

Teens may have less impulse control when faced with danger

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Study authors say this might make them more likely to commit crimes.

(HealthDay)—Teens react more impulsively to danger than children or adults, which might explain why they're more likely to be involved in crimes, according to a new study.

"Crimes are often committed in emotionally charged or threatening situations, which push all the wrong buttons for reasoned decision-making in the [adolescent brain](#)," lead author Kristina Caudle, of Weill Cornell Medical College, said in a Society for Neuroscience news release.

"It's fascinating because, although the brains of young children are even less mature, children don't exhibit the same attraction to risky or

criminal behaviors as do adolescents," Caudle said.

The researchers monitored the brains of 83 participants, aged 6 to 29, while they were shown pictures of faces with threatening or neutral expressions. The participants were instructed to press a button when they saw a neutral face and to refrain from pressing when they saw a threatening face.

Teens were less able than children or adults to refrain from pressing the button when they saw a threatening face. Teens who were able to control their response to threatening faces showed significantly higher activity in an area of the brain called the [ventromedial prefrontal cortex](#) compared to [children](#) and adults.

The [prefrontal cortex](#) is the part of the brain responsible for monitoring personality and impulse control. In adults, this brain section helps regulate responses to emotional situations, but it's in a state of change in teenagers.

"Our research suggests that biological changes of [this part of the [brain](#)] during adolescence influence emotional processes, such that dangerous activities bring their own emotional reward," Caudle said.

The study is scheduled to be presented Wednesday at the annual meeting of the Society for Neuroscience, in San Diego. The data and conclusions should be viewed as preliminary until published in a peer-reviewed journal.

More information: The U.S. National Institute of Mental Health has more about the [teen brain](#).

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