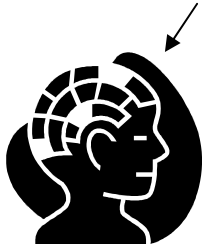


# Alcohol and the Adolescent Brain

The adolescent brain is a work in progress. An important part of the brain – and one of the last areas to fully mature – is the prefrontal cortex.

The prefrontal cortex is responsible for:



- Controlling impulses
- *Inhibiting* inappropriate behavior
- *Initiating* appropriate behavior
- Organizing things
- Forming strategies and planning behavior
- Making decisions
- Setting priorities among tasks and goals
- Providing insight

Adolescence is the transition from childhood (onset of puberty) to adulthood (generally early to mid-20s). Throughout this period, the ability for the brain to plan, control impulses, make good decisions and to ***imagine consequences of action***, is still developing.

## Effects of Underage Alcohol Use on the Adolescent Brain:

Because of the changes occurring in the brain during the teen years, **alcohol affects teenagers and adults differently**. It appears to produce greater impairments in learning and more widespread brain damage in adolescents than in adults.

**Repeated alcohol use** can produce *long-lasting* changes in adolescent behavior and brain functioning. The ability of the brain to think, reason, remember, imagine, or learn might be harmfully changed as a result of repeated alcohol use.

Kids who drink before age 15 are **five times more likely** to develop alcohol dependence than those who begin drinking at age 21.

## Emotional and Psychological Effects:

**Alcohol impairs judgment**. It has been linked strongly to teenage depression and suicide.

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### References:

American Medical Association [www.ama-assn.org/ama/pub/category/print/3557.html](http://www.ama-assn.org/ama/pub/category/print/3557.html)

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Alcohol and the Adolescent Brain. Topics in Alcohol Research. Duke University. <http://www.duke.edu/~amwhite/Adolescence/index.html>

The Medical Impact. (January 2003). Your Teen and Alcohol: Do You Really Know? Maine Office of Substance Abuse.

## The Risky Business of Underage Drinking:

Underage drinking contributes to:

- Risky sexual behavior and unintended pregnancies
- Sexually transmitted infections (STIs/STDs) such as genital herpes and HIV
- Academic failure and dropping out of school
- Criminal behavior – committing rape, assault, robbery, murder and other violent crimes
- Becoming the victim of rape, assault, robbery, murder and other violent crimes

Underage drinking is a factor in nearly half of all teen automobile crashes – the **leading cause of death** among teens.

## What Can Parents and Caring Adults Do?

Teens need to be surrounded by caring parents, adults and institutions that help them learn specific skills and appropriate adult behavior. **Guidance from adults is essential** while the decision-making portion of the brain (prefrontal cortex) is under development.

### Talk with your teen

- Talking with your teen about NOT using alcohol is the **first step** in prevention.
- **Developing open, trusting communication** between you and your child is ESSENTIAL to helping your child avoid alcohol use.

### Monitor your teen

**Before your teenager leaves home** – make sure that you know where your teen is going and with whom, and make sure curfews and rules are understood.

**While your teenager is away** – ask that he/she check in with you periodically.

**After your teenager returns** – ask questions and talk about what happened while he/she was away. Check for any signs or symptoms of alcohol use.

**Always** – talk often with your kids about alcohol. They are always at risk and consistency matters.