What's the 411 on Four Loko? [1]

Obviously drinks like Four Loko and Joose are dangerous for many reasons. Can you please explicate the science beyond my general understanding that "alcohol is a depressant and caffeine is a stimulant and thus, Four Loko is dangerous?? Exactly why on a chemical level is it a dangerous drink? Does it kill brain cells more consistently than traditional alcohol? Will it weaken my short term memory? Once I understand in greater detail, I'll probably be able to make the conscious decision to stop drinking "alcopop." Thank you very much.

Answer

Dear Reader,

Nicknamed Black?Out?In?a?Can (and sometimes referred to as "alcopop"), Four Loko and similar products are already off most store shelves. There are a number of reasons why Four Loko, Joose, and a few others are particularly dangerous ? even more dangerous than the often compared Red Bull and vodka. The part of your question that deals with the negative effects these drinks can have on the brain is actually not fully understood. This is because these drinks are so potentially dangerous that researchers cannot ethically test their effects in a controlled environment. So, whether it obliterates brain cells and memory worse than regular heavy drinking is uncertain, but here's what is known about these drinks.

First, they have more caffeine than a can of Red Bull or a typical cup of coffee. Red Bull contains 80 milligrams of caffeine per 8 oz can while Four Loko packs approximately 260 milligrams. Four Loko also contains a ton (that's the scientific term for 60 grams) of sugar, which masks the bitterness of the alcohol. Lastly, it contains 12% alcohol, about the same as wine and twice as much as beer. Although both beer and Four Loko are malt beverages, adding sugar to the grain fermentation process boosts the alcohol content, which is why these beverages have significantly higher alcohol content than beer. Of course, they don't come in an 8 oz can like some energy drinks ? they come in a 23 oz can. This means that one can of Four Loko contains the alcohol equivalent of 5 drinks by volume.

So what does all this mean for your body? Well, one of your body's defense mechanisms against alcohol poisoning is good, ol'?fashioned falling asleep. Getting tired has probably saved the lives and livers of many, many college students. In extreme cases when a person refuses to go to sleep, the body may cut him or her off by passing out (a self-defense form of sleep). But caffeine, because it is a stimulant, short?circuits this mechanism. The result is that a person remains awake and alert and able to take inebriation to new heights.

But that's not all. The speed at which a person consumes alcohol also affects his or her drunkenness. Because the drink tastes like candy, it is easier to chug than, say, 23 oz of wine.
This contributes to many of the reported emergency room visits from drinkers of products like Four Loko.

One final concern with the intense caffeine and alcohol pairing is more severely impaired judgment. Perhaps you have seen that 1950’s style “ad” for coffee that reads: “Drink Coffee: Do Stupid Things Faster and With More Energy.” Well, this saying applies in the case of the energy drink and alcohol combo. Numerous studies have found that people either buzzed or drunk on energy drinks and alcohol are more likely to take risks than people drunk on alcohol alone. They are also more likely to drive drunk despite the fact that motor coordination is no less impaired during a caffeinated drunkeness. Other studies cite increased levels of aggression and decreased ability to judge exactly how hammered one is. Thus, the illusion of relative sobriety gets people into trouble.

So, the risks lie both in the physical effects themselves and also in the behavioral ones. Of course, the caffeine and alcohol combo (e.g. rum and cokes, Irish coffee) existed before and will outlast the pre-packaged alcoholic energy drink fad. In moderation, this combo doesn't necessarily carry the same risks as these manufactured drinks, though much of this depends on the metabolism of the individual. For more information, check out the Related Q&As below.

Here's to partying that's as safe and healthy as possible,

Alice!

Category: Alcohol [2]

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