Dear Alice,

Is it harmful, under any circumstances, to eat marijuana instead of smoking it?

Answer

Dear Reader,

For those who may not like smoke getting in their eyes, inhaling smoke into their lungs, or swapping a pot-filled joint or bong, eating products infused with marijuana (edibles?) may sound like a more desirable option. Edibles are any foods, or even drinks, that are infused with cannabis oils that contain tetrahydrocannabinol (THC) - a psychoactive chemical compound which, when ingested, interacts with the brain, and is responsible for the high associated with marijuana. While it's difficult to say which is less harmful, research does suggest that the way in which marijuana enters the body (via smoking, eating, etc.) can result in key differences in how quickly it takes effect, how long the effects are felt, and the risk of unpleasant side effects.

So what kind of experiences might a marijuana user have if they choose to edibles versus smoking? Short answer: there isn't a straight-forward one! Why? For that, a longer answer is necessary. Some key differences and factors include:

- **How THC is metabolized**: The THC found in marijuana is scientifically known as delta-9-THC and is small enough to travel directly through the bloodstream to the brain. So, when an individual smokes marijuana, the delta-9-THC travels directly across the blood-brain barrier (BBB) to quickly create a high. On the other hand, with edibles, the delta-9-THC is metabolized to 11-hydroxy-THC. When compared to delta-9-THC, 11-hydroxy-THC is better able to cross the BBB, resulting in a more potent high. In other words: due to additional metabolic processes involved, consuming edibles results in a potentially stronger high as compared to what is experienced when smoking (depends on the amount of THC ingested).

- **Onset of effects or the marijuana high**: There are differences in the time it takes for the marijuana to take effect, as well as the duration of those effects, depending on the method of use. When smoking marijuana, individuals typically experience effects within ten minutes and the effects may last up to 60 minutes. On the other hand, with edibles, the effects will start within about 30 to 90 minutes and will usually peak around two to four hours after they've been consumed. However, there's more to it than just time;
other individual factors can impact the high, including weight, biological sex, metabolism, eating habits, and amount of THC ingested. These can affect how quickly someone experience effects and the duration of those effects.

- **Difficulty gauging the amount of active ingredient:** There’s a lack of standardization of edibles, particularly with estimating how much THC they actually contain. This, in turn, can result in individuals accidentally consuming far more THC than desired. Due to the delay in the onset of effects, some folks will mistakenly believe they haven’t eaten enough of the edibles to experience their desired high. Because of this, they’re likely to continue munching more edibles. In these situations, users may become progressively high, and experience altered sense perception, slower reaction times, enhanced relaxation, and a reduction in muscle coordination. By the time they experience a stronger high, they can be exposed to too much THC at once. In turn, they may become undesirably high and experience greater unpleasant side effects of marijuana.

Now, you might be wondering, what might it feel like to consume too much marijuana? Experiences may include:

- Disorientation
- Feeling delirious or feverish
- Hangover or stupor
- Lethargy the following day
- Paranoia, acute psychosis, or panic attacks while high (which more common in new marijuana users and users with an existing psychiatric condition)

The good news is that, currently, there have been no reported deaths related to over-consumption of marijuana. The not-so-good news is that there’s no escaping the unpleasant side effects (which could also include dry mouth, blood-shot eyes, decreased short-term memory, and increased heart rate and blood pressure) until the body breaks down the THC.

With all this in mind, why might some people choose edibles? First, many users believe that eating or drinking marijuana allows them to bypass the risks of smoking—it has been found that marijuana smoke contains similar carcinogens as those found in cigarette smoke. Another reasons folks may choose edibles is that some users report preferring the longer lasting effects of eating edibles. In that vein, some medical marijuana users report that edibles allow for longer-lasting relief to chronic symptoms (e.g. pain), as compared to smoking marijuana. However, this long-lasting effect could also be detrimental, making activities that require concentration and coordination, such as schoolwork, driving, or operating heavy machinery, even more challenging or risky while under the influence.

Despite the reported popularity of edibles amongst some marijuana users, more research is necessary to better understand the impacts on health and further explore consumer perceptions. However, additional studies investigating these issues could be challenging; marijuana is a Schedule I drug and research associated with the substance is restricted in the United States. In general though, the greater the dosage of marijuana consumed (eaten or smoked), the greater the risk of side effects. Even after considering the differences between the two methods of marijuana use, there’s still no clear indication about which may be more or less harmful. Curious to learn more about marijuana and other substances? Take a look at some of the Q&As in the Go Ask Alice! Alcohol and Other Drug archives.

Hopefully, this whet your appetite for information on edible marijuana products!