



Pubertal development contributes to significant physical, psychological, hormonal and social changes. It may be a time of increased vulnerability in youth with autism spectrum disorder (ASD). Our goal is to examine stress and arousal across pubertal development in children with and without ASD to identify potential risk factors, treatment targets, and therapeutic strategies.

### Participants

We are seeking a large sample of boys and girls who will be enrolled at ages 10-13 and followed annually over four years; specifically, from 10-13 years, 11-14 years, 12-15 years, and 13-16 years. Participants include children with a confirmed or suspected diagnosis of ASD (free evaluation provided) and children who are typically developing. Participants must have intelligence in the average range (IQ  $\geq$  70).

### Assessments

Participants will come to Vanderbilt University Medical Center for the assessment, which will include confirmation of diagnosis (for ASD group), psychological testing, as well as a brief psychiatric interview and physical exam. Results from the standardized measures will be compiled into a research letter provided to the family.

SENSE Lab

## Examining Stress and Arousal across Pubertal Development in Youth with and without Autism Spectrum Disorder

### Mission

The mission of the SENSE (Social Emotional NeuroScience Endocrinology) lab is to better understand the social and emotional functioning of children with autism and related neurodevelopmental disorders and to translate findings into meaningful approaches and interventions.

### Contact

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# SENSE Lab

Making SENSE of Adolescence

Parents are given questionnaires (online and paper format) during each annual visit. The questions pertain to the participants' social ability, personal stress, pubertal development, as well as emotional and behavioral regulation.

## Social interaction sessions

Participants will interact with similar aged peers and an adult across two different scenarios. The first scenario involves social interaction with others, and the second scenario involves performing a speech. Scenarios will be recorded and behavior analyzed. Participants will also provide saliva samples during the 20-minute scenarios.

## Home saliva sampling to measure stress and hormone levels

Training for saliva collection will be provided on the first visit. Home saliva samples are taken four times per day for two consecutive week days:

1. When the participant wakes up
2. 30-minutes after waking
3. Between 1 pm and 4 pm
4. 30-minutes before bedtime.



Participants may not eat or drink for an hour before the samples are taken. This process is completed annually.

## Visits and time

Visits consist of an Assessment (initial visit ~ 2-3 hours), and Social Interaction visit (~2 hours). In Years 2-4, the Assessment and Social Interaction visits will be combined.

## Potential benefits to participate in the study

- Diagnostic confirmation
- Free annual psychological, psychiatric, and physical exam
- Research report summarizing results from standardized measures
- \$20 per visit to assist with travel costs (\*families traveling 100 miles or more may be eligible for larger compensation)
- Participation in an annual invited symposium on "Adolescents and autism"

## Potential challenges to participate in the study

- Time and effort to come to the University for annual visits
- Keep research team updated as to significant developmental and living (e.g., address) changes

To participate please contact  
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## Commitment

This is a longitudinal study which means that we are committed to following your child over an important four-year developmental period. To the best of our ability, we aim to be available to you over the course of the study for questions and concerns relevant to the focus of the study; namely, adolescence, development and puberty.

If you choose to participate in the study, we ask that you remain in the study over the four years. While it is your right to discontinue at any time we ask that if you no longer wish to participate, to inform us of your decision.

## Expectations for families and peers

The success of the program requires a cooperative effort between Dr. Corbett's team and participants' families. An extensive amount of planning and detail goes into every visit. It is very important for all parties to respect that and strive to adhere to appointments made. Please contact us as early on as possible if you are unable to make it. We will always try our best to accommodate you when unexpected emergencies arise. We are grateful for your willingness to consider being a part of our study, and look forward to working with you. Please do not hesitate to contact us if you have any questions at any point of the process.