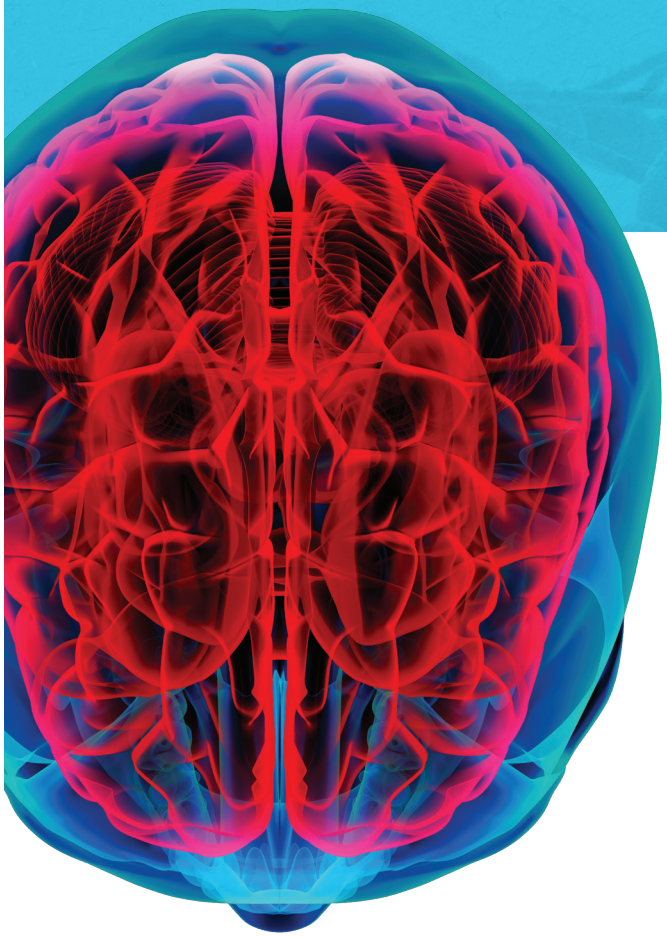
Adolescent Brain Cognitive Development

Teen Brains. Today's Science. Brighter Future.

WHAT IS THE ADOLESCENT BRAIN COGNITIVE DEVELOPMENT (ABCD) STUDY?

ABCD is a landmark study on brain development and child health supported by the National Institutes of Health (NIH). This project will increase our understanding of environmental, social, genetic, and other biological factors that affect brain and cognitive development and that can enhance or disrupt a young person's life trajectory.



HOW WILL THE ABCD STUDY BE IMPLEMENTED?

Unique in its scope and duration, the ABCD study will:

- Recruit 10,000 healthy children, ages 9 to 10 across the United States, and follow them into early adulthood.
- Use advanced brain imaging to observe brain growth with unprecedented precision.
- Examine how biology and environment interact and relate to developmental outcomes such as physical health, mental health, and life achievements including academic success.

WHY DO WE NEED THE ABCD STUDY?

Adolescence is a period of dramatic brain development in which children are exposed to all sorts of experiences. Yet, our understanding of precisely how these experiences interact with each other and a child's biology to affect brain development and, ultimately, social, behavioral, health, and other outcomes, is still incomplete. As the only study of its kind, the ABCD study will yield critical insights into the foundational aspects of adolescence that shape a person's future.

WHAT WILL WE LEARN FROM THE ABCD STUDY?

The size and scope of the study will allow scientists to:

- Identify individual developmental trajectories (e.g., brain, cognitive, emotional, academic) and the factors that can affect them.
- Understand the role of genetic vs. environmental factors on development.
- Examine the effects of physical activity, screen time, and sleep, as well as sports and other injuries, on brain development and other outcomes.
- Study the onset and progression of mental disorders.
- Determine how exposure to sustances (e.g., alcohol, marijuana, nicotine, caffeine) and new ways of taking them (e.g., vaping, dabbing) affect developmental outcomes and vice versa.
- Understand the impact of changing state and local policies and laws (e.g., marijuana, tobacco, alcohol) on youth drug use and related health and development.

WHO IS LEADING THE ABCD STUDY?

The ABCD study is led by the Collaborative Research on Addiction at NIH (CRAN):

- National Institute on Drug Abuse (NIDA)
- National Institute on Alcohol Abuse and Alcoholism (NIAAA)
- National Cancer Institute (NCI)

In partnership with:

- *Eunice Kennedy Shriver* National Institute of Child Health and Human Development
- National Institute of Mental Health
- National Institute of Minority Health and Health Disparities
- National Institute of Neurological Disorders and Stroke
- NIH Office of Behavioral and Social Sciences Research

For more information, visit:
www.drugabuse.gov/abcd

For more information for researchers, visit:
www.addictionresearch.nih.gov/abcd