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[Why Are Teens So Aggressive?](#)

A brain difference

Teenagers have this tendency to escape parental control. It may be a hormonal cause, but a new research published in the "Proceedings of the National Academy of Sciences" comes with a totally new factor: a different brain structure (more precisely a larger amygdala, the area connected to emotional responses). During puberty, the hormonal boost increases the size of the amygdala, which turns more active, causing the more aggressive behavior. In adults, the prefrontal cortex controls the amygdala, inducing a socially correct behavior, but during adolescence, the prefrontal cortex is still maturing and the control on the amygdala is weak. With the age, the wiring between the two areas increases and the prefrontal cortex control on the amygdala is boosted. The increase in the prefrontal cortex and shrinking of the amygdala is translated in a less aggressive behavior in adults. The team led by Nicholas Allen, a psychologist at the University of Melbourne, Australia, videotaped 137 preteens and teenagers, aged 11 and 14, as they talked with their parents on themes that in most cases caused disagreements, like bedtime, homework, or cell-phone use. The team registered facial expressions and tone, but also assessed the size of different brain nuclei in the young through brain imaging. A relatively larger amygdala was connected to increased aggressive behavior during talks with the parents. Moreover, boys having a left prefrontal cortex bigger than the right side were less emotionally sensitive. [img=2]"The left side of the cortex plays a greater role in squelching impulsive behavior, meaning that when it's larger than the right side, impulses may be better controlled," said Allen. "Researchers have been seeking a connection between the brain imaging and the 'so what,' or the clinical significance, but that link has been elusive. The next step is to track these adolescents and see how their brains change over time," said psychiatrist Jay Giedd of the National Institute of Mental Health, in Bethesda, Maryland.