

# ▶ diseases and disorders

## ▶ Alcoholism

According to *Webster's New Riverside University Dictionary*, alcoholism is "the excessive consumption of, and psycho-physiological dependence on alcoholic beverages; a chronic pathological condition, chiefly of the nervous and gastroenteric systems caused by habitual excessive alcoholic consumption." This definition differs greatly from one recorded in 1784 in *An Inquiry into the Effects of Ardent Spirits on the Human Mind and Body* by Benjamin Rush, who wrote, "Drunkenness is the result of a loss of willpower. Initially, drinking is purely a matter of choice. It becomes a habit and then a necessity."

Throughout history, dependence on alcohol has been blamed on the user and a lack of morality. Those perceptions have changed a great deal over the years, and dependence is now recognized by the mental health community not only as a disease and a serious problem for the user, but also as a serious problem for society. The *Diagnostic and Statistical Manual of Mental Disorders*, 4th ed., Text Revision, says that alcohol dependence is a maladaptive pattern of alcohol use, leading to clinically significant impairment or distress as seen in 3 or more of the following behaviors at any time in the same 12-month period: an extremely high alcohol tolerance; withdrawal symptoms such as hyperactivity, hand tremors, insomnia, and anxiety; drinking alcohol in greater amounts than intended; a persistent and unsuccessful desire to reduce consumption; spending a great deal of time to obtain alcohol; a sense of giving up; and continued use of alcohol despite awareness of having a constant physical or psychological problem that was caused by alcohol.

Alcohol is a depressant. When the percent of alcohol in the blood, known as the blood alcohol level, is at least 0.05%, judgment and restraint are adversely affected. At a level of 0.1%, motor skills become awkward. When the blood alcohol level reaches 0.2%, the entire area of the brain that controls motor function is negatively affected. At 0.3%, the person is likely to be confused. An individual with a blood alcohol level of 0.4% or higher may go into a coma. If blood alcohol levels exceed 0.5%, a person might choke on vomit or stop breathing. Prolonged alcohol use can alter the genes of brain cells. People with alcoholism may have impaired memory, poor concentration, and inability to focus after a distraction.

Studies show that the first episode of intoxication is likely to occur when users are in their mid-teens, with disease onset in the 20s to mid-30s. According to the National Institute on Alcohol Abuse and Alcoholism, it is estimated that nearly 14 million people in the United States—1 in 13 adults—abuse or are addicted to alcohol.

Unlike the treatment of alcoholism in the past, which consisted of simply locking away alcohol-dependent people in asylums with little chance of rehabilitation, treatment for this disorder has evolved significantly. The most common treatments fall into three categories: self-help groups, psychosocial approaches, and pharmacologic treatments.

The self-help groups rely heavily on social support to help individuals overcome their dependence. Recovering alcoholics, who were once dependent themselves, usually provide the support and motivation. The psychosocial approach to alcohol treatment uses three different methods. One is motivational enhancement therapy. With this treatment, patients work directly with professional therapists, who use motivational techniques to encourage them to think about how alcohol affects

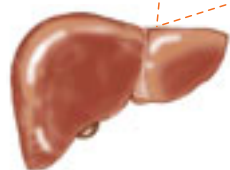
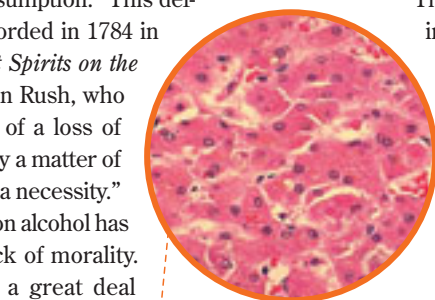
their lives and to develop and implement plans to stop drinking. Cognitive behavior therapy is another therapeutic method. It teaches skills that help patients cope with situations and emotions that could lead to drinking. The third psychosocial approach is couples therapy, which stresses strengthening relationships and improving communication in addition to reducing drinking. Finally, brief intervention therapy is conducted by a primary care physician,

who provides basic information and counseling about the negative consequences of alcohol consumption.

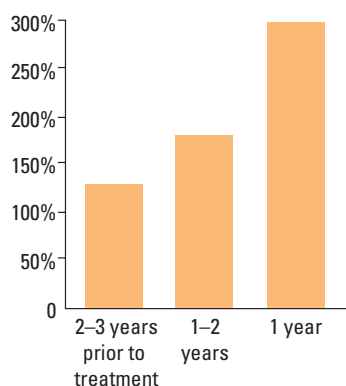
Health professionals have attempted to treat alcoholism with medication since the 1940s. The goal of using medication is to treat withdrawal symptoms and maintain abstinence. In the detoxification stage, benzodiazepines (e.g., Valium or Librium) are usually prescribed to ease the severe effects of withdrawal. Unfortunately, benzodiazepines can be highly addictive, so they are only prescribed for a few days. Only two drugs are approved in the United States for treatment of alcohol dependence: disulfiram (Antabuse), which causes severe physical discomfort in people who consume alcohol, and naltrexone (ReVia), which reduces cravings and blocks the effects of alcohol.

The future of treatment for alcoholism is very promising. As science reveals more about the connection between the brain and behavior, such as how brain chemistry affects cravings and the urge to drink, researchers are developing new treatments that could further help people afflicted with alcohol dependence.

—FELICIA M. WILLIS



Liver showing alcoholic hyaline characteristics.



Health care costs for alcohol abusers as a percentage of costs for nonalcoholics in the years before substance abuse treatment.