

Visit 23 - Alcohol's Effects on the Brain

How Does Alcohol Affect My Brain?





Today's Video Session:

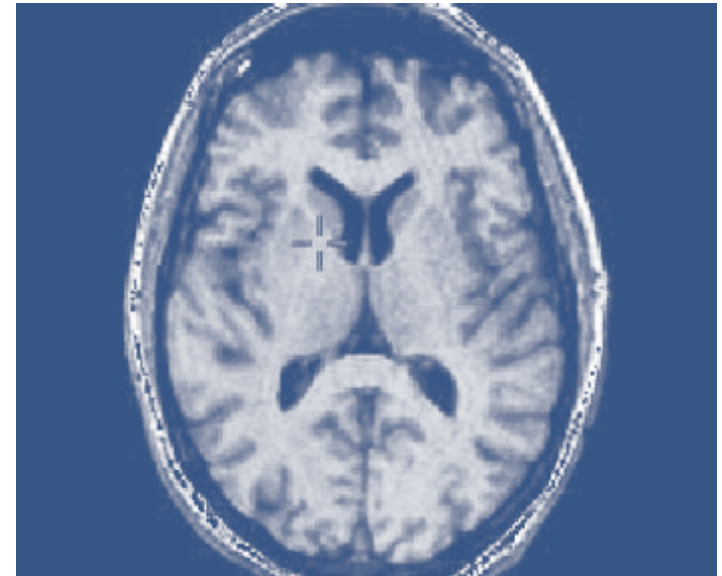
How Does
**Alcohol Affect the
Adolescent Brain?**

SHORT TAKES WITH
NIAAA

How Does Alcohol Affect My Brain?

Alcohol's Damaging Effects in the Brain

Difficulty walking, blurred vision, slurred speech, slowed reaction times, impaired memory: Clearly, alcohol affects the brain. Some of these impairments are detectable after only one or two drinks and quickly resolve when drinking stops. On the other hand, a person who drinks heavily over a long period of time may have brain deficits that persist well after he or she achieves sobriety.

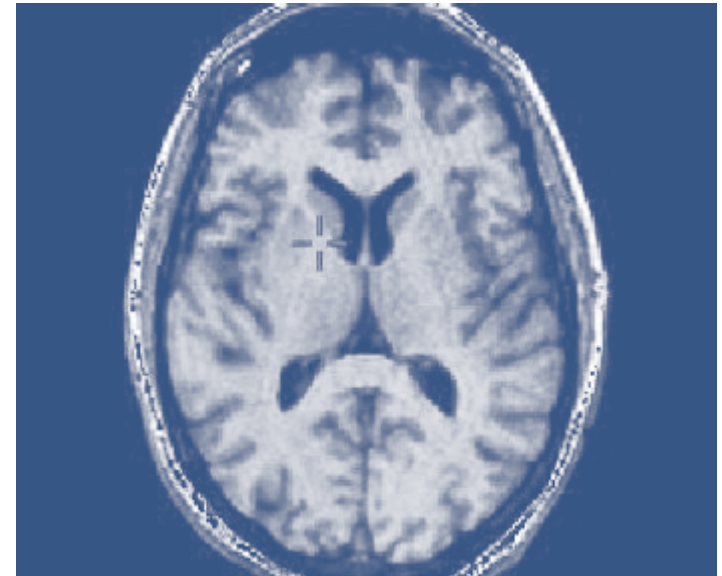


<https://www.niaaa.nih.gov/alcohols-effects-health/alcohol-topics/health-topics-alcohol-and-brain>

How Does Alcohol Affect My Brain?

Alcohol's Damaging Effects in the Brain

We do know that heavy drinking may have extensive and far-reaching effects on the brain, ranging from simple “slips” in memory to permanent and debilitating conditions that require lifetime custodial care. And even moderate drinking leads to short-term impairment, as shown by extensive research on the impact of drinking on driving.



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A number of factors influence how and to what extent alcohol affects the brain, including:

- How much and how often a person drinks
- The age at which he or she first began drinking, and how long he or she has been drinking
- The person's age, level of education, gender, genetic background, and family history of alcoholism
- Whether he or she is at risk as a result of prenatal alcohol exposure
- His or her general health status.

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Today's Video Session:

WHAT ARE
**ALCOHOL-INDUCED
BLACKOUTS?**

SHORT TAKES WITH
NIAAA

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Blackouts and Memory Losses

Alcohol can produce detectable impairments in memory after only a few drinks and, as the amount of alcohol increases, so does the degree of impairment. Large quantities of alcohol, especially when consumed quickly and on an empty stomach, can produce a blackout, or an interval of time for which the intoxicated person cannot recall key details of events, or even entire events.

