

POSSIBLE TITLE:

Thinking healthy: Regular alcohol use can damage young minds, but parents biggest influence in keeping kids from drinking

Your son or daughter is starting high school. They're smart and want to make their own decisions. And they know what you expect of them. So, it's time to loosen the parental reins, right? Not yet, according to new studies on the adolescent brain.

Thanks to magnetic resonance imaging, we know that tremendous brain development occurs during the teen years, and that the brain is not fully developed until about age 25. We also know the part of the brain that controls planning, delayed gratification and judgment develops last. That's why kids take risks and often don't think things through before jumping in.

It's also why regular alcohol use during adolescence is so dangerous: Drinking lowers inhibitions for risky behavior. And unfortunately, too many Oregon youngsters drink. In the past month, about one in three 8th-graders consumed alcohol. About one in four 11th-graders binged, consuming five or more drinks within a couple hours. Alcohol is the biggest drug problem among youth. And it's not just about safety; there are serious health consequences as well.

Important work is being done on this issue at Oregon Health & Science University's Portland Alcohol Research Center. Two of the center's experts, Dr. Judy Cameron and Dr. Mark Rutledge-Gorman, discuss the latest research. We also offer tips on helping you talk about alcohol with your child.

Q: Excessive drinking by youth has several dangerous short-term consequences, including car crashes. What is research telling us about the longer-term health effects?

A: Alcohol impacts nearly the entire body. So it's no surprise that long-term alcohol use can lead to problems from head to toe.

We all want our kids to make good decisions and grow into well-rounded, responsible adults. But research shows that a few years of heavy drinking can hamper them in school and in learning to interact and build relationships with others. Regular alcohol use can lower overall brain function and learning ability. It also can undermine kids' decision-making ability and impede the development of social skills. Beyond that, the younger a person is when they start to drink regularly, the more likely they are to become alcoholics. Young people also tend to become addicted faster than adults.

Overall, alcohol compromises the body's immune system and causes greater susceptibility to diseases. It can fuel the destructiveness of mouth, throat, pancreatic and other cancer. With prolonged alcohol use, the heart enlarges, its muscles weaken and its beat becomes irregular. Alcohol can lead to high blood pressure, weight gain, weakened muscles, liver and kidney failure, and accelerated osteoporosis.

In addition, alcohol affects genders differently. Women tend to suffer alcohol's adverse effects faster. Pound for pound and drink for drink, a woman will develop a higher blood alcohol

level than a man. Women concentrate more alcohol in their internal organs, such as the brain, heart and liver. As a result, women's organs tend to wear out faster, and female alcoholics tend to die sooner than male alcoholics.

Q: What makes adolescent brains especially vulnerable to alcohol's effects?

A: It's simple: adolescent brains are still developing. During this time, the brain is supercharged to take in, store, analyze, and act on new information and experiences. A great strength of the brain at this stage is its receptiveness and malleability. Adolescents are building up a vast reservoir of knowledge, emotional fortitude and skills.

However, this great strength can have a major downside. An adolescent brain exposed to alcohol is more easily damaged than an adult's. Overall brain size may be reduced. Alcohol decreases communication among nerve cells, which is the brain's stock in trade. Hence, the brain and the body do not work as well.

Some youngsters, given all the challenges of growing up, are anxious or suffer from depression. We know through research that these adolescents can be at great risk for alcohol addiction. There are several possible reasons for this, including genetics. For example, a common neural pathway – part of the brain's communication network - may contribute to both alcoholism and mood disorders. Alternatively, anxiety may be the underlying reason some people start drinking, because alcohol can relieve anxiety.

OHSU researchers are studying this issue, searching for common genes that underlie these traits. Identifying these genes should lead to treatments. But more importantly, it will perhaps allow us to develop ways to prevent anxiety and alcoholism in young people.

Q: Kids face many influences – peers, music, what they see on television and in movies. As a parent, how can I help my kids make healthy decisions to avoid alcohol?

A: Don't underestimate your impact. *Kids* say their parents are the most powerful influence on whether they drink. Daily involvement in your child's life is huge. Watch TV with your kids, talk with them about what's happening with their friends and classmates, and take advantage of teachable moments. The statistics about underage drinking are cause for concern. But the fact is, most kids *don't* drink. That message alone is important to convey to youngsters who often want to fit in. The key is to express clear opposition to underage drinking, and establish rules and consequences about it.

To find out more about keeping your children free of alcohol and other drugs, contact the nonprofit Oregon Partnership, a statewide organization that provides substance abuse prevention education and treatment referral, at 503-244-5211, or www.orpartnership.org.