

Problem Drinking 101

Paul David, Ph.D.*

Problem drinking is a major personal and public health problem in the U.S. It afflicts over 4% of adolescents and over 8% of adults or about 22 million people in this country (American Psychiatric Association, 2013). The effects of problem drinking are well known and comprise a predictable sequela of physical, mental, and social deterioration for those who suffer from this illness. This article discusses the basic symptoms, etiology, physiology, and treatment of problem drinking, particularly when it becomes addictive.

Symptoms

The National Council on Alcoholism and Drug Dependence (2015) developed the following set of questions to help people decide whether or not they have a drinking problem:

- Yes No 1. Do you occasionally drink heavily after a disappointment, a quarrel, or when the boss gives you a hard time?
- Yes No 2. When you have trouble or feel under pressure, do you always drink more heavily than usual?
- Yes No 3. Have you noticed that you are able to handle more liquor than you did when you were first drinking?
- Yes No 4. Did you ever wake up in the morning after and discover that you could not remember part of the evening before, even though your friends tell you did not pass out?
- Yes No 5. When drinking with other people, do you try to have a few extra drinks when others will not know it?
- Yes No 6. Are there certain occasions when you feel uncomfortable if alcohol is not available?
- Yes No 7. Have you recently noticed that when you begin drinking, you are in more of a hurry to get the first drink than you used to be?
- Yes No 8. Do you sometimes feel a little guilty about your drinking?
- Yes No 9. Are you secretly irritated when your family or friends discuss your drinking?
- Yes No 10. Have you recently noticed an increase in the frequency of your memory blackouts?
- Yes No 11. Do you often find that you wish to continue drinking after your friends say they have had enough?
- Yes No 12. Do you usually have a reason for the occasions when you drink heavily?
- Yes No 13. When you are sober, do you often regret things you have done or said while drinking?
- Yes No 14. Have you tried switching brands or following different plans for controlling your drinking?
- Yes No 15. Have you often failed to keep the promise you made to yourself about controlling your drinking?
- Yes No 16. Have you ever tried to control your drinking by making a change of jobs, or moving to a new location?
- Yes No 17. Do you avoid family or close friends while you are drinking?
- Yes No 18. Are you having an increasing number of financial and work problems?
- Yes No 19. Do more people seem to be treating you unfairly without good reason?
- Yes No 20. Do you eat very little or irregularly when you are drinking?

*This article is adapted from Carolyn Knapp's *Drinking: A Love Story*, 1996, New York, NY: The Dial Press.

- Yes No 21. Do you sometimes have the shakes in the morning and find that it helps to have a little drink?
- Yes No 22. Have you recently noticed that you cannot drink as much as you once did?
- Yes No 23. Do you sometimes stay drunk for several days at a time?
- Yes No 24. Do you sometimes feel very depressed and wonder if life is worth living?
- Yes No 25. Sometimes after periods of drinking, do you see or hear things that aren't there?
- Yes No 26. Do you get terribly frightened after you have been drinking heavily?

If you answer yes to any of the above questions, you have some symptoms that may indicate a problem with drinking. People who answer yes to questions #1-8 are likely to be in the early stages of alcoholism, which typically takes place over ten to fifteen years. Yes to questions #9-21 are associated with the middle stage of alcoholism, which usually lasts around two to five years. Yes to questions #22-26 indicate the beginning of the final stages of alcoholism.

In the final stages, chronic drinking can harm virtually every organ and system in the body. It is the single most important cause of illness and death from liver disease. It can increase the risk of cancer, cardiovascular disease, and such infectious diseases as pneumonia and tuberculosis; it also can alter brain-cell function, shrink the cerebral cortex, throw the body's hormonal system out of balance, and lead to sexual dysfunction.

Normal drinkers have a built-in alarm system that tells them at a certain point to stop drinking. When they ingest alcohol, it passes through the stomach walls and small intestine into the bloodstream, then moves through cell membranes and mixes with the other major organs in the body: brain, liver, heart, pancreas, lungs, and kidneys. Alcohol basically depresses the central nervous system, although at low doses it gives the drinker a heightened, pleasant feeling.

At first, alcohol increases the blood flow, accelerates the heart rate, and stimulates brain cells--making the drinker feel lightheaded, talkative, and energetic. At higher doses the depressive effects are felt. The drinker gets uncoordinated; vision may be impaired, and speech gets slurred. When this begins to happen, the normal drinker usually has that alarm system go off and calls it quits well before that point. Some Asians, who typically have low rates of alcoholism, experienced what is called Asian Flush Syndrome. Too much liquor makes them warm and queasy, causing the heart rate to rise and the blood pressure to drop. These feelings are unpleasant and their self-protective tendency is to abstain.

Etiology & Physiology

There is considerable evidence that addiction to alcohol is inherited with 40-60% of the risk explained by genetic factors. Addiction is three to four times higher for first-degree relatives of alcoholics. A significantly higher rate of alcoholism exists in identical versus fraternal twins. Moreover, a three- to fourfold increase in risk has been found in children of alcoholics, even when these children were given up at birth and raised by adoptive parents who did not have this disorder (American Psychiatric Association, 2013).

