



ROANOKE AREA YOUTH
SUBSTANCE ABUSE COALITION

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Alcohol and Youth Brain Development

The average age now reported for the initiation of drinking alcohol is twelve years old. Most youth do not report excessive drinking on a regular basis, but nearly 20% of 12 to 20 year olds report binge drinking (having 4 to 5 drinks in a row). We know that there are many risk factors associated with underage drinking such as academic and social problems, homicides and suicides, depression, and risky sexual behavior. Also, it is the leading contributor to injury death, and the main cause of death for youth under the age of 21. But, what are the effects of alcohol on brain development?

The American Medical Association reports that alcohol can seriously damage the long and short term growth process of the brain. Youth who drink can have a significant reduction in learning and memory, and teen alcohol users are most susceptible to damaging two key brain areas that are undergoing dramatic changes in adolescence:

The hippocampus handles many types of memory and learning, and suffers the most from alcohol-related brain damage in teens.

The prefrontal area (behind the forehead) undergoes the most change during adolescence. Researchers found that adolescent drinking could cause severe changes in this area as well as others which play an important role in forming adult personality and behavior. The prefrontal area is often called the CEO of the brain.

Researchers compared the brains of 14-21 year-olds who drank alcohol to those who didn't. Teens that drank had smaller hippocampi, and they also had damage to part of the prefrontal area. The AMA found that teens who used alcohol scored worse on vocabulary, visual-spatial (the ability to think in pictures and images), and memory tests.

The research suggests that there are lasting implications into adulthood for frequent drinkers. Alcohol inhibits systems important to storing new information as long-term memories and makes it difficult to recall what was just learned.

The good news is that parents can help their teens make healthy choices when it comes to underage drinking. Take time to talk to your child about his/her daily activities and ideas. Discuss your expectations, and create opportunities that reinforce healthy and safe decision making. Tell them about the dangers of underage drinking.

Parents, talk to your teens... they will listen!

Promoting a Safe and Drug Free Roanoke Valley!