



CHEMICAL HEALTH TREND CORNER:

"Brain-boosting stimulants aren't a smart choice" Our high achievers are now seeking stimulants.

Student's Prescription Drug abuse has Competition with Brain Boosting Stimulants

Carmen Morrow

Chemical Health Specialist District 423

There has been a shift in what type of student is abusing prescription and over the counter stimulants. Welcome to the students who are high achievers and want to gain an advantage on their competition. Movies like "Limitless" and "Lucy" have appeared to add an interest in the power of smart drugs.

In our society today, there appears to be a pill for almost everything. Adolescents and adults want a quick fix. A pill that will make us feel good, take away physical pain, emotional pain, numb our feelings, escape from the worlds pressures, and now even boost brain power.

According to the National Institute of Drug Abuse (NIDA), "Prescription drug abuse is a serious global problem that has more than quadrupled since the 1999." The NIDA states that when it comes to prescription drug abuse we often think of painkillers or opiates. While this statement is true that these are the most commonly abused prescription drugs causing serious addiction, we often forget about the stimulants. Usher in an age

where we want to be alert, have extra energy, and out preform others around us. A world where academic success and long hours help you achieve goals: goals that will help you receive financial rewards or recognition.

An interesting fact according to Tom Ashbook from On Point is that "The United States has four percent of the world's population, and produces 88 percent of the world's legal stimulant drugs." Commonly used stimulants are; caffeine, energy drinks, ADHD medication; Adderall, Ritalin and other brain enhancer pills like Addium and Modafuni. Most of these are easy to obtain or available if you ask the right people. Students can borrow from a friend, find a dealer or in some cases, order the drug online. Each drug has its own chemical characteristics and side effects which are unique to each user. The uncertainties of these mind-body reactions are frightening as they can cause serious health issues.

In the last few years, there has been a shift in what type of individuals use these stimulants and the reasons behind the use. Many would think of these students as the "good kid" or "high achieving." However, the pressure to succeed at academics, ACT scores, or to be alert for online gaming sessions often causes our students to look for Adderall, Ritalin or a similar stimulant to keep them going for both academics and entertainment.

The NIDA reports that "The drug Ritalin and Adderall, which is normally prescribed for students with ADD (Attention Deficit Disorder), is now often taken by college students wanting an edge on improving their focus, memory and mental energy. For those without the ADHD disorder, the drugs can be dangerous and have serious side effects. Their brains are still developing and taking



stimulants can be dangerous to our brain functions, mental health and body. Insomnia is not a benefit but a side effect. Our brain needs adequate sleep to repair and rebuild, brain cells, what most students don't realize is that addiction occurs with stimulants too. They are highly addictive and regular use leads to tolerance; which means that, students need to take more to get the same results. These ADHD drugs are legal only if you have a doctor's prescription. Obtaining these drugs illegally can have some serious consequences." Studies have repeatedly shown that smart drugs don't actually boost your intelligence but they're pretty good at making you *think* that you're performing better.

You have only one brain. You can artificially stimulate it for perceived short-term benefits or you can nourish and protect it so that it stays sharp for a lifetime. A better choice would be for students to start the day with a moderate amount of their favorite brain-boosting beverage like coffee, tea, hot chocolate or a cappuccino and a breathing and mindfulness session for focus and energy. Students may want to choose these temporary mind-altering short cuts but they need adults to teach and model healthy life coping alternatives.

Mistakes Parents Make That Push Adult Children Away

Our children will always be our children, but once they turn 18 or leave home, they also are adults with lives increasingly separate from our own. It's a challenge for parents to step back while also staying connected to their grown-up kids. Much of the angst between parents and adult children stems from the tug-of-war over whose life

it is. There often is a disconnect between parents who still want to shape their grown-up kids' future course and the kids who are determined to live their lives their own way.

For loving parents, their grown children's trials and errors, including failed projects and teary breakups, can be anguishing. It can be wrenching to let go of the old parental omnipotence and not be able to fix everything. But when grown kids cope with these ups and downs, they develop into resilient, self-sufficient people with the confidence that comes from standing on their own feet.

Seven "don'ts" to keep in mind when dealing with grown children...

Click below for the list of common mistakes adults do:

[Read more](#)

Five difficult conversations parents need to have with their kids, and how to know when to have them

Kirsten Cornell and Katrina Katsarelis

Talking to our kids is usually an enjoyable experience, but there are some topics that make many parents uneasy. Should you be the one to bring up these topics or wait for your child to approach the subject? Here are some of the most common tough talks as well as tips from the experts to help guide you. [Read more](#)

Researchers Issue Important Correction: Chronic Marijuana Use DOES Lead to Development of Psychosis, Depression, and Asthma

A University of Pittsburgh Medical Center study published in the journal *Psychology of Addictive Behaviors* last September found that chronic marijuana use during adolescence did not lead to depression, anxiety, psychosis, or asthma by mid-life.

