

Substance Abuse: A Prenatal-to-Grave Public Health Issue

Joseph J. Sweere, DC, DABCO, DACBOH, FICC; Elizabeth Auppl

Deaths from substance use and abuse exceed in number deaths caused by all other diseases. Doctors of chiropractic nationwide have added [substance testing](#) (and education) as a service promoting healthful living or the restoration of health and wellness for patients. Half of all people living in America are affected by substance abuse or by abuse by a loved one. A leading contributor to deaths caused by cancer, stroke and heart disease, substance abuse is no respecter of age, gender, race, social or economic status, level of education, station in life, geographic location, or faith system.

The crisis of substance use and abuse cannot be ignored; to do so enables America's prenatal-to-grave, major public health problem to flourish. As clinicians, business owners, educators, parents and caring people, we can make a big difference.

Misuse of Prescription Meds

Twenty percent of the population misuse prescription narcotic painkillers, sedatives and tranquilizers, and stimulants for the sake of altering consciousness. From 1998 to 2008, the "portion of all substance treatment admissions of those age 12 and older involving abuse of prescription pain relievers (alone) rose by over 400 percent" according to the Substance Abuse and Mental Health Safety Administration (SAMHSA). Widely marketed to consumers and reaping \$289 billion in annual sales for the pharmaceutical industry, the third most profitable industry in America, prescription med misuse is rapidly becoming our fastest growing drug problem.

The Two-Faced Tobacco Industry

The tobacco industry shamelessly knows that every day, even as people die from [tobacco use](#), others (especially those ages 12-25) will take up the habit. In attempts to project a positive industry image, the tobacco industry especially targets young women. While donating funds to women's organizations, industry ads portray the sleek and empowered woman as one smoking a "slim" cigarette or one carrying a woman's name. In 50 years of battling lawsuits, the industry continues to win 60 percent of cases in spite of its own documented, written admissions that tobacco is a narcotic and carcinogen that kills. Profits somehow exceed the industry's enormous legal fees.

Alcohol: Set Age Limits?

Alcoholism is a serious disease leading to life-threatening health conditions as heart disease, a suppressed immune system, mental disorders, cirrhosis and other diseases. But problems begin even before birth for too many. Alcohol use subjects 40,000 newborns to alcohol damage each year in America. Fetal alcohol spectrum disorders (FASD) cause physical, mental, behavioral and/or learning disabilities resultant of gestational exposure. [Fetal alcohol syndrome](#) (FAS) causes facial abnormalities, low birth weight, small skull at birth, poor eye-hand coordination, tremors, impaired motor skills and structural defects, affecting up to two in every 1,000 newborns. FAS outranks

autism and Down syndrome in terms of prevalence.²

Addicted mothers often use many different drugs. Every year 320,000 babies born in the U.S. are exposed to illicit drugs, alcohol, nicotine and sedatives before birth, all precursors to childhood developmental disorders. Respiratory problems, resuscitation, neonatal stroke, and drug withdrawal are the first challenges for newborns. A legal age limit law affords zero protection to these innocent babes.

Problems Enough for All Ages

Thirteen-year-olds are three times more likely to know how to acquire marijuana than are 12-year-olds. By the eighth grade, over half have already consumed alcohol and 41 percent have smoked tobacco cigarettes. Among those ages 12 and older, abuse of prescription pain medications, most often found at home, continues to rise.

Inhalants are products such as aerosol paint, glues, computer dusters, cleaners, etc., that can be inhaled or "huffed." Chemicals, gases, solvents and nitrites in these products cause a relatively short-term high. Primary users are 12- to 17-year-olds. More eighth-grade students have "huffed" than have tried an illicit drug.³

Products abused by inhaling are inexpensive and easily explained when found in possession. Harmful effects from use may be reversible or irreversible. Hearing loss, liver or kidney damage, oxygen-depleted blood, and the risk for contracting or spreading infectious diseases (such as HIV/AIDS and hepatitis) are all associated with the misuse of nitrites.

Binge drinking as defined by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) is a pattern of drinking five or more alcoholic drinks for men, and four or more alcoholic drinks for women on a single occasion (generally within two hours) that brings the blood alcohol concentration (BAC) level to 0.08 percent or higher. Two in five college students binge drink at least once in a two-week period. Sixty percent ages 18-20 drink. Each year in America, about 1,700 college-age students die in alcohol-related crashes; and nearly 700,000 college students will be assaulted this year by another student under the influence.

Education in a child's earliest years is important for deterring use. Additionally, education coinciding with a treatment program effectively helps students decide to not use at all, and assists users in moving away from habits and addiction. Early-age substance use can suggest problems or dependency later in life. Some schools have policies for random testing for substances, effective because it carries an element of surprise. History shows that testing and education are a good marriage; neither is intended as a stand-alone solution.

The age group 18-25 engages in problem or heavy drinking and the use of drugs (with especially high use of cocaine) and tobacco products more than any other age group.⁴ Many drastically decrease or eliminate use upon assuming marital and/or parental roles while others continue abusing or become addicted.

