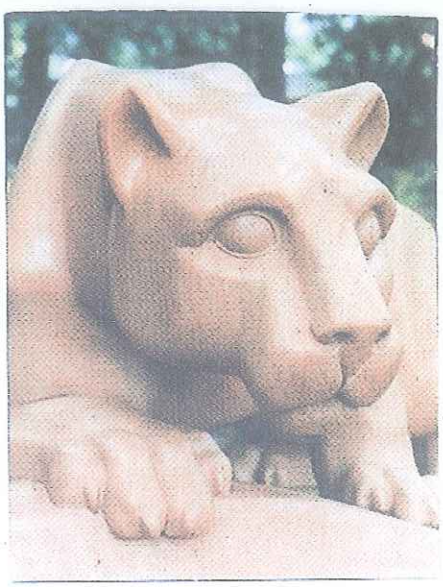


In 1994, the Harvard School of Public Health, with support from the Robert Wood Johnson Foundation, published a study of binge drinking on 140 college campuses nationwide. A total of 17,592 students participated. High binge-drinking schools were identified as large public colleges in the Northeast or the Midwest with a bar within a one-mile radius, boasting strong athletic programs, having residence halls on campus and allowing twenty-one-year-olds to drink there, maintaining an active fraternity and sorority system, and serving alcohol on campus. Though not named in the study, Penn State was one of the participating schools and received results particular to its undergraduate population. According to the study:

—62 percent of Penn State students binged when they drank
—47 percent were drunk three or more times in the past month
—72 percent experienced hangovers because of drinking
—46 percent missed a class
—44 percent did something they regretted
—45 percent forgot where they were or what they did
—26 percent participated in unplanned sexual activity
—51 percent drink to get drunk
—37 percent had been insulted or humiliated by someone who was drinking
—60 percent had to "baby-sit" a drunken student
—30 percent experienced unwanted sexual advances
—0 percent considered themselves a problem drinker

'But I'm lucky to be here'

By MARIA BILLIAS

A Darwin man told yesterday how his left arm was amputated after being bitten nine times by a deadly snake.

Gordon Lyons said he almost died after his heart stopped three times on the operating table at Royal Darwin Hospital.

He spent seven weeks in a coma and was kept alive with a dialysis machine and ventilator after a king brown bit his left arm two months ago.

Mr Lyons, who has still not regained movement in his legs, said doctors revived him three times on the operating table.

He said: "I'm lucky to be here right now."

● Continued Page 2

Gordon Lyons ... lucky to be alive after being bitten by a potentially deadly king brown snake

● From Page 1

"But I still can't believe my arm's been chopped off just for one snake. I still have my life and I guess that's the most important thing."

Mr Lyons said he was bitten by the snake, considered to be one of the most venomous, after he picked it up from the side of the road near Litchfield.

Mr Lyons, who admitted he was drunk at the time, said he and a mate had been driving from Manderah to Darwin when they saw it.

He said: "I remembered the guys at the Manderah Pub wanted something to put in their huge fish tank.

"But I made the stupid mistake of grabbing it with my left hand because I was holding a beer in my right one. I had its head in my hand but it got loose and grabbed the web of my left hand ... its fangs were that big it ripped my hand open.

"I tore it off me and put it in a plastic bag and threw it in the back of the car.

Stupid

"For some stupid reason, I stuck my hand back in the bag, and it must have smelled blood, and it bit me another eight times."

Mr Lyons said he began vomiting and suffering diarrhoea "about three seconds later".

He said: "My mate was trying to keep me awake by whacking me in the head and pouring beer on me."

Mr Lyons said his last memory was passing out, covered in blood, at the Noonamah Hotel moments before being taken by ambulance to the Royal Darwin Hospital.

RDH specialist physician Bart Currie said the venom had caused severe damage to Mr Lyons' muscles, which led to his left arm turning black and becoming "dead".

Mr Currie said: "Of all the snake bites in Australia I'm aware of, this man is the sickest to have ever survived."

Beer as health food

GEORGE WILL

PERHAPS LIKE many sensible citizens, you read Investor's Business Daily for its sturdy common sense in defending free markets and other rational arrangements.

If so, you, too, may have been startled recently by an astonishing statement on that newspaper's front page. It was in a report on the intention of the world's second-largest brewer, Belgium's InBev, to buy control of the third-largest, Anheuser-Busch, for $46.3 billion. The story asserted: "The [alcoholic beverage] industry's continued growth, however slight, has been a surprise to those who figured that when the economy turned south, consumers would cut back on non-essential items like beer. ... "

"Non *what*"? Do not try to peddle that proposition in the bleachers or at the beaches in July. It is closer to the truth to say: No beer, no civilization.

