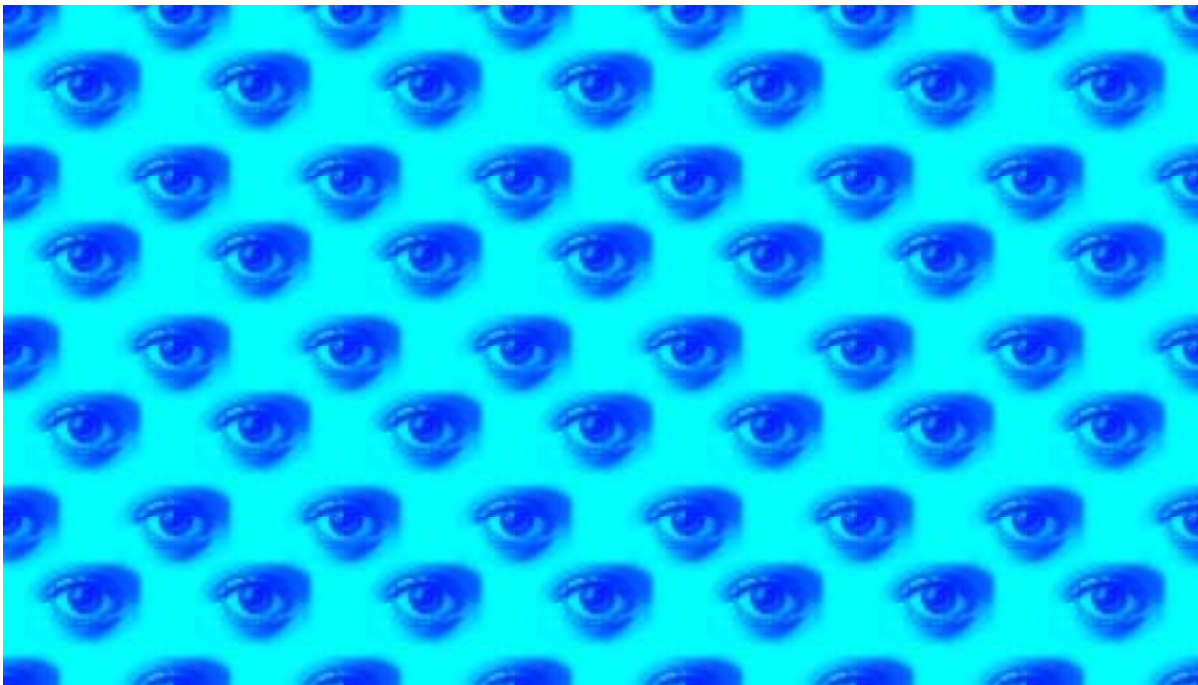




**Blackouts: What are they? How do They
Relate to Understanding and/or Diagnosing
Alcoholism?**

**A Review of the Literature by Kevin J. Drab, MA,
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Blackouts are the occurrence of alcohol-induced amnesia, and not to be confused with passing-out. Commonly the memory gap covers several hours, but may extend for days. The intoxicated person may have carried out activities and conversations fairly normally during the period of amnesia, but has no memory of these events afterwards. Jellinek (1946; 1960) was the first to publish a scientific description and examination of the phenomenon of blackouts, basing his conclusions on limited and highly biased surveys carried out with Alcoholic Anonymous members through that organization's magazine "The Grapevine". He concluded that blackouts marked the beginning of the prodromal phase (early) stage of alcoholism and considered them as reliable signs of the developing disease.

Based on Jellinek's observations, it became an accepted truism in the addictions field that blackouts alone were accurate indicators of alcoholism (in fact it remains one of the more common questions on formal and informal alcoholism assessment instruments such as the Michigan Alcoholism Screening Test (MAST) <http://www.nau.edu/fronske/MASTa.htm> , The Alcohol Dependence Scale (ADS) <http://www.niaaa.nih.gov/publications/ads.htm> , as well as AA's own quiz at http://www.alcoholics-anonymous.org/english/E_Pamphlets/P-3_d1.html and the National Council on Alcoholism and Drug Dependence (NCADD) self-test at <http://www.ncadd.org/pubs/signs2.html>