Among baby-boomer and Generation X cohorts (ages 30-64), the probability of sustained alcohol abuse remains high. For example, 4.7 percent of those ages 50 and older have used illicit drugs in the past year, with marijuana being the most used among ages 50 to 59; in this group, females often used marijuana in conjunction with the misuse of prescription meds. Older users tend toward nonmedical use of prescription drugs.⁵

The Workplace

According to the Department of Labor, 10-20 percent of workers who die on the job test positive for the presence of alcohol or other drugs. The construction, mining, manufacturing and wholesale industries employ more users than other industries, and coincidentally have the highest rates of workplace injuries. Roughly 11 percent of working adults have alcohol problems, costing employers 500 million lost work days annually. Other losses occur as the result of impaired continuity of service, diminished co-worker morale and productivity, and loss of trade secrets and institutional knowledge and information.⁶

Why Your Role in Assessing and Preventing Substance Abuse Matters In America:

- One in four children is exposed to alcohol or drug problems within the family.
- The workplace has become the primary place to buy and sell illicit drugs.
- Fetal alcohol syndrome (FAS) has become the number-one cause of mental retardation.
- 8.3 percent of the U.S. population ages 12 or older (21.8 million people) currently use illicit drugs.
- The misuse of prescription drugs is considered "a serious and growing public health problem" by the National Institute on Drug Abuse.
- Each day, 3,600 minors will initiate tobacco use; one in three will become addicted.
- 70 percent of illicit drug users are employed; 80 percent will steal from the workplace.
- North America has become the largest regional cocaine market and has close to 40 percent of the global cocaine-using population.¹

Employees abusing substances while at work or using heavily off the job exhibit job-withdrawal behaviors such as spending work time on leisure pursuits, abusing breaks, dismissing early, having unjustified tardiness and absences, and/or sleeping at work. Users also may have difficulty getting along with co-workers.

Many large and mid-sized companies have substance testing policies. It is the smaller business that may not test (and thus attract users). Employers can dramatically counter substance use and abuse by having testing programs, offering employee assistance programs with help for substance abuse and mental illnesses (which often co-occur), and implementing workplace wellness programs.

Compromised Road Safety

The National Highway Traffic Safety Administration's (NHTSA) 2007 National Roadside Survey found that 16 percent in a random sampling of weekend night-time drivers tested positive for illegal, prescription and/or over-the-counter medications. Granted, the presence of drugs in the body does not assure impairment, but the random sampling raises concern about [roadway safety](#).

Another study of vehicular accidents revealed that 40 to 80 percent of motor vehicle drivers testing positive for illicit drugs were also found to be under the influence of alcohol to the point of intoxication.⁷

Help Fight Substance Use and Abuse

America has a problem with both simple and sophisticated solutions. Parents, educators and faith-based leaders can educate children and youth. Employers can implement substance testing, as well as education, treatment, and wellness options. Government can fund supportive measures and partner with agencies to disrupt drug trafficking within America. For you and I, it might be assisting one person to seek help; intervention and treatment need not wait until a person "bottoms out."

Doctor, you can help by adding substance testing services to your practice. Doctors, chiropractic assistants and other clinical staff, and chiropractic students can become equally trained, qualified and officially recognized as testing technicians.

Additionally, using recognized, effective brief screening interview intervention tools in your practice can help your patients to seek out help early on. Commonly used instruments (minimal and online training may be required for professional use of these tools) include:

- CAGE (an acronym based on key words in this alcohol screening interview)
- AUDIT (a 10-question interview to help assess alcohol problems)
- TWEAK (a brief screening instrument for alcohol use)
- SBI or SBIRT (a brief interview screening process regarding alcohol and drug use, including a referral to treatment)
- DAST (a 20-question self-assessment to review problematic drug and alcohol use)

In closing, my hope is to ever increase understanding of the scope and gravity of the substance abuse problem in America. Chiropractic is rapidly stepping to the forefront of health care, providing much-needed prevention and intervention services to workplaces and other institutions. Please join me in making a difference.

References

1. United Nations Office on Drugs and Crime. *World Drug Report 2010*. United Nations Publication, Sales No. E.10.XI.13.
2. National Council on Family Relations, *NCFR Fact Sheet 04*.
3. Institute for Social Research. *Monitoring the Future, 2008 (study results)*. Ann Arbor, MI: University of Michigan, 2008. www.monitoringthefuture.org.
4. *Substance Abuse: The Nation's Number One Health Problem*. Schneider Institute for health Policy at Brandeis University. Commissioned by the Robert Wood Johnson Foundation, 2001.
5. *The NSDUH Report: Illicit Drug Use Among Older Adults*. Substance Abuse and Mental Health Services Administration, Office of Applied Studies; December 2009. Rockville, MD.
6. Branham FL. *Six Truths About Employee Turnover*. NY: American Management Association. <http://nichebenefits.com/library/sixtruths.pdf>.
7. Lowenstein SR, Koziol-McLain J. Drugs and traffic crashes responsibility: a study of injured motorists in Colorado. *J of Trauma*, 2001;50(2):313-320.

AUGUST 2011