Drink for drink, are you more intoxicated in the air than on the ground? [1]

Dear Alice,

My new job requires me to travel by airplane quite a bit. While flying, I sometimes have a cocktail or two, and most of the time, I am really loopy by the time we land. Some colleagues of mine have told me that one drink in the air is the equivalent of two drinks on the ground. How is this possible?

— Loopiness in the Sky

Answer

Dear Loopiness in the Sky,

You bring up some good questions about how being in a pressurized tube hurtling through the sky can affect mere mortals! The short answer is that yes, flying or being at high altitudes in general can affect the way your body feels. Alcohol may be a factor, but it's not the only one that contributes to this experience. Instead, it may be a combination of factors that leads to you feeling loopier in the sky than with two feet on the ground. Ready to learn more? Time to take flight!

During a flight, the barometric pressure of an airplane cabin is lower than most places on Earth, which means the air is less dense. The majority of commercial aircraft are designed to be pressurized to the equivalent of an elevation of 6,000 to 8,000 feet. That's higher than the elevation of Denver (the Mile High City at 5,280 feet). This decreased pressure environment diminishes the body's ability to absorb oxygen and can produce light-headedness or other altitude sickness symptoms in some people. While generally not an issue on planes, the lack of oxygen can result in a condition called hypoxia. Hypoxia is the technical term for a lack of oxygen to the organs in the body, including the brain.

One of the minor symptoms of hypoxia is mild intoxication, similar to what is experienced after consumption of alcohol. Additionally, physiological changes associated with fluctuations in barometric pressure and alcohol intoxication are complex. However, it's likely that the loopiness you've noticed could be the result of the cumulative effects of lower oxygen levels and
inebriation. Blood alcohol content (BAC) and the way the body processes alcohol under such environmental conditions probably stays the same as on land. Meaning, some people may seem more drunk in the air than on the ground after consuming the same amount of alcohol because of the lower oxygen levels in their blood.

Another thought to consider is that the air on planes is usually very dry (it helps preserve the interior of the plane). Add in the diuretic impact of alcohol and a person can become dehydrated faster than on the ground. Some health professionals and travel experts recommend avoiding alcohol before or during flying for these very reasons. Others will advocate for alternating at least eight ounces of water between alcoholic beverages (both on the ground and in the air).

While the impact of alcohol while flying can appear stronger, it’s not really double strength at altitude. Regardless, if you’re on the way to a meeting, it might be better to refrain. Or, if you’ve just closed the biggest deal of your career, then perhaps celebrations are in order!

Happy travels,

Alice!

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