

Teens Brains

All those frustrating habits that drive parents and youth leaders crazy have less to do with raging hormones and more to do with some radical changes at work in the nether regions of kids' craniums.

Researchers have discovered:

*Contrary to the long-held belief that the human brain is basically finished developing at age 12, scientists now believe that 25 is the magic number.

*The reason some teenagers make terrible, life-changing choices is that the hormone bath that brings on puberty coincides with the as-yet-undeveloped brain's shortage of cognitive "brakes"-the kind that dictate mature behavior.

*There are two major "seasons" of brain growth-from birth to age 6, and from age 6 to 12. In the second season, the brain is like a tree that's growing an unbelievable number of new branches. Toward the end of that season, a kind of pruning kicks into gear, and a lot of those fresh branches are cut. You get fewer but faster connections in the brain" during pruning. And the last part of the brain to undergo this pruning is the prefrontal cortex, home of the "executive functions"- planning, setting priorities, organizing thoughts, suppressing impulses, and weighing consequences.

Scientists and the general public had attributed the bad decisions teens make to hormonal changes. But once we started mapping where and when the brain changes were happening, we could say, Aha, the part of the brain that makes teenagers more responsible is not finished maturing yet. The parts of the brain responsible for things like sensation-seeking are getting turned on in big ways around the time of puberty. But the parts for exercising judgment are still maturing throughout the course of adolescence... It's like turning on the engine of a car without a skilled driver at the wheel.

Advice to adults who want to help teenagers through "prune-land,":

1. Adults who are positively involved in kids' lives can make a deep difference.
2. You can't give teenagers too much love-they're desperate for it.
3. Recognize that teenagers have new cognitive abilities, and they'll challenge things that don't sit well.
4. Kids need structure and boundaries almost as much as they need love.
5. Teenagers can't help but experiment with self-reliance, so give them plenty of safe opportunities to try out their autonomy.