



Adolescent Brain Cognitive Development®
Teen Brains. Today's Science. Brighter Future.

ABCD BLOOD SAMPLES

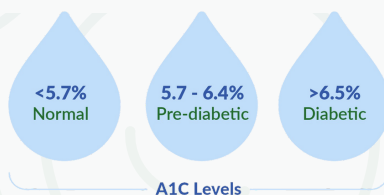


Blood collected as part of The ABCD Study® is used in many ways. The first is to run basic blood tests to understand how your body is functioning. Any leftover blood will be stored securely for future research.

What tests are done with blood collected in ABCD?

ABCD collects blood from participants to conduct tests that provide key information about your health.

Hemoglobin A1C



The average level of glucose (blood sugar) in your bloodstream over the past three months.

This information can help us see if you are at risk for diabetes.

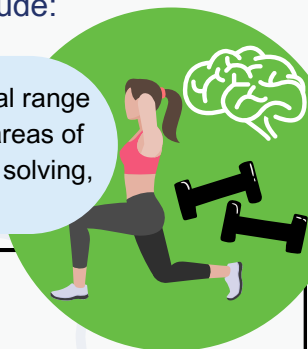
What do we learn from these blood tests?

Together with magnetic resonance imaging (MRI) and survey responses, these blood tests provide important information that researchers can use to study youth development over time.



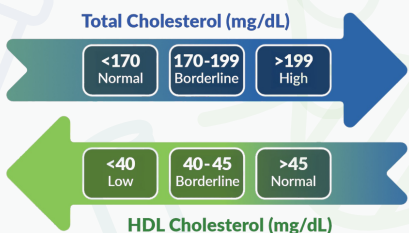
Some recent published findings include:

Glucose and cholesterol levels within the normal range were associated with healthy development in areas of the brain that control decision-making, problem solving, and managing emotions.



Cholesterol

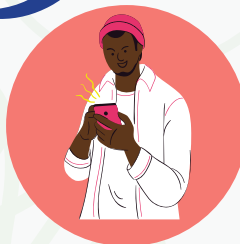
The average level of cholesterol (a waxy, fat-like substance made by your liver) and other fats in your blood.



High levels of the so-called “bad cholesterol” (low-density lipoprotein or LDL) can put you at risk for future heart disease and stroke.



Each additional hour of screen use per day was associated with lower HDL cholesterol, which can increase the risk of heart disease



Higher step counts as measured by the Fitbit activity tracker were linked to lower total cholesterol

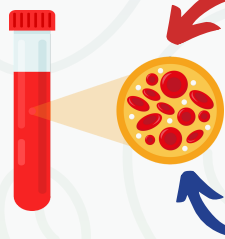


Complete Blood Count (CBC)

The quantity, size and makeup of your red and white blood cells.

Red blood cells are important because they carry oxygen throughout your body.

White blood cells are important because they help you fight infections.

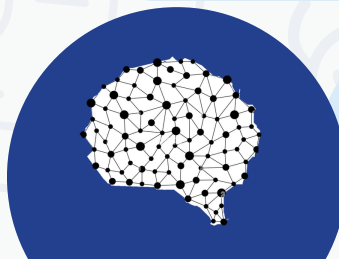


Data from the CBC is used to understand measures of inflammation, which are associated with:

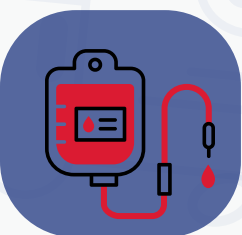
Emotional dysregulation in ADHD



Changes in the way areas of the brain communicate and work together



BY THE NUMBERS



18,000+

Blood draws,
which have led to:



48,000+

Serum and whole blood
samples collected

185,000+

Smaller portions, called
“aliquots,” of serum, plasma,
and whole blood for future use

23,000+

DNA Samples from whole blood

10,000+

Results returned to participants

20

Test results that alerted
participants to potentially
serious health issues *



ABCD also stores the extra blood, plasma, serum, and DNA for future use by researchers who have new questions about adolescent health and development.



Researchers who want to use your data or biological samples have to take training about responsible use of data and biospecimens, and the ethical and statistical considerations for doing their research.

They also have to agree to a code of conduct that includes keeping your data secure.



*as of 6/2026

This information is made possible by the Adolescent Brain Cognitive DevelopmentSM Study

Teens participating in this study help scientists answer important questions that improve their understanding about health in teens and young adults. These and other ABCD-supported studies let us learn more about how the brain develops, improving the health and well-being of children now and for future generations.

Learn more: abcdstudy.org/families

References:

Cotter DL, et al., Brain, Behavior, & Immunity - Health. 2024; 38:100799.
doi.org/10.1016/j.bbih.2024.100799

De Moraes, ACF et al., Mental Health and Physical Activity. 2024; 27:100611.
doi.org/10.1016/j.mhpa.2024.100611

Hou, W et al., Nat. Mental Health. 2024; 2: 840–852.
doi.org/10.1038/s44220-024-00251-z

Nagata, JM et al., BMC Public Health. 2024; 24:1346.
<https://doi.org/10.1186/s12889-024-18790-6>