Blackouts are much more common among social drinkers than previously assumed and should be viewed as a potential consequence of acute intoxication regardless of age or whether the drinker is clinically dependent on alcohol.

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Binge Drinking and Blackouts

Drinkers who experience blackouts typically drink too much and too quickly, which causes their blood alcohol levels to rise very rapidly. College students may be a particular risk for experiencing a blackout, as an alarming number of college students engage in binge drinking. Binge drinking, for a typical adult, is defined as consuming five or more drinks in about 2 hours for men, or four or more drinks for women.

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Binge Drinking and Blackouts Continued

Equal numbers of men and women report experiencing blackouts, despite the fact that men drink significantly more often and more heavily than women. This suggests that regardless of the amount of alcohol consumption, females—a group infrequently studied in the literature on blackouts—are at greater risk than males for experiencing blackouts.

A woman's tendency to black out more easily probably results from differences in how men and women metabolize alcohol. Females also may be more susceptible than males to milder forms of alcohol-induced memory impairments, even when men and women consume comparable amounts of alcohol.

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Brain Damage from Other Causes

People who have been drinking large amounts of alcohol for long periods of time run the risk of developing serious and persistent changes in the brain. Damage may be a result of the direct effects of alcohol on the brain or may result indirectly, from a poor general health status or from severe liver disease.

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Wernicke-Korsakoff Syndrome

Up to 80 percent of alcoholics, however, have a deficiency in thiamine, and some of these people will go on to develop serious brain disorders such as Wernicke-Korsakoff syndrome (WKS). WKS is a disease that consists of two separate syndromes, a short-lived and severe condition called Wernicke's encephalopathy and a long-lasting and debilitating condition known as Korsakoff's psychosis.

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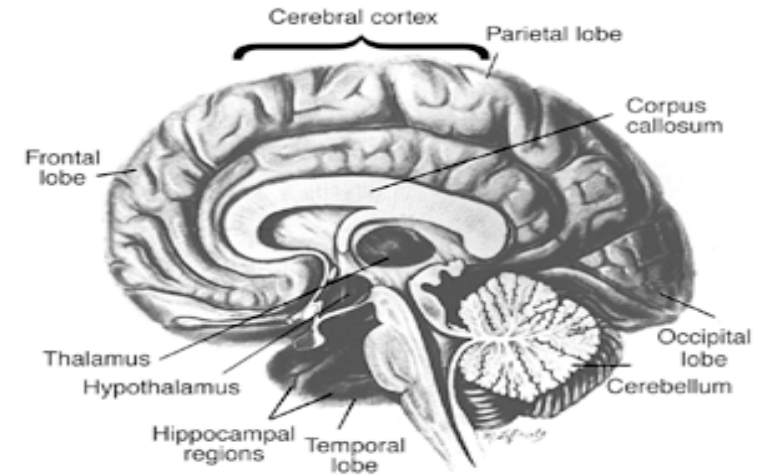
Wernicke-Korsakoff Syndrome Continued

The symptoms of Wernicke's encephalopathy include mental confusion, paralysis of the nerves that move the eyes (i.e., oculomotor disturbances), and difficulty with muscle coordination. For example, patients with Wernicke's encephalopathy may be too confused to find their way out of a room or may not even be able to walk. Many Wernicke's encephalopathy patients, however, do not exhibit all three of these signs and symptoms, and clinicians working with individuals with alcohol use disorder must be aware that this disorder may be present even if the patient shows only one or two of them. In fact, studies performed after death indicate that many cases of thiamine deficiency-related encephalopathy may not be diagnosed in life because not all the "classic" signs and symptoms were present or recognized.

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Wernicke-Korsakoff Syndrome Continued

Approximately 80 to 90 percent of alcoholics with Wernicke's encephalopathy also develop Korsakoff's psychosis, a chronic and debilitating syndrome characterized by persistent learning and memory problems. Patients with Korsakoff's psychosis are forgetful and quickly frustrated and have difficulty with walking and coordination. Although these patients have problems remembering old information (i.e., retrograde amnesia), it is their difficulty in "laying down" new information (i.e., anterograde amnesia) that is the most striking. For example, these patients can discuss in detail an event in their lives, but an hour later might not remember ever having the conversation.

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