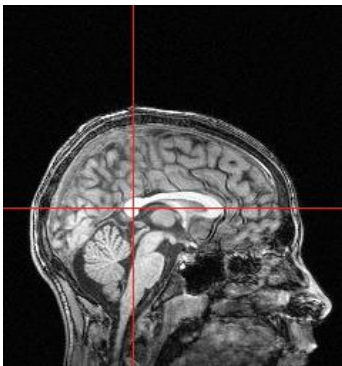


BRAIN DISCOVERIES DRIVEN BY REAL PEOPLE

The University of Minnesota Fetal Alcohol Spectrum Disorders (FASD) Program is focused on clinical care and brain research for children with prenatal alcohol exposure.

- The University of Minnesota FASD Clinic, which started in 1978, has worked with thousands of children with all levels of learning and behavior effects from prenatal alcohol exposure.
- The FASD Program works closely with the University's FASD Clinic, International Adoption Clinic, Masonic Institute for the Developing Brain and community agencies.
- Our research team is using magnetic resonance imaging (MRI) techniques to study the brain changes caused by prenatal alcohol exposure and is testing experimental interventions to address cognitive and behavioral functioning
- Our research results are shared locally with families and professionals, at international FASD research conferences, and in medical and scientific journals.
- Our clinical experiences with children affected by FASD guide all of our research questions.



THE STUDY TEAM

- **Jeffrey R. Wozniak, Ph.D.** – Principal investigator, Professor, Director of the UMN FASD Research Program
- **Amy Gross, Ph.D., BCBA** – Psychologist, Associate Professor, Interim Director, UMN FASD Clinic
- **Kelvin O. Lim, M.D.** – Psychiatrist, Professor of Psychiatry, Director: Laboratory for Neuropsychiatric Imaging
- **Bryon Mueller, Ph.D.** – MR Physicist, Associate Professor in Psychiatry

Contact us

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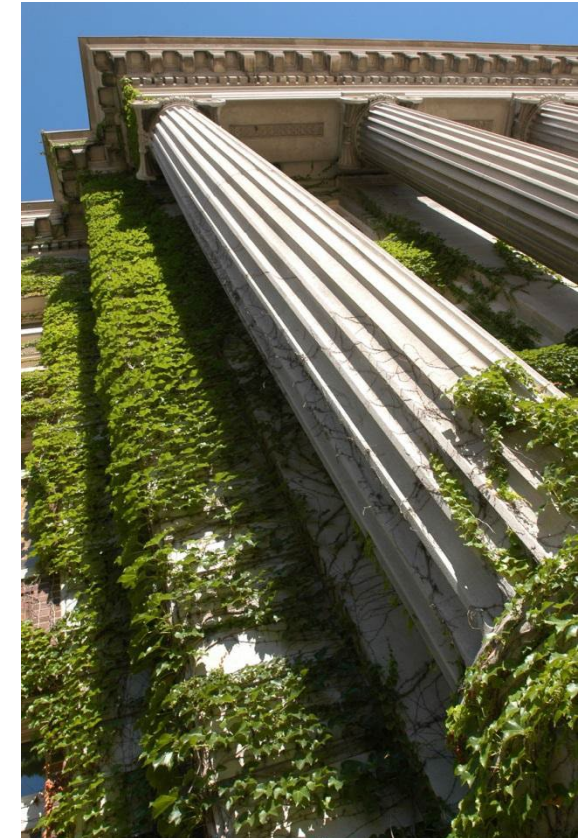
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Fetal Alcohol Spectrum Disorders (FASD)

BRAIN TRAINING STUDY



fasd@umn.edu

UNIVERSITY OF MINNESOTA
Driven to DiscoverSM

Approved for use by UMN IRB
Effective on 6/10/2022
IRB Study Number: 00015946

ALCOHOL AND THE DEVELOPING BRAIN

Children who were exposed to alcohol during pregnancy are at risk for developmental delays.

- No level of alcohol consumption during pregnancy is safe for the child.
- Brain damage can occur even with limited alcohol exposure.
- Alcohol can cause brain damage at any time during pregnancy.
- Developmental delays range from minor to severe (across a “spectrum”).
- Rates of attention problems and learning disorders are high in children exposed to alcohol during pregnancy.

University of Minnesota researchers are testing an intervention in children and adolescents who have neurodevelopmental effects of prenatal alcohol exposure:

- The research is focused on testing the intervention during a timeframe when the child’s brain is still rapidly developing.
- University researchers are interested in testing cognitive rehabilitation (computerized brain training) along with mild electrical current on the scalp designed to increase learning from the brain training.

BRAIN TRAINING

This research, supported by a grant from the *National Institutes of Health*, is studying the effects of computerized cognitive training for brain development in Fetal Alcohol Spectrum Disorders (FASD). The goals of this clinical trial are to determine if children with FASD benefit from repeated sessions of computerized “games” designed to build attention, concentration, memory, and problem-solving and also to test whether mild electrical current on the scalp called transcranial direct current stimulation (tDCS) can improve learning during the computerized “brain training”. Participants will be randomized to cognitive training + active tDCS for 10 sessions or cognitive training + 5 active tDCS sessions + 5 non-active tDCS sessions.

We will also use MRI scans of the brain to determine if there are changes in the brain’s networks after cognitive training with and without the mild electrical current on the scalp.

- The study will use age-specific measures of brain development, some of which have been developed by the University. These include detailed measures of learning, memory, mental flexibility, and behavior.
- The study will be enrolling approximately 70 children / adolescents. The study will continue until 2027.

YOU CAN HELP

If you have a child between the ages of 8 and 17 who was exposed to alcohol during pregnancy, we would like to speak with you about participating in this study.

Visits to the Masonic Institute for the Developing Brain at the U of MN will be scheduled at your convenience.

There will be no cost to you. All expenses including testing, developmental assessments, mileage and convenient parking will be paid for by the study. Participants will also receive payment for their time in the study.

Contact us:

fasd@umn.edu



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