The development of civilization depended on urbanization, which depended on beer. To understand why, consult Steven Johnson's marvelous 2006 book, "The Ghost Map: The Story of London's Most Terrifying Epidemic – and How It Changed Science, Cities, and the Modern World." It is a great scientific detective story about how a horrifying cholera outbreak was traced to a particular neighborhood pump for drinking water. And Johnson begins a mind-opening excursion into a related topic this way:

Lifesaver

"The search for unpolluted drinking water is as old as civilization itself. As soon as there were mass human settlements, waterborne diseases like dysentery became a crucial population bottleneck. For much of human history, the solution to this chronic public-health issue was not purifying the water supply. The solution was to drink alcohol."

The development of civilization depended on urbanization, which depended on beer.

Often the most pure fluid available was alcohol – in beer and, later, wine – which has antibacterial properties. Sure, alcohol has its hazards, but as Johnson breezily observes, "Dying of cirrhosis of the liver in your forties was better than dying of dysentery in your twenties." Besides, alcohol, although it is a poison, and an addictive one, became, especially in beer, a driver of a species-strengthening selection process.

Johnson notes that historians interested in genetics believe that the roughly simultaneous emergence of urban living and the manufacturing of alcohol set the stage for a survival-of-the-fittest sorting-out among the people who abandoned the hunter-gatherer lifestyle and, literally and figuratively speaking, went to town.

To avoid dangerous water, people had to drink large quantities of, say, beer. But to digest that beer, individuals needed a genetic advantage that not everyone had – what Johnson describes as the body's ability to respond to the intake of alcohol by increasing the production of particular enzymes called alcohol dehydrogenases. This ability is controlled by certain genes on chromosome four in human DNA, genes not evenly distributed to everyone. Those who lacked this trait could not, as the saying is, "hold their liquor." So, many died early and childless, either of alcohol's toxicity or from waterborne diseases.

The gene pools of human settlements became progressively dominated by the survivors – by those genetically disposed to, well, drink beer. "Most of the world's population today," Johnson writes, "is made up of descendants of those early beer drinkers, and we have largely inherited their genetic tolerance for alcohol."

Johnson suggests, not unreasonably, that this explains why certain of the world's population groups, such as Native Americans and Australian Aborigines, have had disproportionately high levels of alcoholism: These groups never endured the cruel culling of the genetically unfortunate that town dwellers endured. If so, the high alcoholism rates among Native Americans are not, or at least not entirely, ascribable to the humiliations and deprivations of the reservation system. Rather, the explanation is that not enough of their ancestors lived in towns.

Good news

But that is a potential stew of racial or ethnic sensitivities that we need not stir in this correction of Investor's Business Daily. Suffice it to say that the good news is really good: Beer is a health food. And you do not need to buy it from those wan, unhealthy-looking people who, peering disapprovingly at you through rimless Trotsky-style spectacles, seem to run all the health food stores.

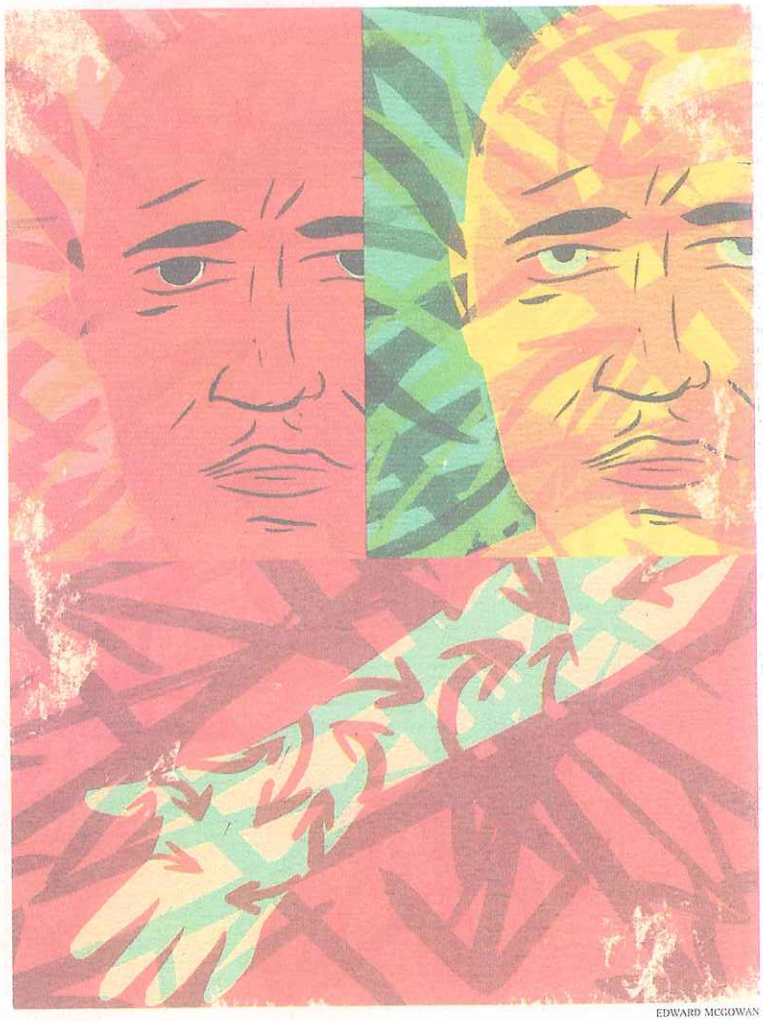
So let there be no more loose talk – especially not now, well into summer – about beer not being essential. Benjamin Franklin was, as usual, on to something when he said, "Beer is living proof that God loves us and wants us to be happy." Or, less judgmentally, and for secular people who favor a wall of separation between church and tavern, beer is evidence that nature wants us to *be*.

