

Why study siblings?

While we do not know specifically what causes autism, twin and family studies have demonstrated that genetic factors play a significant role in many cases. In the search to understand autism, many research programs have begun looking at younger siblings of children with autism. While your child most likely is not at risk, past family studies have found that siblings of a child with autism are at a higher risk for having autistic disorder than the general population. Therefore, we have the opportunity to gain insights into the developing brain in autism at these early ages before a formal diagnosis is determined. Most recently, results from our MRI study of brain development in 2 year olds showed that brain enlargement is present at a young age in children with autism. The data collected suggest that brain overgrowth may begin as early as 12 months of age, or earlier. This current project aims to identify very early brain features that may be characteristic of infants at risk for autism by comparing them with features of typically developing infants.



Who are we looking for?

The project will involve nearly 650 infants and toddlers across the nation, and Washington University in St. Louis will enroll approximately 166 of those children. Through your participation, you and your children can help us learn more about how the brain develops in very early years. This information can help researchers and doctors come closer to providing answers about where autism comes from and why it affects so many children around the world. WE NEED YOUR HELP TO REACH OUR GOALS.

We are looking for infants who have a typically developing older sibling as a control sample for this project.

WHY? The control sample allows us to compare/contrast brain development in baby siblings not at risk for autism with those at risk for autism (based on having an older sibling with a diagnosis). This comparison is a very important part of the study, and participation of families with or without a child with an autism diagnosis is invaluable.

If you think you qualify for the study or know a family who might, please call **1-888-845-6786** for more information.

We are also looking for infants from birth to 12 months, who have an older sibling with an autism diagnosis to participate in the study.

WASHINGTON UNIVERSITY RESEARCHERS

Dr. Kelly Botteron, MD, Associate Professor of Psychiatry (Child) and Radiology. Dr. Botteron is the Principal Investigator for this study at the St. Louis site. Dr. Botteron is a child psychiatrist with a longstanding clinical interest in autism and extensive research experience with MRI scanning.

Dr. John Constantino, MD, Associate Professor of Psychiatry and Pediatrics and Head of the Division of Child Psychiatry. Dr. Constantino is a child psychiatrist with over 15 years experience in autism research, including studies of infant siblings and is Co-Investigator of the St. Louis MRI site.

Lisa Flake, MSW, is project coordinator of the Washington University in St. Louis site study. Ms. Flake has ten years of experience in neuropsychological testing, interviewing and neuroimaging with infants and children.



For more information about the study and the research team, please visit:

www.infantsibs-stlouis.org

or call

1-888-845-6786

 Washington University in St. Louis

SCHOOL OF MEDICINE

MIR Mallinckrodt Institute
of Radiology

INFANT SIBLING STUDY AUTISM RESEARCH PROGRAM



Washington University in St. Louis
School of Medicine

1-888-845-6786

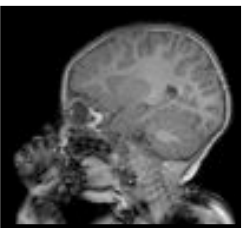
The Goal of the Study



This study is a part of Autism Centers of Excellence Network and is a collaborative effort by investigators at four clinical sites: University of North Carolina, University of Washington, Washington University in St. Louis, and the Children's Hospital in Philadelphia; and one data coordinating center at the Montreal Neurological Institute, to conduct a longitudinal MRI/DTI and behavioral study of infants at high risk for autism (i.e., siblings of autistic individuals) at 6, 12, and 24 months of age.

The goal of our study of brain development in infants at risk for autism is to increase our understanding of how the brain develops and to look for abnormal patterns of brain growth. There are surprisingly few large-scale studies of brain development in autism over time. There are even fewer that look at brain development in infants and very young children. With your support we will be able to investigate more thoroughly the initial stages of significant brain overgrowth. We will use newly developed assessment tools to help us identify infants at high risk for autism. Through the use of MRI technology we will capture images of the brain and perform sophisticated brain measurements. The data gathered in this study will provide important information regarding early brain development in autism, which may in turn provide clues that will eventually result in early interventions and improve outcomes for children with autism.

What is MRI?



Magnetic Resonance Imaging is a painless technology used to view inside the body without using x-rays. It can produce two or three-dimensional images using a large magnet, radio waves and a computer. The magnetic fields MRI uses are not known to be harmful and are painless. Dramatic advances in MRI and imaging analysis are opening new windows into the structures and processes of brain disorders, enabling

researchers to launch promising studies that may help to better understand typical and atypical brain development. **This study does not use any kind of contrast dye or radiation during the scans, and all the scans are done during the baby's natural sleep with no sedation or medications.**

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This study of early brain development in autism has the potential to provide important clues relevant to early detection of autism and to discover the early changes in the brain of young children with autism.

What does participation involve?

Participation in the study can last up to three years. Throughout that time, you will travel with your infant child to Washington University in St. Louis for three separate visits when your infant child is 6, 12 and 24 months of age. During your visits to St. Louis your infant will receive developmental and behavioral assessments, an MRI scan of the brain and assistance with referrals for local services.

In addition, throughout the three year participation period, there are many phone interviews that can be conducted from your home or work about your children's development, family medical history and your pregnancies. These interviews vary in length and will help give us additional information to use with the MRI results and developmental testing your child will receive.

What are the costs?

There are NO costs for the participating family throughout the study. All of the assessments, procedures, and MRI scans associated with the project are provided at no cost to your family or your insurance company. You will be reimbursed for travel and related expenses upon your visits to St. Louis. You will also receive financial compensation for your participation in the study.

For more information visit:

www.infantsibs-stlouis.org



What are the benefits?

Participating in this study has potential long term benefits for families worldwide who have children with autism. You can help to significantly advance our knowledge of early brain development in autism. By participating in the study you will receive:

- A brief report summarizing the results of the neurological, learning, language and behavioral assessments of your child.
- If any results indicate areas of concern or clinically significant problems, advice on how to follow-up with these concerns will be offered.
- The information discovered in the study can also be communicated to your child's primary care physician with your permission.
- Your family will also be compensated for your time and commitment to the study.

Most importantly, the benefit of your participation is helping lead to answers for the many families, researchers and doctors who still do not know why some children develop autism, where it comes from, or how to prevent it. Studies like this one and others need YOUR help to come closer to filling in the missing pieces. *Your help is greatly appreciated.*

YOU could help solve the puzzle.

NOW ENROLLING. Please Call 1-888-845-6786

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