# **Parenting for Prevention**

Student Assistance Services Corp., 660 White Plains Road, Tarrytown, New York, 10591, April, 2018

# Healthy Teen Day

In 1971 a group of high school students in Marin County, California decided to designate April 20 as a day to promote the use of marijuana. They gathered at 4:20 to use marijuana and celebrate what they considered the benefits of using this drug. Since then, April 20 has remained a day for some people to promote the use of this drug. The Westchester Coalition for Drug and Alcohol Free Youth has been successfully working for several years to reclaim the day as "Healthy Teen Day." However, due to a conflict, we will hold our event promoting healthy teens on April 18.

This year, there will be an opportunity to tour inflatable lungs; learn more about the dangers of vaping, "e-juice," marijuana, and other substances; and attend a rally and news conference starting at 4:00 at the Maria Fareri Children's Hospital, 100 Woods Road in Valhalla.

We hope that adults and students from communities throughout Westchester will attend this important event to promote healthy living and raise awareness about e-cigarettes, vaping, and marijuana and their negative impact on adolescents. The most recent research is showing the previously unknown dangers of vaping.

Editor: Patricia M. Warble, CMSW, CPP

## **April is Alcohol Awareness Month**

According to the United States Substance Abuse and Mental Health Services Administration, more than 4,750 American children who are aged 15 and younger take their first full drink of this drug every day. One of the problem is that teens who start drinking before age 15 are five times more likely to become alcoholics or abuse alcohol than are people who wait until adulthood for their first drink. Another problem for teens who drink alcohol is that they are more likely than adults to consume too much alcohol over a short period of time. This is known as binge drinking.

In addition, alcohol use by teens can cause unintentional injuries such as falls, crashes, burns, water accidents, etc.; suicide; aggression and victimization; infections and pregnancies from unplanned unprotected sex; and academic and social problems (Brown, et. Al 2008).

### Alcohol's Impact on the Immature Brain

An article published in the 2015 issue of *Pediatrics*, discusses research that shows the risks involved in the use of alcohol by young people. Lorena Squeglia, the author of the article is a pediatrician at Florida International University and Nicklaus Children's Hospital says "We used to think that brain development was done by the time you're a teenager," Squeglia says. "Now we know that's not true." The brain keeps developing into a person's 20s and even early 30s, she explains.

In the new study, scientists gave 10 doses of alcohol to adolescent rats over 16 days. The amounts led to blood-alcohol levels that might model a binge-drinking teen. After these exposures, the rats never tasted alcohol again. Later, in adulthood, the scientists attached electrical equipment to a part of each animal's brain. Called the *hippocampus*, this region controls memory and learning.



#### Parenting for Prevention

Nerve cells in that part of the brain communicated abnormally, the scientists found. The cells also looked more immature than usual. Branches coming off of nerve cells should look like short mushrooms. Instead, here they looked long and thin. Again, this damage showed up in the part of the brain linked with learning and memory.

"For humans, this means binge drinking during adolescence may permanently change brain functioning," says the National Institute on Alcohol Abuse and Alcoholism's (NIAAA) Vivian Faden. What's more, she adds, these changes "appear to be irreversible."

Teens who start drinking before age 15 also are five times more likely to become alcoholics or abuse alcohol than people who wait until adulthood for their first drink.

Mary-Louise Risher of Duke University in Durham, N.C., led that new rodent study. Her team published it in the June, 2015 issue of *Alcoholism: Clinical and Experimental Research*.

An article in the *Clinical EEG and Neuroscience Journal*, "*The Influence of Substance Use on Adolescent Brain Development*" *by* L.M. Squeglia and colleagues found that heavy dinking in adolescence may result in longlasting and structural changes in the brain.

Other research has shown that teens who drink heavily lose more white matter in their brain over time than do teens who don't drink, NIAAA's Faden says. White matter acts a bit like the brain's superhighway system. It connects areas of the brain's so-called gray matter, which processes information. The white matter allows messages to shuttle quickly, even over relatively long distances in the brain. Alcohol also can hurt a portion of gray matter in a region known as the *prefrontal cortex*, Faden says. This area is used for attention, concentration, self-control and making decisions.

#### When it comes to the developing adolescent brain, "There is no known safe level of binge drinking."

Those kinds of skills work together to create what brain scientists refer to as executive function. Poor executive function makes it harder for individuals to control their behavior. And it makes it more difficult for them to stop doing something that they know could hurt them. A person with poor executive function may be less likely to turn down the chance to drink alcohol or may get behind the wheel of a car when it would be dangerous to drive.

