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Risky Teenage Boy Behavior Explained

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We all know teenage boys to be particularly prone to getting themselves into risky situations, and researchers behind a new study have attempted to gain insight into the brain mechanisms behind this bad boy behavior.

"Psychologists, psychiatrists, educators, neuroscientists, criminal justice professionals and parents are engaged in a daily struggle to understand and solve the enigma of teenage risky behaviors," Pradeep Bhide, from Florida State University College of Medicine Neuroscientist, said in a statement.

"Such behaviors impact not only the teenagers who obviously put themselves at serious and lasting risk but also families and societies in general."

Typical conduct of adolescent boys includes responding tothreats, disregarding potential consequences, fearlessness, and interest in gambling.

Research conducted 19 separate studies to get to the bottom of this behavior, investigating from several different angles, including psychology, neurochemistry, brain imaging, clinical neuroscience and neurobiology.

Based on magnetic resonance imaging, researchers found that unlike children or adults, teenage boys show enhanced activity in the part of the brain that controls emotions when confronted with athreat. There is even a part in the limbic brain of adolescent males that tells them to react to a situation even when they might be warned not to.

Using brain activity measurements, another team of researchers found that teenage boys were mostly immune to the threat of punishment but hypersensitive to the possibility of large gains from gambling. It makes researchers question whether warning these testosterone-ridden teenagers that there will be consequences to their actions is even effective.

Another study demonstrated that a molecule known to be vital indeveloping fear of dangerous situations is less active in adolescent male brains. This neurochemical difference could explain why teenagers are quicker to take risks compared to adults.

"The new studies illustrate the neurobiological basis of some of the more unusual but well-known behaviors exhibited by our teenagers," Bhide said.

The researchers hope their findings may be useful in better interacting with teenagers, better educational strategies and how to hone in their bad behavior.

The studies are published in the journal *Developmental Neuroscience*.