

Juvenile Assessment Center  
of Lee County  
2107 Dr. Martin Luther King Blvd.  
Fort Myers, FL 33901  
(239) 258-3450  
www.swfjac.org

November 2014

# The JAC Perspective



*The Juvenile Assessment Center of Lee County ... assisting youth and their families to seek the treatment and programs they need to lead productive, crime free lives.*

Free drug testing kits for your youth are available at the JAC 24 hours a day.

**Law enforcement should call ahead to**

**258-3461  
or 258-3471**

**when bringing an arrested youth to the JAC or to confirm that a youth is eligible for a civil citation.**



The JAC of Lee County is operated by the Lee County Sheriff's Office in partnership with the Lee County Board of County Commissioners and the Department of Juvenile Justice.

## The Adolescent Brain

“What is going on in their heads?” is a question that parents and anyone who works with teens often wonders. In “Age of Opportunity: Lessons from the New Science of Adolescence,” Laurence Steinberg, Ph.D. gives a research-based “peak under the hood” to the developmental stage of adolescence. Steinberg likens the stage of adolescence to trying to drive a car with a sensitive gas peddle and bad brakes. Starting around puberty there are hormonal changes that trigger developments in a young person’s brain that the author/researcher likens to “starting the engines.” Parts of the brain governing emotions and impulses are more easily aroused. During this time teens become more emotional – their “highs” are higher and their “lows” are lower. They become more determined to seek exciting and intense experiences. During a second phase of adolescent brain development they begin forming a “better braking system” as they develop better skills for decision making, problem



solving, and planning ahead. This stage is not complete until around age 16. However, their self control is still not fine tuned yet. On tests measuring self control, 16 year-olds can perform as well as adults when the circumstances are ideal. They don’t do as well as adults when they are upset, excited, or tired. Stress can interfere with the performance of both adults and adolescents, but it has a greater impact on adolescents’ performance. Between the late teens and early twenties there is a third phase of adolescent brain development in which a young person develops a mature and more dependable braking system. It is during this time that adolescents get better at self regulation. Their ability to control their impulses, think about the long term consequences of their decisions, and ability to resist peer pressure is less easily disrupted by fatigue, stress, or emotional arousal. Steinberg debunks the common notion (Continued page 2)

## Supporting Social and Emotional Skill Development

The capacity for self regulation is one of the most important attributes for a youth to have to be able to thrive during adolescence. This is the capacity to regulate ones feelings, thoughts, and behaviors. The capacity for self regulation contributes as much to health, happiness, and real world success as having intelligence or talent. Developing self regulation is what helps to fine tune “the brakes” in late adolescence (see article above). Self regulation tends to improve in early adolescence compared to childhood, but it can easily be disrupted when an

adolescent is fatigued or stressed. Birth complications, exposure to stress and trauma, poverty, harsh parenting, and early alcohol and drug use can interfere with normal brain development needed for the development of adequate self regulation. However, self regulation can also be fostered. CASEL provides an online toolkit for parents and others involved with youth to help support their social and emotional development at each grade level. To access it go to <https://casel.squarespace.com>.

## The Adolescent Brain (cont.)

that teens engage in risky behaviors because they don't understand the risks and consequences. By age 16 teens are just as good as adults in knowing what is risky and what isn't. Research on delusions of invulnerability find that adolescents are no worse than adults are in thinking that they are invulnerable to risks. According to Steinberg, adolescent risk taking is not totally based on their lack of impulse control. It also involves physical changes that alter areas of the brain that experience pleasure. The most active part of the brain for experiencing pleasure gets bigger between puberty and age 16 and then gets smaller as one ages into adulthood. During adolescence teens experience more pleasure compared to adults. Steinberg explains that compared to adolescents, "life for an adult is like walking past a plate of warm chocolate chip cookies with cotton in your nose. You can smell the cookies but the sensation is dulled." This super sensitivity makes adolescents naturally more attentive and responsive to rewards than adults. This is one reason that youth who start using drugs in early adolescence are more likely to become addicted than those who start using drugs at an older age. Compared to children and adults, adolescents are also less sensitive to losses. When weighing the relative costs and benefits of risky behaviors teens place a lot more emphasis on potential rewards and a lot less emphasis on potential consequences compared to adults or children. This is why they might get themselves into a dangerous situation in pursuit of a potential reward. The adolescent brain is particularly sensitive to other people's emotional cues, such as,

facial expressions. There is heightened arousal of regions of the brain that are sensitive to social acceptance and social rejection. (*Who knew there was a neurological explanation for all of that social drama?*) Adolescents become more sensitive to the opinions and evaluations of others, especially those of their peers.



Their super sensitivity to the opinions and emotions of others can dull their perceptions of other potentially important information. That is why yelling at adolescents in an angry voice may not be the best way to communicate with them. Their brains are wired to focus on the emotion and may miss the content of one's words. When it comes to "peer pressure" there is often very little pressuring needed to impact their behavior. When adolescents are in the presence of peers the reward centers in their brains light up. (*This doesn't happen for adults.*) Experimental studies found that youth take more chances in the presence of peers than when they are alone. Peers don't have to do or say anything to have this effect. Adolescents don't even have to know the other kids present for this to occur. Being around peers heightens an adolescent's sensitivity to social rewards. This is why they may go out of their way for social rewards, such as to get attention, when they are with peers. Being around peers makes

adolescents more sensitive to all rewards including ones associated with risky behaviors. Adolescents' preference for immediate rewards is also heightened when they are with peers. This is why adolescents may exercise poorer judgment when they are with peers than when alone. The bad news is that the adolescent brain is hard wired for risk taking, especially when they are with peers. The point at which the adolescent brain fully matures occurs much later than was previously thought. The takeaway for parents and others dealing with teens is that a teenager's capacities for self control and good judgment can either be supported or undermined by their circumstances. Teens make better decisions when they are calm, well rested, and aware they'll be rewarded for making good choices. They are likely to be more motivated by the prospect of a reward than by the threat of potential punishment. Until their self control is fully mature they need monitoring, especially when they are with peers. They need adults in their lives to help protect them from exposure to situations and substances that threaten their well-being. While much of the focus on adolescence is often about the risks, researchers have also learned that during adolescence there is a tremendous period of "neuroplasticity." The adolescent brain has an enormous capacity for development that can be greatly stimulated by providing youth with opportunities for new experiences and new responsibilities. This means that adolescence can also be a period of great opportunity, for youth to not only survive adolescence, but to thrive.