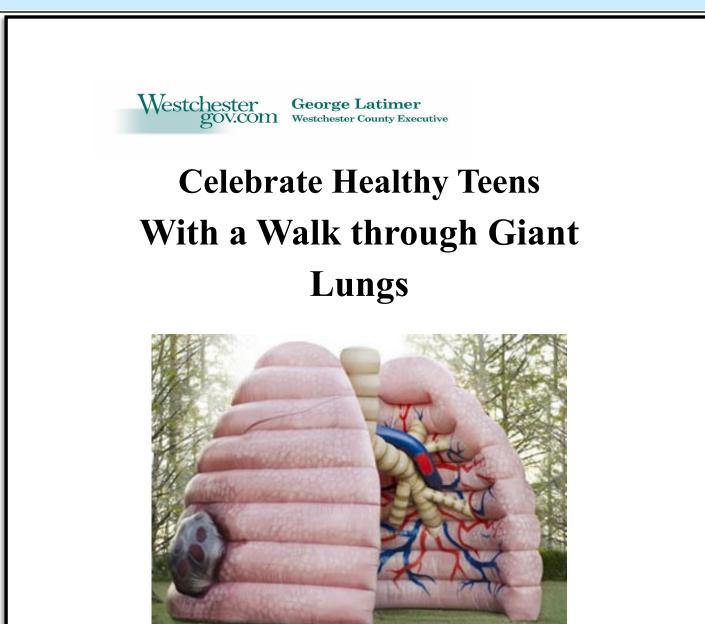
Drinking alcohol makes a teen less likely to turn down alcohol, and so the risk of binging grows. This drinking can create a cycle of unhealthy or inappropriate behavior. Worst of all, this cycle may lead to alcoholism in some teens, Faden notes. The bottom line, she says: When it comes to the developing adolescent brain, "There is no known safe level of binge drinking."

More recent research had the same outcomes. A study by Pfefferbaum et al in the May, 2015 issue of the *American Journal of Psychiatry* found that moderate and heavy teenage drinkers had faster gray-matter decreases and slower white-matter increases than nondrinkers at 2-year follow-up, and increasing the amount of alcohol that was consumed worsened outcomes progressively. Among the heavy drinkers, family alcoholism history was associated with steeper slopes.

A study in the October, 2017 issue of *Alcoholism: Clinical and Experimental Research* found that "Earlier ages in adolescents and young adults of first alcohol use predict worse neuropsychological performance a few years later."

"Among adolescents or young adults not meeting the criteria for an alcohol use disorder, the quantity of recent alcohol use predicts subtle changes in the neuropsychological functioning. To learn how age of alcohol use onset might affect neuropsychological functioning, researchers conducted a longitudinal study on the effects of age at the first alcohol use and at onset of weekly drinking on later performance on multiple neuropsychological tests in 295 adolescents without baseline histories of drinking (mean age, 14).

While drinking alcohol alone can be harmful, mixing alcohol with marijuana, tranquilizers, sedatives, and opioids, as well as cold and allergy medicines can add to the danger. Alcohol and any of these drugs can have a synergistic or additive effect which could result in 1 + 1 = 4. Alcohol can also reduce or negate the effects of other medications. Therefore teens taking medicine or who have acute or chronic medical conditions need to know the added dangers of alcohol use.



Wednesday, April 18 from 2 p.m. – 6 p.m. RALLY AND NEWS CONFERENCE STARTING AT 4:00 p.m. Westchester Medical Center, North End of the Oval, Valhalla, NY

Join with coalitions and student leaders throughout Westchester at this annual event to celebrate the majority of young people who are making the healthy choice to remain marijuana free and who are vape-free

# Spring Clean Your Medicine Cabinet



Student Assistance Services 660 White Plains Road Tarrytown, New York 10591

## Up Coming Events

April 177:00-9:00pmOpioid Use and Abuse:A National EpidemicPace UniversityButcher Suite,Kessel Student CenterContact: 914-773-36683

# April 182:00-4:30pmCelebrate Healthy Teens

Rally and News Conference at 4:00pm Westchester Medical Center, North End of the Oval, Valhalla, NY Contact: 332-1300

April 257:00pmReefer Sanity-A SmartApproach to MarijuanaKevin Sabet, PhD.Cortlandt Town HallContact: 914-261-6365

May 1211am-6pmThe White Plains Youth Bureau/<br/>White Plains Cares CoalitionThe 4th White Plains ComicfestThe Galleria, White Plains.Contact: 914-422-6489 ext. 6704