Helping adolescents make the most of their changing brains

Aaron M. White, PhD

Duke University Medical Center

<u>aaron.white@duke.edu</u>

JUST THE FACTS

Adolescence

- Adolescence is the transition from childhood (dependence) to adulthood (independence).
- No distinct beginning and end, but roughly 10-20 years of age is a good approximation.
- <u>Normal</u> adolescent behavior consists of changes in sleeping and eating habits, an increase in conflicts with family members, a desire to be with one's friends around the clock, resistance to messages from authority, irritability, risk taking, and proclamations of sheer boredom!
- These changes compel adolescents to explore the deeper end of the gene pool and acquire the skills, competence, and confidence necessary to survive on their own.
- A biological wedge is naturally driven between parents and adolescents to aid the transition from dependence to independence. The closer the family, the harder this process can be.

Adolescent drug use

- More than half of all adolescents will experiment with alcohol (80%) and/or marijuana (50%) by the time they become seniors in high school. Fortunately, most move through this stage of experimentation smoothly with no lingering drug problems.
- Levels of marijuana use have really skyrocketed in the past ten years, though they are still lower than they were in the early-mid 1980s.
- Alcohol misuse is by far the biggest drug problem among our kids. Alcohol kills more young people than all other drugs combined. Where do they get it? From us.

Adolescent brain development: Possibilities and pitfalls

- It is now quite clear that the brain undergoes a tremendous amount of development during the teen years, including a major remodeling of the frontal lobes, which are involved in planning, decision-making, impulse control and language.
- Changes in the frontal lobes and other areas are influenced by experience, which means that the decisions that kids make can have a big impact on how their own brains develop!
- Healthy choices = healthy brains, unhealthy choices = unhealthy brains.
- Because of the changes occurring in the brain during the teen years, alcohol affects teenagers and adults differently – for instance, it appears to produce bigger impairments in learning and more widespread brain damage in adolescents than in adults.
- Repeated alcohol exposure might alter the trajectory, or path, of teen brain development.
- The moldability, or plasticity, of the brain decreases as we enter the early 20s, which means that we might not be able to make up entirely for the poor decisions that we make as teenagers.

How to help teenagers make the most of it

- Embrace the changes in adolescents rather than fight them. Help them find healthy forms of risk taking so that they can build confidence and explore the world in a relatively safe way.
- Talk to them about different drugs and other issues of safety and health be certain they know how you feel about them. Communication between parents and kids on this topic really seems to diminish the odds that they will become substance abusers.

(Please visit www.alcohol-info.com for more information on this topic)