

Volunteers needed... DONATE YOUR BRAIN WAVES TO SCIENCE!

Validating Sensory Processing Disorders Department of Occupational Therapy Colorado State University

Purpose of this study: This is a research study to examine if we can consistently measure how young children (ages 5 to 10 years) respond to repeated sounds and other sensory information, such as touch, smell and movement. In addition, we are trying to determine if children with sensory processing disorders, such as Asperger syndrome/high functioning autism, or attention deficit hyperactivity disorder (ADHD), show different brain activity to sensory stimuli than children without disorders. We use both electroencephalography (EEG) and behavioral testing (paper and pencil “games”) to study sensory processing. EEG is a painless, safe technique that has been used for years both clinically and in research to assess the brain activity of infants, children and adults. Our lab alone has assessed over 500 children!

Who: To be eligible for participation, individuals must:

- Be the ages of 5 to 10 years of age
- Have normal or corrected vision
- Have normal or corrected hearing
- Not have a past history of significant brain injury
- Not have a past history of conditions of epilepsy, schizophrenia, bipolar, or depression.



Children with a clinical diagnosis of sensory processing disorders, Asperger syndrome/high functioning autism, and attention deficit hyperactivity disorder (ADHD) are encouraged to participate

Where: Brainwaves Research Lab at Colorado State University in Gifford Building room 304.

What you will do: The project includes two visits to the lab. For one of these visits, a stretch cap, similar to a bathing cap with metal sensors will be placed on the child's head to record the electroencephalograph (EEG). The sensors do not touch the scalp; instead, a small amount of water-based gel is inserted between the scalp and each sensor to effectively receive the signal from the brain. Then the participant will be asked to listen to some sounds presented through earphones and may be asked to: attend to, make judgments about, classify, ignore, remember, or press a button while the child's electrical activity of the brain is recorded with the EEG system. For the other visit, we may do another listening activity while the child wears the EEG cap and we record brain activity like in the first session. In addition to this, we will have the child complete several pencil and paper activities that requires him/her to respond to sounds or words on a tape recorder/CD. These activities are not hard and designed to be like games.

How long will it take: This study will involve two testing sessions, each will last about 2 or 2.5 hours.

Our participants receive a **T-shirt or a cocoa mug** that have printed on them “I donated my brainwaves to science” as a thank-you gift on the first visit. On the second visit the participants are given a choice of selecting a T-shirt, mug or \$15.

If you wish to volunteer for this study, please contact

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