity.<sup>8</sup>



## Marijuana Affects Your Ability To Drive

Driving under the influence of marijuana is not safer than driving under the influence of any other intoxicating substance.

The chance of a car crash doubles while driving under the influence of marijuana. This is because marijuana affects concentration, perception, coordination, reaction time, and alertness—all of which are essential skills for safe driving.<sup>9</sup> While marijuana affects a different driving skill set than alcohol, even moderate doses of marijuana have been shown to reduce reaction time.



## Marijuana Affects Respiratory Health

Marijuana is linked with respiratory problems and research suggests that marijuana smoke contains three to five times the amount of the toxic chemicals hydrogen cyanide and nitric oxide; and twenty times the amount of ammonia levels.<sup>10</sup>



## Marijuana Is Still Illegal

Many people believe that because of recent law changes in the state of North Dakota, that marijuana is fully decriminalized. Those law changes state that for people over the age of 21 who possess less than half an ounce of marijuana the penalty is a non-criminal infraction with a fee. For persons under the age of 21, possessing the same amount of marijuana is still a Class B Misdemeanor and punishable by up to 30 days in jail and a \$1,500 fine. (19 N.D.C.C. § 24.1) Possession of marijuana concentrates of any variety for any age group is still a Class A Misdemeanor, with a second offense being a felony. (19 N.D.C.C. § 03.1-22.3) These concentrates include waxes, resins, oils, tinctures, and edibles, among various other forms.

<sup>7</sup>Sidney, S. (2002) Cardiovascular consequences of marijuana use. *J Clin Pharmacol*. 42(11 Suppl): p. 64S-70S

<sup>8</sup>Patton GC, Coffey C, Carlin JB, Degenhardt L, Lindskey M, Hall W. Cannabis Use and mental health in young people: cohort study. *BMJ*. 2002; 325:1195-8 [PMC free article] [PubMed] [Google Scholar]

<sup>9</sup>Di Forti M, Sallis H, Allegrri G, et al. Daily use, especially of high-potency cannabis, drives the earlier onset of psychosis in cannabis users. *Schizophr Bull*. 2014 Mar 19; (Epub ahead of print) [PMC free article] [PubMed] [Google Scholar]

<sup>10</sup>Caspi A, Moffitt TE, Cannon M, et al. Moderation of the effect of adolescent-onset cannabis use on adult psychosis by a functional polymorphism in the catechol-O-methyltransferase gene: longitudinal evidence of a gene X environment interaction. *Biol Psychiatry*. 2005; 57:117-27. [PubMed] [Google Scholar]

<sup>11</sup>Lopez-Quintero C, Perez de los Cabos J, Hasin DS, et al. Probability and predictors of transition from first use to dependence on nicotine, alcohol, cannabis, and cocaine: results of the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) *Drug Alcohol Depend*. 2011;115-120:120-30. [PMC free article] [PubMed] [Google Scholar]

<sup>12</sup>Gorelick DA, Levin KH, Copersino ML, et al. Diagnostic criteria for cannabis withdrawal syndrome. *Drug Alcohol Depend*. 2012;123-141:7. [PMC free article] [PubMed] [Google Scholar]

<sup>13</sup>Meier MH, Caspi A, Ambler A, et al. Persistent cannabis users show neuropsychological decline from childhood to midlife. *Proc Natl Acad Sci U S A*. 2012;109(40):E2657-E2664. [PMC free article] [PubMed] [Google Scholar]

<sup>14</sup>Lynskey M, Hall W. The effects of adolescent cannabis use on educational attainment: a review. *Addiction*. 2000; 95:1621-30. [PubMed] [Google Scholar]

<sup>15</sup>Lenne MG, Dietze PM, Triggs TJ, Walmsley S, Murphy B, Redman JR. The effects of cannabis and alcohol on simulated arterial driver: influences of driving experience and task demand. *Accid Anal Prev*. 2010; 42:859-66. [PubMed] [Google Scholar]

<sup>16</sup>American Chemical Society. (2007, December 18). Marijuana Smoke Contains Higher Levels of Certain Toxins Than Tobacco Smoke.