**See Also:** Addiction and Alcoholism, History of; Alcohol Use Disorder Identification Test; Alcohol Withdrawal Scale; Blackouts; Nutrition; Psychological Effects of Alcohol: Moderate Use.

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# Psychological Effects of Alcohol: Moderate Use

Alcohol is a common but historical drug of abuse. Fermented drinks containing alcohol were produced and consumed from as long ago as 10,000 B.C.E. in the Neolithic period, and research suggests beer was widely used even prior to bread. Berries, honey, grapes, and rice were some products used as a base for fermentation for thousands of years. Along with its social properties of enhancing relaxation and facilitating social connections (disinhibition), alcohol was used for pharmaceutical purposes as well. Although alcohol has some medicinal purposes, currently its most common use is for socialization, relaxation,

psychological coping, anxiety management, and emotional inhibition, among other psychosocial intentions.

### **Effects of Heavy Drinking**

Because of the effects it has on mental and physical functioning, individuals continue to use alcohol heavily to maintain their indulgent behaviors. Heavy alcohol use proves problematic physically, socially, and psychologically.

Physically, alcohol affects a wide array of bodily functions. Drinking heavily or excessively over a long period can cause heart problems such as arrhythmia, stroke, high blood pressure, and cardiomyopathy (drooping of the heart muscle). The liver, which plays a factor in the body's metabolism, digestion, and detoxification, is enormously affected by excessive alcohol consumption. Potential health concerns include fatty liver (steatosis), fibrosis, cirrhosis, alcohol hepatitis, renal failure, and even death. Certain cancers develop because of large amounts of alcohol use, including mouth, esophagus, throat, liver, and breast cancers. In short, heavy alcohol use can contribute to an overall deterioration of the body's functioning, including renal, immune, hepatic, and digestive system consequences, and even death.

Socially, excessive alcohol use proves destructive, dangerous, and detrimental. The *Diagnostic* and *Statistical Manual of Mental Disorders*, 4th edition, text revision (DSM–IV–TR) defines the social implications of alcohol use as its alcohol abuse criteria:

(A) A maladaptive pattern of drinking, leading to clinically significant impairment or distress, as manifested by at least one of the following occurring within a 12-month period: (1). Recurrent use of alcohol resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to alcohol use; alcohol-related absences, suspensions, or expulsions from school; neglect of children or household). (2). Recurrent alcohol use in situations in which it is physically hazardous (e.g., driving an automobile or operating a machine when impaired by alcohol use). (3). Recurrent alcohol-related legal problems (e.g., arrests for alcohol-related disorderly conduct). (4). Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol (e.g., arguments with spouse about consequences of intoxication).

For example, such extensive drinking may affect an entire workplace as a result of decreased job production, absenteeism, and injuries. The Centers for Disease Control and Prevention reported more than 10,000 deaths in 2010 linked to alcohol-related motor vehicle crashes. Research by Evelyn Whitlock and colleagues has shown that "injury rates are higher for binge drinkers who consume five or more drinks on one occasion as infrequently as three to six times per year, even when average intake is not excessive." These social impairments can cause significant personal, familial, and societal problems such as motor vehicle accidents, legal issues, and harm to children.

Psychologically, heavy alcohol use produces significant concerns that may have an acute or chronic impact—depending on the individual, consumption amount, and situation. Alcohol abuse can interfere with the brain's capacity to function and its communication pathways. It directly affects the hippocampus functioning, which is the center of short-term memory, longterm memory, and spatial navigation. Research has shown that depression and alcohol use are strongly linked. On one hand, depression can lead to excessive alcohol use. The National Institute on Alcohol Abuse and Alcoholism (NIAAA) found that nearly one-third of individuals who struggled with depression also had an alcohol abuse concern. On the other hand, alcohol is a depressant, which means that it slows down the central nervous system. Studies have shown that, along with alcohol being a depressant, the fluctuation of alcohol in the body proves harmful for one's psychological well-being. In a June 18, 2010, post on Psychology Today's online magazine, behavioral neuroscience researcher Joshua Gowin stated the following:

Drinking profoundly alters mood, arousal, behavior, and neuropsychological functioning. However, studies have found that the specific effects depend not just on how much someone drinks, but also on whether blood alcohol

content (BAC) is rising or falling; while in the process of drinking, alcohol acts as a stimulant, but as drinking tapers off it begins to act more as a sedative. As BAC ascends, drinkers report increases in elation, excitement and extroversion, with simultaneous decreases in fatigue, restlessness, depression and tension. Conversely, a descending BAC corresponds to a decrease in vigor and an increase in fatigue, relaxation, confusion, and depression.

These are just some examples of the impact of heavy alcohol use on psychological health and well-being.

#### **Benefits of Moderate Drinking**

Although heavy drinking may be extremely harmful physically, socially, and psychologically, research has shown that moderate alcohol use is beneficial in many of these same aspects. A study in the *New England Journal of Medicine* discussed associations between moderate drinking and health consequences, stating the following:

A cognitive benefit from moderate alcohol intake is plausible, given the strong link between moderate alcohol intake, and the decreased risk of cardiovascular disease; cognitive impairment and cardiovascular disease share common risk factors.

