

Alcohol use and great expectations

Some people think of alcohol as a kind of magical elixir that replaces unpleasant feelings with a confidence-enhancing "high" and an array of heightened social and physical pleasures. Mix this expectation with alcohol's "two-faced" physical effects — it acts as a stimulant at low doses and a depressant at high doses — and the stage is set for a vicious cycle leading to alcohol addiction, says psychologist G. Alan Marlatt of the University of Washington in Seattle.

"Any short-term relief [from drinking] is quickly dispelled by the delayed negative effects which in turn give rise to another attempt to gain relief," he says. "The expected solution exacerbates the initial problem."

Several studies have shown that low doses of alcohol pump up heart rate, skin conductance and motor and perceptual performance, whereas higher doses depress these measures of physiological arousal. The initial arousal and energy boost provided by alcohol may feed into expectations that its effects will only be for the better, suggests Marlatt. A number of factors influence expectations about alcohol's effects, including cultural beliefs, personal experience with the substance, the setting in which it is consumed and physiological sensitivity and tolerance. Furthermore, explains Marlatt in the *SUMMER ALCOHOL HEALTH & RESEARCH WORLD*, recent research indicates that heavy drinkers and alcoholics are far more likely to expect alcohol to transform their emotional state in all sorts of positive ways, while light drinkers have limited expectations of how alcohol will affect them.

Marlatt proposes that moderate drinking serves to enhance or maintain a neutral or positive emotional state. One example, he says, is someone at a wedding reception whose good mood is heightened by drinking champagne, even if overindulgence results in fatigue or slight discomfort later on. Addictive use, however, may be an attempt to transform or cope with a negative emotional state. Consider a heavy-drinking businessman, says Marlatt. He may drink before meeting clients to alleviate hangover effects from the past night's drinking and to fortify his confidence. But because of his tolerance for the drug, he needs several drinks before its stimulating effects kick in. Several hours later he feels tired, restless and unable to concentrate. More alcohol is then sought to provide temporary relief, illustrating the vicious cycle of his alcohol craving.

Research on addiction-prone expectations about alcohol's effects may lead to improved alcohol education and prevention programs, notes Marlatt.

TV-suicide link: Fatal retraction

Last year, researchers reported that teenage suicides rose significantly in New York City in the two weeks after three recent made-for-television movies about suicide aired (*SN*: 9/20/86, p.182). Researchers at the University of California at San Diego now find, however, that teenage suicide rates in California and Pennsylvania actually declined in the two weeks following the same movies.

"We conclude that it is premature to be concerned about possibly fatal effects of fictional televised films about suicide," write David P. Phillips and Daniel J. Paight in the Sept. 24 *NEW ENGLAND JOURNAL OF MEDICINE*.

Overall, there were 33 teenage suicides before and 19 suicides after the television movies in California, and 20 suicides before and 13 suicides after the movies in Pennsylvania. This contrasts with 3 suicides before and 13 suicides after the presentations in New York City. But the researchers add that other studies show a significant increase in teen and adult suicides just after television and newspaper reports of actual suicides, especially if the reports are repeated on different days and run by several media sources.

Black infant mortality risks studied

Despite some impressive technological advances in the care of underweight infants, black infants in the United States still are twice as likely as white infants to die during their first year. Two recent studies reported in the Sept. 17 *NEW ENGLAND JOURNAL OF MEDICINE* have refined the search for the cause of this disparity by focusing on premature births and low-birthweight infants. Previous studies had found that infant mortality is related to premature birth or birthweight.

Researchers at Brigham and Women's Hospital, Harvard School of Public Health and the Harvard Community Health Plan of Boston interviewed 1,365 black women and 7,538 white women who had babies at Boston Hospital for Women between 1977 and 1980. Medical records were reviewed, as were known socioeconomic risk factors. The scientists found that, among the possible medical factors, only the hematocrit level "accounts for a substantial portion of the increased risk for premature births among blacks." Hematocrit is the percentage of red cells in the blood. The authors point out that a low hematocrit may mean that the fetus is not receiving adequate oxygen, or that the mother may be suffering from a condition like poor nutrition.

Nonmedical risk factors examined included single marital status, receiving welfare support, age less than 20 years, and not having graduated from high school. The more of these factors present, the greater the increase in the rate of prematurity, say the scientists. They conclude that these risks, along with low hematocrit levels and related factors, account for all the increased risk of premature births to black women.

Researchers at the National Center for Health Statistics in Hyattsville, Md., and the Bureau of Health Care Delivery and Assistance in Rockville, Md., divided the category "low-birthweight" into the standard subgroups of very-low-birthweight (less than 1,500 grams) and moderately-low-birthweight (1,500 to 2,500 grams) for their analysis of 1983 birth certificate data from 47 states. Compared to white women, black women are three times more likely to have a very-low-birthweight infant and more than twice as likely to have one of moderately low birthweight. Using similar data, the authors also conclude that, between 1973 and 1983, "births of infants with moderately low birthweights decreased more among whites than among blacks, whereas births of infants with very low birthweights increased among blacks and decreased among whites." They agree that socioeconomic factors play a role, but they say that the contribution to infant mortality by births to black teenagers has been "overemphasized" and that solutions "may be more complex than previously believed."

Implanted magnet helps restore hearing

A hearing device that includes a tiny magnet implanted in the skull behind the ear has been cleared for marketing by the U.S. Food and Drug Administration, manufacturers of the device announced in September. Designed to help people with a type of hearing impairment called conductive hearing loss, the device's external, detachable sound-processing portion is held in place by the magnet. It converts sound into vibrations in much the same way as other hearing aids, but can transmit those vibrations directly to the magnet and then to the inner ear for a clearer sound, say scientists. Manufactured by Xomed Inc. of Jacksonville, Fla., the device will not help the majority of hearing-impaired people, since conductive hearing loss — caused by infection or other malfunction of the middle ear — accounts for no more than 20 percent of those with hearing problems and often is corrected by surgery, says Xomed Vice-President Donald R. Bruce. But it may help many unimproved by surgery and those plagued by persistent ear infections, because it leaves the ear free to drain.