Newsletter

Winter 2026

HBCD teams across the country are thrilled to continue working with our participating children and families!

The Importance of Long-Term Research

Children's brains are constantly changing during their first few years of life, and those changes happen fast. In the HBCD Study, researchers take the same type of images at each visit to see how the brain develops over time. By returning for study visits, families help researchers understand how brain development unfolds from infancy through early childhood. Every visit lets us learn more. The gaps in information from missed visits are a bit like skipping a chapter in a book—you can still come back to finish the book, but you miss important details that help the story make sense.

MRIs Across Ages

An MRI is a safe, non-invasive way to take pictures of a child's brain and measure their brain activity. The MRI scanner—which sometimes looks like a large donut or tunnel—uses a strong magnet to create these images. This machine helps HBCD researchers learn about brain growth and development.

During the first few visits, MRI scans are taken while babies are asleep. However, after about age three, starting at Visit 8, children will transition to being awake during their MRI scans. During awake MRIs, we can gather more detailed information by asking participants to complete specific tasks or watch a video during the scan. This approach allows researchers to observe how a child's brain responds in real time as they engage in these activities.

Our families, researchers, and study site teams are key to answering our research questions, like how nutrition, sleep, and early experiences shape brain development. Participation in the study deepens our understanding of early childhood and advances children's health and well-being. Hear what motivates people to support the HBCD Study—click to view testimonials.

Print readers: access a digital version of this newsletter

Here is how you and your child can prepare for their awake MRI visit:

Dress your child comfortably.

Children should not wear metal sequins, snaps, zippers, or buttons. Staff will ensure children are safe and metal free. If they don't have any metal-free clothes, don't worry. We'll have something they can wear during the scan.

Describe what your child should expect during their awake MRI.

The MRI machine can make loud knocking or clicking sounds during the scan, so they'll be given comfortable ear protection.

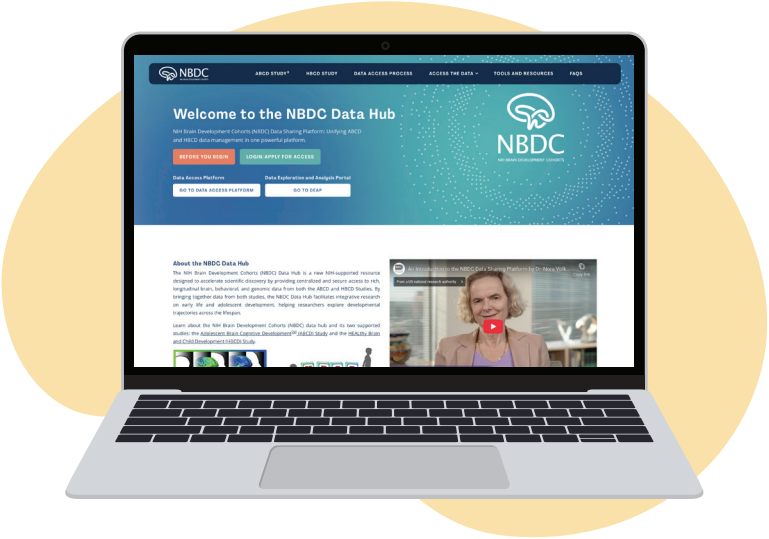
Explain that children need to stay very still during MRI scans so that the pictures come out clearly.

They can practice lying still at home before the scan. Turn these practice sessions into a game—how long can they lie still? Remember—stay still like a statue and soft like a stuffy!

The HBCD Study Data Release 2.0 is Coming Soon!

We're excited to share that the HBCD Study Data Release 2.0 is expected later this winter! This release builds on Data Release 1.0, which became available in June 2025, and will include data from Visits 1 through 5 and introduce approximately 30 new study measures, including language development and physical activity.

Data Release 2.0 will be hosted on the NIH Brain Development Cohorts (NBDC) Data Hub, which also provides access to data from the Adolescent Brain Cognitive Development℠ Study. Information on how to access these datasets is available on the NBDC Data Hub site.



A "data release" is how researchers share de-identified information collected during a study so it can be used to answer important scientific questions. Each release includes data from study visits completed since the previous release. Our summer 2025 newsletter has more information on data releases.

Research Spotlight: Language and Learning Questionnaires

The questionnaires caregivers complete during their child's HBCD Study visits help us learn about children's language, memory, number recognition, and attention. These responses, plus the interactive assessments your child completes, can paint a more complete picture of children's development and skills.

HBCD researchers will be able to connect findings from brain imaging (e.g., MRI) with questionnaire results to determine whether brain structure or activity is associated with language or learning. In addition, researchers can look for similar connections to environmental exposures or social factors.

You can read more about how HBCD researchers plan to measure language and learning skills here.

Site Spotlight

Virginia Tech

The Fralin Biomedical Research Institute at Virginia Tech (VT) in Roanoke, Virginia, is home to one of the 27 HBCD recruitment sites across the country. It's led by principal investigators Drs. Martha Ann Bell, Kathy Hosig, and Brittany Howell, and staffed by a team of clinicians, research assistants, and study coordinators. Together, they help families in the community by providing a welcoming environment for research participants. In addition, the team at VT has built strong relationships with various community partners, including local health care provider offices, so that parents have other trusted sources of information they can turn to.

Dr. Howell believes that the families who join HBCD (at VT or any site) have a unique opportunity to inspire change for and support families like their own.

"Our participants join the study because they want to share their experiences and help other families. And we can't meet any of our goals or answer any of our questions without them," she says.

Watch this video to meet some of the friendly faces who work at the VT HBCD Study site.

For more information, please visit HBCDStudy.org

Follow us on Facebook and Instagram @HBCDStudy

HEALthy Brain and Child Development
Babies · Brains · Bright Futures