

“Just Say No” isn’t enough—Talk to your youth about

Alcohol and the teen brain

teens
and
science

Teens are often fascinated with the human body, including the brain. As a parent, teacher, or other caring adult, you should use that fascination to talk with youth about how alcohol can harm young brains.

The brain is made up of more than 100 billion neurons. Each neuron makes tens of thousands of connections with other neurons. Alcohol can damage or even kill neurons. This can change the way the brain is developing. Studies show that alcohol can cause teens to:

- **Make bad decisions.** The prefrontal cortex, which is involved in planning and decision-making, does not completely mature until after the teen years. Using alcohol can harm a teen's ability to reason and weigh options instead of just doing something because it is fun or feels good.
- **Develop a tolerance for alcohol and drink more over time.** When adolescents drink on multiple occasions, their brains develop tolerance to alcohol. That means it takes more alcohol to obtain the same effects as before. This encourages higher levels of use, potentially leading to alcohol abuse and even dependence. Youth who start drinking before age 15 are 4 times more likely to end up having an alcohol problem than those who wait until age 21. Binge drinking (having 5 or more drinks in a row) is particularly risky.
- **Take risks they usually would not take.** The prefrontal cortex and the ventral striatum are important parts of the brain's reward system, and are important in helping teens control impulsive behavior. These areas are still maturing during the teen years. Alcohol can affect the connections between the areas, making teens more likely to do impulsive things they later may regret – like drinking and driving or having sex.
- **Harm their memories.** The hippocampus, or the area in the brain that stores memory, is still maturing during adolescence. Drinking even small amounts of alcohol can make teens more likely to forget things they’ve learned or things they did while drinking.
- **Cause problems with medications.** Medication for attention deficit disorder, bipolar disorder or other problems may react badly with alcohol and cause any number of problems for the user.

13.6% of
Arkansas
teens report
binge
drinking

The average
age of first
alcohol use
in AR is 12.6
years old

Sources: American Association for the Advancement of Science; Office of the US Surgeon General