Alcohol on the brain [1]

Dear Alice,

I was wondering the rate at which alcohol induces brain damage; I know that over a course of years damage occurs, but does anything happen after about a month of drinking on weekends?

Answer

Dear Reader,

You pose a question that gets right to the heart of what is known and what isn?t known about the effects of alcohol on the brain. What is known is that chronic alcohol exposure is shown to contribute to brain damage in humans, and even moderate? or lower risk [2] alcohol exposure has been shown to contribute to some brain shrinkage. However, low-risk doesn't mean no risk. Though abiding by the low-risk alcohol consumption limits helps to reduce the risk of negative health consequences, it's noted that some people may still be at risk even when consuming alcohol within the recommendations (due to a variety of factors that can include age, biological sex, how quickly alcohol is consumed, and other health issues). Each individual differs in her/his alcohol tolerance and the ways her/his brain and body will react to varying amounts of alcohol (check out How much alcohol a day [3] for more information).

There is some research that implies that low to moderate levels of alcohol may be involved in neurogenesis, (the constant, low-level development of new brain cells) but other studies point out that it?s not clear whether drinking low levels (say, one drink per day, a couple times per week) actually contributes to the development of new brain cells or if lower levels of drinking just impair the normal process of brain development less. Drinking only on the weekends for one month may not lead to permanent damage to your grey and white matter, but this would somewhat depend on how much drinking you?re talking about: a glass of wine with dinner and a cocktail at brunch is different than an entire six-pack of beer while watching a three-hour sporting event. The latter could potentially have a longer (and negative) impact on your brain. But one or two drinks on the weekend over the course of a month may actually have a neutral or even slightly positive effect on your brain. For example, alcohol consumed at lower levels is suggested to have a protective effect, perhaps even guarding against dementia or Alzheimer?s disease.

If you?re concerned about what alcohol may be doing to your noggin, you might consider simply cutting down on the amount you consume. Regular drinking in most individuals can lead to increased alcohol tolerance [4]. However, it?s been suggested that once you return to a
new baseline? that is, once your body becomes adjusted to a new lower amount of drinking, your brain may return to its normal rate of brain development if it was previously hampered.

The bottom line is that there are many unknowns in this arena. Research can't tell you what your unique response to alcohol may be in the immediate or distant future. Research hasn't yet identified all the mechanisms of neurogenesis or brain development. Research also doesn't always know all the factors that can go into brain degeneration. For some additional information on drinking in a safer and smarter way, check out Hangover helper and tips for healthy drinking [5]. You can also check out the Rethinking Drinking website from the National Institutes of Health [6].

L'chaim!

Alice!

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Published date:
Jan 11, 2008
Last reviewed on:
Jan 09, 2015