

Research Study: Infant Neuro Functional Imaging

We are inviting families to take part in an exciting new research study using **a safe and innovative functional ultrasound imaging technology** to explore how infants' brains work while they are awake, alert and interacting with the world around them!

What is this study about?

We are testing a new functional ultrasound imaging technology to study how infants' brains encode and generate goal directed actions – such as reaching for a toy. This safe and non-invasive ultrasound imaging system (similar to what's used during pregnancy) will allow us to:

- Watch how infants' brains plan and carry out simple actions like reaching.
- Capture detailed, real-time images of brain activity.
- Use a portable and baby-friendly tool that is completely safe for babies.

Through this research, we hope to:

- Learn more about typical brain development.
- Identify development differences in babies.
- Open new avenues for developing new therapies and assistive technologies to support children who may be at risk for developmental challenges.

What will my baby do?

In this study, you and your child will visit Casa Colina Children's Services. Your child will engage in simple reaching or observation activities while wearing a functional ultrasound device on the head (sort of like a beanie hat) to

record brain activity, as well as markers on the body (like stickers) to track movements.

Participation requires:

- A one time, 2-hour visit to Casa Colina Children's Services.
- The session will be video recorded to help us understand behavior (you can opt out of having any photos or video recordings used for presentations or publications).
- You will be with your child the entire time!

What do we offer?

- **\$50 compensation** for your time and participation.
- A unique opportunity to contribute to science and help advance research that supports infant development.
- A baby-friendly and welcoming environment led by experienced researchers and child development professionals.

Who can participate?

We are looking for infants who are:

- 6 to 12 months old
- Able to reach for objects or initiate reaching.
- Able to sit up independently or with minimal support.



For more information, please contact Dr. Sofia Sakellaridi, Research Scientist, Casa Colina Research Institute, at ssakellaridi@casacolina.org

