

# HEALTHY OUTCOMES Newsletter

FALL 2011



## Special points of interest:

- Marijuana affects the adolescent brain differently than the adult brain
- Alcohol mixed with energy drinks doubles the risk of injuries compared to alcohol consumption alone
- Teens who smoke cigarettes are more likely to abuse illegal drugs

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**"TODAY'S HEALTHY CHOICES ARE TOMORROW'S HEALTHY OUTCOMES"**

## Monitoring Our Future

Since 1975 the "Monitoring The Future" (MTF) survey has measured drug, alcohol, and cigarette use of adolescents nationwide. MTF is one of three surveys sponsored by the U.S Department of Health and Human Services that provide government agencies with data on youth substance use trends. 46,348 students from public and private schools in the 8th, 10th, and 12th grades participated in this year's survey.

The results released in December 2010 show significant increases in use of Marijuana, Ecstasy and cigar smoking, decreases in cigarette smoking and binge drinking while prescription drug abuse remained stable but very high. 8<sup>th</sup> graders showed the greatest increase in illicit drug use. For 12th-

graders, declines in cigarette use and increases in marijuana use put marijuana ahead of cigarette smoking. "Mixed messages about drug legalization, particularly marijuana, may be to blame," said Gil Kerlikowske, director of the White House Office of National Drug Control Policy. "Such messages certainly don't help parents who are trying to prevent kids from using drugs."

But there is good news because studies show that parenting styles have a strong impact on youth substance abuse. Researchers at Brigham Young University have found that teenagers who grow up with parents who are either too strict or too permissive tend to binge drink more than their peers. The study was published in the *Journal of Studies on*

### *Alcohol and Drugs.*

The parenting style that led to the lowest levels of problem drinking struck a balance between both styles: accountability and support. Parents who monitor their children, set and enforce rules but are also flexible; show great interest in their children's ideas and their daily activities; make expectations clear but support their children's needs, had the lowest rate of heavy underage drinking.



## Teen Cannabis Use and the Brain

The California ballot initiative that would have legalized recreational use of marijuana was defeated on Election Day 2010. California voters chose not to legalize less than one ounce of marijuana for those age 21 and older.

Marijuana-related ballot questions in other states were also defeated.

Perhaps this is a good time for parents to dispel some myths and to discuss the science of marijuana with their teens.

The effect of daily cannabis use on the adolescent teenage brain is worse than originally thought and the long-term effects appear to be irreversible.

A recent study

published in *Neurobiology of Disease*, suggests that daily cannabis consumption can lead to depression and anxiety. Led by Dr. Gabriella Gobbi, a psychiatric

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*Marijuana being rolled on a "blunt" wrapper or cigar wrapping paper. These blunts are sold in many scents such as cherry-vanilla, blueberry, sour apple, watermelon or grape in most local stores that sell cigarettes.*





**“People who consume alcohol mixed with energy drinks are 4 times more likely to drive drunk than those drinking alcohol alone.”**



## Alcohol and Energy Drinks Don't Mix

It is important for young people to know that their bodies and minds are not yet fully developed, and that ingesting any type of alcohol or drug can impair full brain development. Exposure to alcohol at an early age increases the chance that a young person will have alcohol-related problems by the time they are 21 years old and these problems continue into adulthood.

Parents who can postpone the initiation of alcohol drinking for as long as possible will decrease the risk that their children will have life-long problems with alcohol.

Recently the Food and Drug Administration (FDA) banned alcohol-energy

drinks from being marketed after it was proven that they increase alcohol-related accidents and injuries. The drinks' brand names include Four Loko, Joose, Moonshot and Core High Gravity. Four Loko, one of the most popular of these drinks, came in fruit flavors and brightly colored cans. It is 12 percent alcohol, meaning that one 23.5-ounce can is comparable to drinking four or five beers, plus a high dose of added caffeine, taurine and guarana for a stimulating effect.

Research suggests that when caffeine is mixed with alcohol it overcomes the sedating effects of alcohol and people perceive that they are less intoxicated than they really are. This leads people

to drink more or make bad decisions about whether they are safe to drive.

According to recent studies, people who consume alcohol mixed with energy drinks are:

- 4 times more likely to leave a bar drunk
- 4 times more likely to drive drunk than those drinking alcohol alone
- 2 times more likely to have injuries that lead them to the emergency room
- 2 times more likely to be involved in a sexual assault

Talk to teens about underage drinking and never mixing alcohol with energy drinks at any age.

## It Is Not “Just a Phase”

Underage drinking is so common that most parents feel it is a normal part of growing up. Our parents probably thought it was a “rite of passage” for teenagers to drink alcohol. Our generation, now that we are parents, often feels the same way.

But the more we learn about the affect of alcohol on the adolescent brain, the more we need to realize that alcohol impairs normal brain development. Underage drinking no longer needs to be accepted as “just a phase” by parents.

A recent study at Indiana University suggests that heavy drinking during adolescence strongly predicts alcohol dependency in early adulthood.

