

THE TEEN BRAIN: 7 THINGS TO KNOW

From the **NATIONAL INSTITUTE of MENTAL HEALTH**

DID YOU KNOW THAT **BIG AND IMPORTANT CHANGES** ARE HAPPENING IN THE BRAIN DURING ADOLESCENCE? HERE ARE **7 THINGS TO KNOW ABOUT THE TEEN BRAIN:**

1 THE BRAIN REACHES ITS BIGGEST SIZE IN EARLY ADOLESCENCE.

For girls, the brain reaches its biggest size around 11 years old. For boys, the brain reaches its biggest size around age 14. But this difference does not mean either boys or girls are smarter than one another!



2 THE BRAIN CONTINUES TO MATURE EVEN AFTER IT IS DONE GROWING.

Though the brain may be done growing in size, it does not finish developing and maturing until the mid- to late 20s. The front part of the brain, called the prefrontal cortex, is one of the last brain regions to mature. This area is responsible for skills like planning, prioritizing, and controlling impulses. Because these skills are still developing, teens are more likely to engage in risky behaviors without considering the potential results of their decisions.

3 THE TEEN BRAIN IS READY TO LEARN AND ADAPT.

The teen brain has lots of plasticity, which means it can change, adapt, and respond to its environment. Challenging academics or mental activities, exercise, and creative activities such as art can help the brain mature and learn.



4 MANY MENTAL DISORDERS MAY BEGIN TO APPEAR DURING ADOLESCENCE.

Ongoing changes in the brain, along with physical, emotional, and social changes, can make teens vulnerable to mental health problems. All the big changes the brain is experiencing may explain why adolescence is a time when many mental disorders—such as schizophrenia, anxiety, depression, bipolar disorder, and eating disorders—can emerge.



5 TEEN BRAINS MAY BE MORE VULNERABLE TO STRESS.

Because the teen brain is still developing, teens may respond to stress differently than adults, which could lead to stress-related mental disorders such as anxiety and depression. Mindfulness, which is a psychological process of actively paying attention to the present moment, may help teens cope with and reduce stress. More information on managing stress is available in the National Institute of Mental Health's fact sheet, 5 Things You Should Know About Stress (www.nimh.nih.gov/stress).



6 TEENS NEED MORE SLEEP THAN CHILDREN AND ADULTS.

Research shows that melatonin (the “sleep hormone”) levels in the blood are naturally higher later at night and drop later in the morning in teens than in most children and adults. This difference may explain why many teens stay up late and struggle with getting up in the morning. Teens should get about 9 to 10 hours of sleep a night, but most teens do not get enough sleep. A lack of sleep can make it difficult to pay attention, may increase impulsivity, and may increase the risk for irritability or depression.



7 THE TEEN BRAIN IS RESILIENT.

Although adolescence is a vulnerable time for the brain and for teenagers in general, most teens go on to become healthy adults. Some changes in the brain during this important phase of development actually may help protect against long-term mental disorders.



FINDING HELP

If you or someone you know has a mental illness, is struggling emotionally, or has concerns about their mental health, there are ways to get help. Find more information at www.nimh.nih.gov/findhelp.

Communicating well with your doctor or other health care provider can improve your care and help you both make good choices about your health. Find tips to help prepare and get the most out of your visit at www.nimh.nih.gov/talkingtips.

If you are in immediate distress or are thinking about hurting yourself, call the National Suicide Prevention Lifeline toll-free at 1-800-273-TALK (8255) or the toll-free TTY number at 1-800-799-4TTY (4889). You also can text the Crisis Text Line (HELLO to 741741) or go to the National Suicide Prevention Lifeline website at <https://suicidepreventionlifeline.org>.



www.nimh.nih.gov

NIH Publication No. 20-MH-8078
Revised 2020