



## OCTOBER 2015 NEWSLETTER

### Mixing Alcohol and Marijuana By Pamela Erickson and Lise Gervais

As marijuana becomes legal for recreational use in more states, it is likely more people will use it with alcohol. What do we know about combining these substances? What are the physiological effects and is there a safe level of use for both products used simultaneously? Will combining substances increase social harm? There has been little thought or public discussion about this issue. Moreover, little research exists that could form the basis for public education and policies designed to prevent harms.

What research there is suggests that using alcohol and marijuana together can intensify the effects of both. Alcohol has been shown to increase the level of marijuana's main psychoactive ingredient, THC, in the blood stream.<sup>(1)</sup> With increased heart rate and lowered judgment, driving and other activities can be very dangerous. As a person consumes more of either pot or alcohol, they are less likely to think rationally about how much or what they are consuming.

Marijuana has been used by chemotherapy patients dealing with nausea because it is an "anti-emetic"-- meaning patients are less likely to vomit.<sup>(2)</sup> But this quality can be a drawback for someone who has consumed too much alcohol, when the body's natural response is to purge it by vomiting. Without the purging, a person is more susceptible to alcohol poisoning.<sup>(3)</sup>

What about the impact on the adolescent brain? We know that regular alcohol use can damage the developing adolescent brain. Recently, we have learned that a similar problem occurs with marijuana use. Because of technological advances in brain imaging, we now know that even casual use of marijuana can change the chemistry and functioning of developing brains.<sup>(4)</sup>

In a study lead by Northwestern University, the more joints a person smoked per week, the more abnormalities existed. "Some of these people only

"...mixing marijuana with alcohol will produce much more impairment than either drug used alone."

R. Andrew Sewell, et al, "*The effect of Cannabis compared with Alcohol on Driving.*"

used marijuana to get high once or twice a week," said study author Hans Breiter, MD, "People think a little recreational use shouldn't cause a problem, if someone is doing OK with work or school. Our data directly says this is not the case."

Another issue is the development of products such as edibles. Levy Thamba, a Wyoming college student visiting Denver, ate 6 times the recommended amount of a marijuana-laced chocolate bar, became incoherent and threw himself over a 4th floor railing to his death.<sup>(5)</sup> And then there's the experience of New York Times writer Maureen Dowd who was in Colorado to report on the phenomenon of legalization. She ate a marijuana candy bar in her hotel room which resulting in her laying "curled up in a hallucinatory state for the next eight hours."<sup>(6)</sup>

Over the centuries alcohol was developed in a variety of concentrations...from weak alcohol products with 3-4% alcohol to very potent beverages that are about 90% alcohol. Generally, we regulate very potent products more tightly. Marijuana is going through a similar progression. The University of Mississippi has been monitoring the potency of marijuana seized in all 50 states and has seen a trend towards much greater potency in the 45,000 plus samples they've analyzed since 1993. Efforts to increase the potency of THC have led some to develop extracts with dramatically high THC. Product development is proceeding very fast and regulation is in a "catch-up" mode.

For more information, see [www.healthyalcoholmarket.com](http://www.healthyalcoholmarket.com)  
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The potential for harm of mixing high potency alcohol and marijuana products is truly frightening!

If both products become legal, how should public officials educate citizens? Should people be advised not to mix substances? What should parents say to their children about the dangers of mixing substances? We don't really know enough to adequately perform the function of public education.

States seem to be in a rush to legalize—sometimes for the sake of tax revenue. But since we don't really understand all of the public safety consequences or costs of legalization, it may be wise to first wait and watch what happens in other states.

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<http://www.ncbi.nlm.nih.gov/pubmed/11543984>

(2)

<http://www.alphagalileo.org/ViewItem.aspx?ItemId=96518&CultureCode=en>

(3)

<http://www.medicaldaily.com/drunk-and-high-science-explains-some-side-effects-come-mixing-alcohol-and-marijuana-278486>

(4)

<http://www.northwestern.edu/newscenter/stories/2014/04/casual-marijuana-use-linked-to-brain-abnormalities-in-students.html>

<http://www.npr.org/sections/health-shots/2014/02/25/282631913/marijuana-may-hurt-the-developing-teen-brain>

(5)

[http://www.denverpost.com/news/ci\\_25585976/man-who-plunged-from-denver-balcony-ate-6](http://www.denverpost.com/news/ci_25585976/man-who-plunged-from-denver-balcony-ate-6)

(6)

<http://www.nytimes.com/2014/06/04/opinion/dowd-dont-harsh-our-mellow-dude.html>

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