Aaron White (2000) states in one of the only articles I have been able to find on blackouts: "The belief that blackouts occur primarily among alcoholics remains deeply embedded in both the scientific and popular cultures, despite the fact that the issue has received very little scientific attention (Anthenelli et al., 1994). In the half-century since Jellinek's initial characterization of blackouts, relatively few scientific papers have been published on the topic (Goodwin, 1995). The dearth of reports on alcohol-induced blackouts led Jennison and Johnson (1994) to assert that blackouts have been "neglected as a subject of research". More importantly, this lack of scientific study has perpetuated the fallacy that blackouts, by themselves, are an indication of alcoholism and an inevitable occurrence in alcoholics." See White's informative article (and his references) at <http://www.duke.edu/~amwhite/blackouts.html>

In his online page entitled "Alcohol, Memory, and the Brain" at <http://www.duke.edu/~amwhite/alcmem.html> Aaron White (2002) explains the mechanism of blackouts as follows: "Alcohol primarily interferes with the ability to form new memories, particularly memories that are episodic in nature. Episodic memories are memories for facts (e.g., names, phone numbers, etc.) and events (e.g., what you did last night). The impact of alcohol on the formation of new episodic memories is far greater than the drug's impact on the recollection of previously established memories. For instance, alcohol would have a much bigger impact on the ability to learn a new person's name than on the ability to remember the name of someone that you already know."

"Research with both humans and rodents suggests that alcohol exerts effects learning and memory by disrupting activity in the hippocampus. In humans, alcohol and hippocampal system damage produce a similar pattern of learning and memory impairments, characterized by a disruption in the ability to encode new episodic information. At low

doses, alcohol's effects on encoding can lead to mild impairments in short-term memory. At much higher doses, alcohol's effects on encoding can lead to blackouts, an inability to recall entire events that occurred while intoxicated." For a good article on more about how alcohol affects various parts of the brain see <http://www.howstuffworks.com/alcohol4.htm>

An informal poll of any group of individuals with a history of drinking, will typically find a few who have had blackouts, usually, but not always, associated with heavy alcohol consumption, without any indications that they are or ever were alcoholics. Various surveys of teen-age drinking, for example, have found reports of blackouts in almost a quarter of those who drank (e.g., Martin et al., 1995; Stewart & Brown, 1995). Over the years my informal surveys of alcoholics has found many who had never experienced blackouts. Simply put, blackouts can happen to anyone, and if you're prone to them, drinking more, more often will result in more of them whether you're an alcoholic or not.

Consider that if blackouts were reliable indicators of alcoholism there would be considerable investigation into their implications about the alcoholic versus the nonalcoholic brain. The absence of published research or even discussions of the subject outside of the popular literature would imply that blackouts are not unique to alcoholism. The neurological reasons why some individuals experience blackouts and others don't, regardless of quantities consumed, have little relevance to our quest to understand the nature of alcoholism.

While blackouts can not be considered criteria for directly diagnosing alcoholism, the individual's reactions to them can provide considerable support for concluding they are alcoholic. I typically enquire about blackouts in an assessment to ascertain frequency, seriousness and the client's subsequent attitude towards them. If an individual is experiencing blackouts which are adversely impacting their life, especially if they are expressing some concern about them, and yet she/he continues to drink, I would certainly consider that a strong indication that the individual may be caught up in an addictive process. Consider how a "normal social drinker" would react to a serious blackout, DUI, or other negative consequence of their drinking -- they'd probably be scared or concerned enough to cut back or stop entirely! Far from definitive proof, but it does weight the assessment toward a dependency diagnosis.

As the amount consumed bears some relation to the occurrence of blackouts, this would also raise questions about the level of abuse -- this is probably what originally lead to the association of alcoholism with blackouts, i.e., the more you drink with regard to times and amounts the more likely you'll have more blackouts. That anyone would continue to persevere despite such negative consequences lies at the heart of understanding alcoholism. The DSM-IV-TR (2000) puts it quite succinctly as: "Once a pattern of compulsive use develops, individuals with Dependence may devote substantial periods of time to obtaining and consuming alcoholic beverages. These individuals often continue to use alcohol despite evidence of adverse psychological or physical consequences (e.g., depression, blackouts, liver disease, or other sequelae)" (p. 213).

The effects of long-term use of alcohol is another matter, especially when it comes to cognitive difficulties, such as impaired memory or reasoning ability. See the following article "Alcohol and Cognition" from NIAAA for a good review of what we know about this at: <http://www.niaaa.nih.gov/publications/aa04.htm>

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