The U.K.'s *Independent* was one of many newspapers that celebrated the news, scoffing at the National Health Service help page that warns: "Your risk of developing a psychotic illness is higher if you start using cannabis in your teens."

Now, however, the journal has run a correction. **It turns out that the researchers misinterpreted their data. They checked it again after criticism of their study and found that there was a two-and-one-half-fold increase in psychotic disorders in midlife after chronic marijuana use that began in adolescence.**

Read *Independent* story [here](#). Read SAM account of the correction [here](#).

Teens Who Use Marijuana at Risk of Schizophrenia

In a preclinical study, researchers from Western University in Ontario, Canada, studied the effects of long-term exposure to THC in both adolescent and adult rats.

They found changes in behavior as well as in brain cells in the adolescent rats that were identical to those found in schizophrenia. These changes lasted

into early adulthood long after the initial THC exposure.

The young rats were "socially withdrawn and demonstrated increased anxiety, cognitive disorganization, and abnormal levels of dopamine, all of which are features of schizophrenia," according to the article. The same effects were not seen in the adult rats.

"With the current rise in cannabis use and the increase in THC content, it is critically important to highlight the risk factors associated with exposure to marijuana, particularly during adolescence," the researchers warn.

Read *Medical News Today* story [here](#). Read study abstract in the journal *Cerebral Cortex* [here](#).

Teens, Parents Share E-Cigarette Concerns, Poll Finds



Teens agree with parents that the sale of electronic cigarettes should be tightly controlled, a new U.S. poll finds. "We found

overwhelming public support of state efforts to keep e-cigarettes out of the hands of minors," poll director Dr. Matthew Davis, a professor of pediatrics and internal medicine at the University of Michigan, said in a university news release.

More than 75 percent of teens aged 13 to 18 and parents believe e-cigarette use should be restricted in public areas and that the devices should carry health warnings and be taxed like regular cigarettes, according to the national survey

conducted by C.S. Mott Children's Hospital, part of the Ann Arbor-based university system.

The poll, released Monday, also found that 81 percent of teens and 84 percent of parents think allowing minors to use e-cigarettes will encourage them to use other tobacco products. And more than half of teens and parents think it is easy for minors to buy e-cigarettes, while 71 percent of teens and 64 percent of parents support banning candy- and fruit-flavored e-cigarettes.

"Just as we are seeing declines in smoking of conventional cigarettes, there has been rapid growth in use of electronic cigarettes among youth. Our poll indicates that both parents and teens agree that e-cigarettes pose several concerns," Davis said. E-cigarette use among middle and high school students tripled from 2013 to 2014, according to the U.S. Centers for Disease Control and Prevention.

"Some people may be surprised that teenagers' views are remarkably consistent with what parents think about e-cigarettes," Davis said. "The strong level of agreement between parents and teens suggests that both groups are concerned about the health hazards of e-cigarettes." [Read more](#)

Chemical flavorings found in e-cigarettes linked to lung disease.

Amy Roeder, Harvard Chan School Communications



Diacetyl, a flavoring chemical linked to cases of severe respiratory disease, was found in more than 75 percent of

flavored electronic cigarettes and refill liquids tested by researchers at Harvard T.H. Chan School of Public Health.

Two other related, potentially harmful compounds were also found in many of the tested flavors, which included varieties with potential appeal to young people such as cotton candy, "Fruit Squirts," and cupcake.

The Occupational Safety and Health Administration and the flavoring industry have warned workers about diacetyl because of the association between inhaling the chemical and the debilitating respiratory disease bronchiolitis obliterans, colloquially known as "popcorn lung" because it first appeared in workers who inhaled artificial butter flavor in microwave popcorn processing facilities.

"Recognition of the hazards associated with inhaling flavoring chemicals started with 'popcorn lung' over a decade ago. However, diacetyl and other related flavoring chemicals are used in many other flavors beyond butter-flavored popcorn, including fruit flavors, alcohol flavors, and, we learned in our study, candy-flavored e-cigarettes," said lead author Joseph Allen, assistant professor of exposure assessment sciences.

"Since most of the health concerns about e-cigarettes have focused on nicotine, there is still much we do not know about e-cigarettes," said David Christiani, Elkan Blout Professor of Environmental Genetics. [Read more](#)