“The key finding

was that the more drinking-related problems experienced by an adolescent at age 18, the greater the likelihood that adolescent would be diagnosed with alcoholism seven years later, at age 25,” said Richard R. Rose of Indiana University.

Our brain goes through massive developmental changes during adolescence; more than during ages 5 through 11. This explains why the constantly changing, adolescent brain is more susceptible to addiction of any substance including alcohol, nicotine and drugs than the adult brain.

What can parents do?

**Talk to your children about your expectations**

**surrounding alcohol and drugs.** Studies prove that parents who make their disapproval of alcohol abuse known to their children have a lower rate of underage drinking by their children.

**Set rules and enforce them.** Studies show that the more often parents set clear rules and enforce those rules, they lower the risk that their children will abuse drugs and alcohol.

**Do not accept underage drinking as a phase.** Experts recommend that parents have their children screened early for alcohol problems by their pediatrician as soon as signs of underage drinking are recognized. Early intervention can prevent academic issues and dependency.

## Why Should We Care About Underage Tobacco Use?

In May of 2010, eight out of thirty-three tobacco vendors in Burlington were caught selling cigarettes to minors. A compliance check was conducted by the Massachusetts Tobacco Cessation and Prevention Program to obtain data for a required annual SYNAR report to the federal government. Eight of our merchants sold cigarettes to trained underage buyers sent into stores for the purpose of testing them under federal regulation. Eight of our vendors failed.

So what is the big deal? What does this really mean to us as a community?

Cigarette smoking during adolescence has been proven to increase the risk of drug abuse and underage drinking. Because nicotine significantly affects the structural and chemical changes in the developing brains of adolescents, smoking



cigarettes makes teens more vulnerable to alcohol and drug addiction, according to research by The National Center on Addiction and Substance Abuse (CASA) at Columbia University.

Smoking cigarettes increases nicotine receptors, especially in adolescents. This provides more receptors for alcohol to act upon which increases the urge to drink. Nicotine increases dopamine levels in the brain which increases a propensity for alcohol and the amount of alcohol consumed. Comparing adolescents, age 12-17 who don't smoke, to teens who do, the CASA study found:

- Five times more likely to drink.
- 13 times more likely to use marijuana.

Comparing those teens who started to smoke before age 12 to non-smokers, the study found:

- More than three times more likely to binge drink.
- Nearly 15 times more likely to smoke marijuana.
- Nearly seven times more likely to use heroin and cocaine.

Massachusetts (and all other states) will

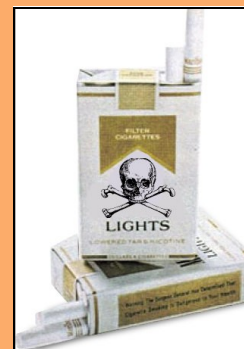
lose 10% of their Substance Abuse Prevention and Treatment (SAPT) grant money if we do not maintain at least 80% compliance of SYNAR tobacco regulations. That means Massachusetts would lose a total of \$3.5 million in prevention and treatment funding if we have more than 20% of vendors selling cigarettes to minors. Here in Burlington, 8 out of 33 merchants translates to only 76% compliance. 24% of our merchants were caught in May.

If we represent the average Massachusetts community, we are in big trouble. A loss of three and a half million dollars of federal funding that pays for community prevention programs, merchant education, drug treatment and other necessary programs to reduce substance abuse would certainly affect all of us.

It is easy to see why every community should care about making it difficult for adolescents to buy cigarettes. Decreasing teen access to tobacco will increase protection against youth substance abuse. That means healthier children and young people.



**“Because nicotine significantly affects the structural and chemical changes in the developing brains of adolescents, smoking cigarettes makes teens more vulnerable to alcohol and drug addiction, “**



**HEALTHY OUTCOMES**

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*“The United States simply can’t afford to let millions of kids struggle through their academic and professional lives hindered by substance abuse. Parents need to play a more active role in protecting their families, trust their instincts and take immediate action as soon as they sense a problem.”*

*-Steve Pasierb,  
CEO of the Partnership for a Drug-Free America*

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## Teen Cannabis Use and the Brain (continued from page 1)

researcher from the Research Institute of the McGill University Health Centre, researchers found that marijuana has an impact on serotonin and norepinephrine. These brain chemicals help control mood and anxiety.

Her research team observed that rats exposed to cannabis had decreased levels of serotonin, which affects mood; and higher levels of norepinephrine, which makes one more susceptible long-term to stress.

"These permanent changes in the brain are also linked to certain mental illnesses, like schizophrenia," Gobbi said, "And we showed that even if we stopped the cannabis use at the end of adolescence, the changes were still detectable in adulthood."

Serotonin and norepinephrine systems are still in development during adolescence

and cannabis interferes with their development. It is well known from past research that the adolescent brain is more susceptible than the adult brain to addiction of any drug, including alcohol and nicotine from cigarettes.

*Although addiction to drugs and alcohol can occur at any age, the risk multiplies many times if alcohol consumption or drug use begins in adolescence. Talk to your children and teenagers about the irreversible damage that drugs and alcohol can have on their brain and their future.*