The NIAAA defines "moderate" drinking as a recommended amount of one or less standard drink per day for adult women and two or fewer standard drinks per day for adult men. These recommendations do not apply to pregnant women, those using medication, or adolescents. A standard drink is defined as the following: a 12-ounce bottle or can of regular beer, a 5-ounce glass of wine, or a 1.5-ounce of 80 proof distilled spirits.

Research has shown many physical health benefits from moderate alcohol consumption. A U.S. study discovered that moderate drinkers had fewer acute hospitalizations. The NIAAA found that moderation was linked with reduced risk for all-cause mortality, and the institute concluded that there was lower incidence of coronary heart disease among individuals who used alcohol moderately. Moderate consumption of alcohol also increases high density lipoprotein (HDL),

which is the "good" cholesterol, and decreases the "bad" low density lipoprotein (LDL); this increase of HDL is a preventive measure against stroke. A study in the Journal of the American *Medical Association* showed that drinking one to two drinks a day can reduce the risk of stroke by half. The National Stroke Association explained that alcohol is also "considered to be a mild blood thinner, which may prevent clots from forming in blood vessels and causing a stroke." Furthermore, a Columbia University study concluded that moderate alcohol use is "associated with decreased risk of IS [ischemic stroke] in a multiethnic population." Although moderate drinking may decrease the risk for stroke, increasing alcohol use may raise the possibilities for stroke, liver damage, and heart disease.

Psychological, social, and cognitive benefits are also associated with moderate alcohol consumption. Psychosocially, single occasions of alcohol use during positive drinking experiences in various social situations provide psychological benefits for individuals. Socially, "normal, moderate drinkers report consistent but mild positive expectations and experiences from drinking with respect to mood, physical sensations, and social benefits," according to researchers Stanton Peele and Archie Brodsky. Their research determined that drinking alcohol has three distinct purposes, including associating with other individuals socially, increasing positive mood, and coping with negative mood. Alcohol use has also been studied in its relation to work performance and the workplace. Individuals who moderately drink alcohol may have better rates of psychosocial adjustment and increased involvement with employment-related social experiences. This can enhance workplace functionality and coherence, as the employee seems to take part in more company-related activities. Peele and Brodsky's research also found that abstainers and excessive drinkers were more absent from work than were moderate drinkers. Social cohesion can also boost health outcomes in heart disease and infectious disease. In particular, Peele and Brodsky state the following:

to a greater degree than either abstainers or heavy drinkers, moderate drinkers have been found to experience a sense of psychological, physical, and social well-being; elevated mood; reduced stress (under some circumstances); reduced psychopathology, particularly depression; enhanced sociability and social participation; and higher incomes and less work absence or disability.

Much research has been conducted on brain functioning and cognition, in particular cognitive benefits to moderate alcohol use. Although chronic and excessive amounts of alcohol consumption may produce negative neuropsychological consequences, moderate use is related to increased cognitive functioning in a wide array of domains. Peele and Brodsky stated that "across varied populations and utilizing different measures of cognitive functioning have found that long-term cognitive functioning is often superior for moderate drinkers relative to abstainers." Alzheimer's disease, which is highly associated with one's cognitive state, proves to be influenced by alcohol consumption as well. A study concerning the relationship between alcohol consumption and risk for dementia concluded that moderate drinkers have the lowest relative risk for Alzheimer's disease. Research completed on cognitive functioning tests found that light drinkers (about a drink a week) scored significantly better than abstainers on a digit-span exercise (repeating numbers). The National Heart, Lung, and Blood Institute concluded that "reduced rates of Alzheimer's and dementia/poor cognitive functioning have been associated with light-moderate drinking, along with enhanced activities of daily living." Research on cardiovascular disease and cognitive impairment has found many risk-factor similarities between the two. Moderate alcohol consumption is associated with decreased risk for cardiovascular disease and cognitive impairment. In addition, moderate use increases the release of brain acetylcholine, which is a neurotransmitter that affects memory and cognition. Alcohol use and cognition has been studied in older adults as well. Research has shown that older adults who consumed moderate amounts of alcohol also had better cognitive functioning, better well-being, and less depressive symptomology.

#### Conclusion

Although heavy and excessive alcohol consumption can cause many physical and psychological difficulties, moderate drinking may provide

some benefits. In particular, moderate alcohol use increases psychological, social, and cognitive functioning for a wide array of health concerns. Some effects on physical well-being include lowering the risks for cardiovascular disease and coronary heart disease and reducing the probability of stroke. Importantly, the psychosocial benefits of moderate alcohol use include increased social outreach, improved workplace functioning, and reduced work absences. Psychological and cognitive enhancements seem prominent through cognitive testing and decreased Alzheimer's symptoms. These factors of increased quality of life related to moderate alcohol use prove significant for an individual's physical health and mental well-being.

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**See Also:** Depression, History of Alcohol and; Nutrition; Physiological Effects of Alcohol: Chronic Abuse; Physiological Effects of Alcohol: Moderate Use; Pregnancy, History of Alcohol and; Psychological Effects of Alcohol: Chronic Abuse.

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## **Pub Crawls**

A pub crawl is a tour that visits several drinking places. Some are highly organized, while others