George Will's e-mail address is georgewill@washpost.com.

ESSAY

Addiction Doesn't Discriminate? Wrong

By SALLY SATEL, M.D.



EDWARD MCGOWAN

We've heard it before. "Drug abuse is an equal opportunity destroyer." "Drug addiction is a bipartisan illness." "Addiction does not discriminate; it doesn't care if you are rich or poor, famous or unknown, a man or woman, or even a child."

The phrase "addiction doesn't care" is not meant to remind us that addiction casts a long shadow — everyone knows that. Rather, it is supposed to suggest that any individual, no matter who, is vulnerable to the ravages of drugs and alcohol.

The same rhetoric has been applied to other problems, including child abuse, domestic violence, alcoholism — even suicide. Don't stigmatize the afflicted, it cautions; you could be next. Be kind, don't judge.

The democratization of addiction may be an appealing message, but it does not reflect reality. Teenagers with drug problems are not like those who never develop them. Adults whose problems persist for decades manifest different traits from those who get clean.

So while anyone can theoretically become an addict, it is more likely the fate of some, among them women sexually abused as children; truant and aggressive young men; children of addicts; people with diagnosed depression and bipolar illness; and groups including American Indians and poor people.

Attitudes, values and behaviors play a potent role as well.

Imagine two people trying cocaine, just to see what it is like. Both are 32-year-old men with jobs and families. One snorts a line, loves it and asks for more. The other also loves it but pushes it away, leaves the party and never touches it again. Different values? Different tolerance for risk? Many factors may distinguish the two cocaine lovers, but only one is at risk for a problem.

Asking for more drug is no guarantee of being seduced into routine use. But what if it happens? Jacob Sullum, a senior editor at Reason magazine, has interviewed many users who became aware that they were sliding down the path to addiction.

"It undermined their sense of themselves as individuals in control of their own destinies," Mr. Sullum wrote in his 2003 book, "Saying Yes: In Defense of Drug Use." "And so they stopped."

I only read about these people. Patients who come to our methadone clinic are there, obviously, because they're using. The typical patient is someone who has been off heroin for a while (maybe because life was good for

Sally Satel is a psychiatrist and a resident scholar at the American Enterprise Institute.

Slogans aside, addiction is a more likely fate for some.

while, maybe because there was no access to drugs, maybe because the boss did urine testing) and then resumed.

But the road to resumption was not unmarked. There were signs and exit ramps all along the way. Instead of heeding them, our patients made small, deliberate choices many times a day — to be with other users, to cop drugs for friends, to allow themselves to become bored — and soon there was no turning back.

Addiction does indeed discriminate. It "selects" for people who are bad at delaying gratification and gauging consequences, who are impulsive, who think they have little to lose, have few competing interests, or are willing to lie to a spouse.

Though the National Institute on Drug Abuse describes addiction as a "chronic and relapsing disease," my patients, seeking help, are actually the exception. Addiction is not an equal opportunity destroyer even among addicts because, thankfully, most eventually extricate themselves from the worst of it.

Gene Heyman, a lecturer and research psychologist at Harvard Medical School and McLean Hospital, said in an interview that "between 60 and 80 percent of people who meet criteria for addiction in their teens and 20s are no longer heavy, problem users by their 30s." His analysis of large national surveys revealed that those who kept using were almost twice as likely to have a concurrent psychiatric illness.

None of this is to deny that brain physiology plays a meaningful role in becoming and staying addicted, but that is not the whole story.

"The culture of drink endures because it offers so many rewards: confidence for the shy, clarity for the uncertain, solace to the wounded and lonely," wrote Pete Hamill in his memoir, "A Drinking Life." Heroin and speed helped the screenwriter Jerry Stahl, author of "Permanent Midnight," attain the "the soothing hiss of oblivion."

If addiction were a random event, there would be no logic to it, no desperate reason to keep going back to the bottle or needle, no reason to avoid treatment.

