

# ***The Power of the Adolescent Brain: A TAG Talk***

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## Transcript — Segment 4: Adolescents and Mental Health

*Frances Jensen:*

What we've learned about brain development helps us understand the bad reputation teens have for poor decision making, risk taking, and inability to consider the consequences of their behavior and think ahead. We now know that the teen's brain is wired for learning. Teens can learn more quickly than the adult, which helps us explain why teenagers may be the only one in your house who knows how to fix the computer or smartphone.

The brain during the teenage years is also open to experiences that shape its development. This presents opportunities for parents, grandparents, educators, and other adults to have a very positive impact on a teen's life. Scientists increasingly view mental illnesses as developmental disorders of the brain and that many of them have their roots in the process of brain maturation. By studying how the circuitry of the brain develops, scientists hope to understand when and why brain development can result in mental illness.

In fact, recent research is showing that many kinds of mental illness have their onset in late childhood, the teenage years, or early adulthood. This is not a coincidence. In fact, in order to be able to exhibit a mental illness, one has to have a certain level of brain development accomplished. An example of this would be schizophrenia, depression, bipolar disorder, which all need to have a certain level of functioning, or dysfunction, in the frontal and pre-frontal cortices.

One thing we know is that adequate sleep is central to physical and emotional health. Research suggests that brain-based changes in the regulation of sleep may contribute to a teen's tendency to stay up late at night. Along with the obvious effects, such as fatigue and difficulty maintaining attention, inadequate sleep is a powerful contributor to irritability and depression. Studies of children and adolescents have also found that sleep deprivation can increase impulsive behavior.

Mental illness affects one in four people at some point in their life span. In fact, almost two-thirds of people with major psychiatric conditions have their onset between 15 and 25. This means that the teen years and young adult years are a time of great vulnerability to the onset of these illnesses, and we should think about being extra-vigilant for signs of mental illness at this window. This can be during high school, or college, or a first job. These are typical times when someone might have their first symptoms of a mental illness.

Understanding the changes taking place in the brain during this period presents an opportunity to intervene early in mental illnesses that often have their onset during the adolescent and young adult years. Research findings on the brain also serve to help adults understand the importance of creating an environment in which teens and young adults can explore and experiment, while helping them avoid behavior that's destructive to themselves and others.

For more information on brain development and mental health for teenagers, please check out these resources and other webcasts in this series. Thank you.