Addiction to alcohol is also a neurological phenomenon. When the brain is excessively and repeatedly exposed to alcohol, a complex set of molecular alterations take place that weak

havoc on its systems of craving and reward. Repeated exposure to alcohol compromises the functioning of the brain's neurotransmitters and proteins that create feelings of well being. Essentially, drinking artificially activates the brain's reward system. You have a drink or two and the alcohol activates the part of the brain's circuitry that makes you feel good, increasing the release of the neurotransmitter dopamine, which is central to feeling pleasure and reward. Over time, and given the right combination of genetics and alcohol abuse, the brain adapts to all of that artificial stimulation. In an effort to bring its own chemistry back to its natural equilibrium, the brain begins working overtime to decrease dopamine release, ultimately leaving those same pleasure and reward circuits depleted.

Once the brain moves into this compensatory phase, a vicious cycle ensues. By drinking too much, you basically diminish your brain's ability to manufacture feelings of well-being and calm on its own and you come to depend increasingly on the artificial stimulus of the alcohol to produce those feelings. This is why an alcoholic may wake up after a night of heavy drinking struggling with two competing motivations. The rational part of the brain, taking note of the hangover and the feelings of remorse, kicks in with determination and resolve to stop drinking so much. But the far less rational part—this far more primitive and powerful circuitry of pleasure and reward—speaks in a more compelling voice that says you need alcohol in order to feel good again. From this perspective, alcoholism came to be viewed as a disease.

The idea that alcoholism is a physical illness was first formally advanced by Morton Jellinek (1960) in the early sixties. Although this disease model of alcoholism is not entirely accepted, it is now widely recognized by most health care professionals as a standard. However, the idea that alcoholism is comparable to other diseases, like diabetes, is hard for many active alcoholics to embrace. After all, alcoholism doesn't feel like a disease. Tangible, physical symptoms, such as hangovers or tremors, may appear, but they also pass; they are also easy to ignore, and they don't impede the drinker in clear and obvious ways.

Treatment

Sooner or later, most alcoholics have to grapple with the idea that they have a disease. Some people who are binge drinkers can more easily come to accept that their brains respond to alcohol differently from those of other drinkers. But those people who experience a more gradual and insidious descent into alcoholism have to turn the disease concept over and over in their minds before they can finally accept it. Another difficulty is that many alcoholics see their drinking as more of a character deficiency than a health problem. They see their drinking as a sign of weakness and lack of self-restraint; that it's bad and that it can be overcome with willpower. They often believe that if they can just decipher the underlying reasons for their drinking—the hidden rages and fears, the psychological roots, the problem will resolve itself. In essence, they believe they can resolve their problem with alcohol by means of therapeutic understanding and resolve.

This idea that recovery is more of a matter of insight and will leads many drinkers to seek out individual psychotherapy. However, traditional individual talk therapies have been astoundingly ineffective in treating alcoholism. The nature of the disease of alcoholism suggests why this approach doesn't work. You can load up an alcoholic on a diet of insight, but the body

tends to speak more powerfully than the mind; if the brain is yearning for more alcohol, no number of revelations about underlying causes is going to counter those impulses.

Physiology can also explain why relapse rates are so high. Those neurological reward circuits have extremely long and powerful memories, and once the simple message that alcohol equals pleasure gets imprinted into the drinker's brain, it may stay there indefinitely, perhaps for a lifetime. Environmental cues—the sight of a wine glass, the smell of gin, a walk past a favorite bar—can trigger the wish to drink in a heartbeat. One of the most comprehensive studies on recidivism comes from a Rand Corporation study (Polich, Armor, & Braiker, 1980) tracking 900 recovered alcoholic men over four years. Only 15% remained in continuous remission for the entire four years. In other words, once a drinker has crossed the line into alcoholism, it is a perilous road to return to normal controlled drinking again.

After Bill Wilson, who co-founded Alcoholics Anonymous (AA) in 1935, was first hospitalized for alcoholism, he had to go through another two hospitalizations before he came upon a remedy that seemed to work: talking about the problem with other alcoholics. The reasons this works are varied and complicated, but one of the most essential ingredients has to do with the power of group perspective and support. No matter how sickening the hangover or how humiliating the drunken behavior, alcoholics tend to be incapable of recalling consistently or clearly how bad things are for them when they drink. AA offers a solution by helping alcoholics counter that flaw of selective memory. It helps them remember what it is like for them to drink and highlights how others have changed when they have stopped drinking. And the twelve steps of recovery outlined in AA literature and meetings help counter the buildup of suffering and humiliation, offering a way of life that has to do with honesty and self-awareness, with addressing directly, rather than anesthetizing, the fears and rages that compelled them to drink in the first place.

References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Wash, DC: Author.
- Jellinek, E. M. (1960). *The disease concept of alcoholism*. New York, NY: Hillhouse Press.
- Polich, J. M., Armor, D. J., Braiker, H. B. (1980). *The course of alcoholism: Four years after treatment*. Santa Monica, CA: Rand Corporation.
- The National Council on Alcoholism and Drug Dependence. (2015). What are the signs of alcoholism? Retrieved from: <https://ncadd.org/learn-about-alcohol/alcohol-abuse-self-test>