The idea that addiction doesn't discriminate may be a useful story line for the public — if we are all under threat then we all should urge our politicians to support more research and treatment for addiction. There are good reasons to campaign for those things, but not on the basis of a comforting fiction.

Fear of Opioid Addiction Means Untreated Pain

MEDIA coverage of OxyContin abuse has ignited long-standing fears about opioids, a group of pain-relieving drugs related to opium. As many as 300 fatal OxyContin overdoses may have occurred in the last 2 years; the medication can provide an immediate high when crushed because the entire dose of its active ingredient, a synthetic form of morphine known as oxycodone, is released at once.

As a result of the negative publicity, medically appropriate use of opioids to treat pain has been overshadowed by misperceptions that all opioids are dangerous drugs. Many people—despite severe pain—do not want to take them, fearing addiction as well as social stigma.

Patients are not always alone in harboring concerns over opioids. Many physicians are also wary. Daniel Carr, MD, medical director of the Tufts-New England Medical Center's Pain Management Program, says that while there's a growing acceptance of opioids in the medical community, "doctors are members of society too, so they share some of the same fears of the drugs."

For instance, opioids are the mainstay for the mitigation of cancer pain as well as short-term pain resulting from, say, an injury or surgery, but increased wariness of them is leading to their being underprescribed. Physicians are even more hesitant to prescribe them for people with long-term pain unrelated to cancer, such as back pain. Such underutilization of opioids means that many Americans with chronic pain are suffering needlessly.

The truth about opioid addiction

Opioids act by binding to receptors in the brain and spinal cord. In doing so, they blunt the transmission of pain messages to the brain. Some opioids, like morphine and codeine, are naturally derived from opium, while others, including methadone and fentanyl, are synthetic.

Both types carry the potential for addiction and abuse. But "addiction is an unlikely event" in people who take opioids for chronic pain under a physician's careful supervision, says Tufts's Dr. Carr. Indeed, when investigators at the University of Wisconsin Medical School compared national data on medical use and abuse of five opioid painkillers over a 6-year period, they found that despite a significant increase in prescriptions, there were not significantly more cases of opioid abuse.

The fear of opioid addiction in the face of evidence to the contrary is based largely on people's confusion about what addiction actually means. **Many people erroneously equate addiction with physical dependence. People who take opioids for a prolonged period of time usually do develop physical dependence,** which means that they would experience withdrawal symptoms—nausea, vomiting, cramps, tremors—if the medication were abruptly discontinued. But this is a normal state of adaptation that can occur with drugs other than opioids and that can be prevented by gradually tapering the dosage.

Addiction, by contrast, is an adverse response to a medication with a strong psychological component, characterized by craving and compulsively seeking the drug. Someone who is addicted is preoccupied with obtaining and using the substance to such an extent that his or her day-to-day function becomes greatly impaired. **People who are addicted to opioids often exhibit "drug-seeking" behaviors, such as visiting multiple doctors and "losing" prescriptions.**

According to June Dahl, PhD, professor of pharmacology at the University of Wisconsin Medical School and co-author of the 6-year study on opioid abuse, the few people who do become addicted to medically prescribed opioids and exhibit those behaviors generally have a prior history of substance abuse. Furthermore, researchers speculate that people who seek drugs for illicit rather than medicinal purposes have a genetic predisposition to addiction. Many develop a tolerance to the drugs, too, needing more and more to feel the same effects, while most people *prescribed* opioids are able to stay at a constant dose of medication for a long period of time without a reduction in the drug's pain-killing effects. In other words, it's not the opioid that's the source of the trouble as much as the opioid taker. Opioids are not "intrinsically dangerous," comments Russell Portenoy, MD, chairman of the Department of Pain Medicine and Palliative Care at Beth Israel Hospital in New York.

A protocol for including opioids in pain treatment

To allay concerns about opioids, the Federation of State Medical Boards, which is the umbrella organization for all the medical boards across the country, issued guidelines a few years ago on prescribing opioids for the treatment of chronic pain while minimizing the risk for addiction and abuse. "Physicians have been overly cautious [in prescribing opioids] because they are worried about addicting patients and regulatory action," says Dr. Dahl. "But if you practice good medicine, meaning you develop a treatment plan, conduct periodic evaluation of the response to treatment, and document the results, you won't get in trouble."

So far, the majority of research conducted on the long-term success of opioid therapy has been limited to cancer pain. However, as the role of opioids in the treatment of non-cancer pain gains acceptance, pain experts believe there will be a corresponding growth in studies that will bolster what they are seeing firsthand—that many people with chronic pain truly benefit from opioids, achieving a greater level of function and an improved quality of life. "The body of anecdotal evidence [for opioids' benefits] is very large," says Dr. Portenoy. "They are not a panacea, but they're effective."

Did you know... People with diabetes are two to four times more likely than others to have cardiovascular trouble such as a heart condition or stroke.