Alcohol use and memory loss: blackouts? [1]

Dear Alice,

What exactly does “blacking out” from alcohol mean? Can people get so drunk that it is physiologically impossible for them to remember what happened the next day? Also, is it possible for someone to walk around, talk to people, etc., and then have no way of remembering those actions?

Answer

Dear Reader,

It’s time to clear the fog around the nature of blackouts. To answer your question, yes, it’s possible for people to get so drunk that it may be difficult or impossible for them to remember what happened the following day. Blackouts can occur when large amounts of alcohol are consumed quickly, creating a rapid rise in a person’s blood alcohol content (BAC). This affects the functioning of the hippocampus, a part of the brain that plays a significant role in the formation, storage, and understanding of memories. More specifically, alcohol can impede the ability for information to transfer from short-term memory to long-term storage, which results in the impairment of memory creation. But the effects aren’t exactly the same for all blackouts (more on this after the break). With all this said, there are several risks associated with blacking out, and frequent blacking out can indicate some degree of alcohol dependence and abuse. Eager to learn how to prevent blackouts and drink in a lower-risk manner while still having fun? Keep on reading!

It might be helpful to know that there are different types of blackouts and the exact ability to recall memories can vary depending on the type of blackout a person experiences. Blackouts come in two types: en bloc (total) or partial (fragmented). With a total blackout, a person experiences complete memory loss (amnesia) for events that occurred around the time they consumed alcohol. Alternately, with a partial blackout, they have memory lapses with some recollection. The higher a person’s BAC, the more likely they are to have a total blackout as opposed to a partial blackout.

The risk of blacking out due to alcohol use varies from person to person but can happen to anyone, whether they regularly misuse and abuse alcohol or are casual social drinkers. However, higher-risk drinking could increase the chances of a blackout happening. For example, there’s been an increase in the frequency of blacking out amongst teenagers and young adults who drink alcohol before a big event (pre-gaming). This often entails the playing
of drinking games, which requires repeated and rapid consumption of alcohol, further increasing intoxication levels. These types of behaviors can increase the chance of someone experiencing a blackout. Additionally, these types of situations can pose a greater risk for those who were assigned female at birth (women), who, due to physiological differences \[3\], are more vulnerable to blackouts than those assigned male at birth (men). Additionally, women don?t recover from memory impairments as quickly as men.

Contrary to popular belief, it's not always obvious when a person is very intoxicated, as people frequently experience cognitive and memory impairments before physical functioning is visibly affected. When people drink alcohol in a high risk manner and have dangerously high BAC levels, they could experience alcohol poisoning \[4\], passing out, or blacking out. Usually, it?s clear when people pass out as they?re no longer moving or talking. However, when people blackout, it can be harder to recognize as they often appear to be awake and functioning normally; they?re still able to use their working and short-term memory to carry on conversations and engage in complex behaviors. Yet, the information they gather while experiencing a blackout isn't stored in long-term memory and retrieval of memories can be limited or lost. Therefore, tomorrow, they may not remember what they said or did while blacked out. Sometimes this can lead to serious and typically unforgettable occurrences which are impossible to remember. This can be troubling or traumatic for the person experiencing it.

It?s no secret that judgment, decision-making, and interpretation of social signals are often impaired when using alcohol. This is the case even if an intoxicated person seems to be fully aware and competent, because, as previously mentioned, it can be difficult to distinguish who might be experiencing a blackout. Now, while you didn?t mention this in your question, it?s worth discussing here: The use of alcohol or drugs is often involved with the majority of reported acquaintance rapes among college students. Even more alarming is this: there?s evidence suggesting that perpetrators of rape will use alcohol purposefully as either a rationale for raping (saying things like ?I was drunk, I didn?t know what I was doing,?) or as a tool for incapacitating their victims (either on its own or in combination with other drugs \[5\]). All of this to say, it?s imperative to watch out for your friends \[6\], especially while drinking. If you see a friend, acquaintance, or even someone you don?t know who is getting drunk and it seems like someone is trying to become intimate with them, you can step up and intervene \[7\] in the situation as they?re likely unable to provide affirmative consent \[8\]. This could be as simple as asking the person if they?re okay or helping them find a safe way home, especially if they seem uncomfortable with the situation. You could even establish some form of a buddy-system with your friends, where you could occasionally check-in with each other during a night of drinking, and even make a pact to "leave no man behind" at a party. Also, if you?re ever in a situation where you?re with someone who?s been drinking, it?s best to wait until everyone is sober to ask for or give consent.

What can be done to prevent blackouts? To start, it's wise to limit daily alcohol consumption \[9\] and drink in moderation \[10\]. For low-risk drinking tips, check out Hangover helper and tips for healthy drinking \[11\] in the Go Ask Alice! Alcohol & Other Drugs \[12\] archives. If you?re concerned that blacking out has become a common occurrence for you, consider talking with a health care provider or health promotion professional who could help you determine steps for establishing a lower-risk relationship with alcohol. The National Institute on Alcohol Abuse and Alcoholism?s Rethinking Drinking \[13\] also offers information and resources to help people explore their drinking habits and ways to cut back or quit.
Remember, if someone decides to drink, drinking safely and responsibly can increase their chances of having a great night they're less likely forget!

Alice!
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Resources

Anonymous Alcohol Self-Assessment [22]
Columbia Health BASICS program (Morningside) [23]
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