



## A Good Night's Sleep: What We Know, and What We Don't

Sleep is a basic human need – like food and water. Although we do not yet know precisely WHY we sleep, we do know how we feel when we haven't had enough sleep – tired, unmotivated, irritable, and just “on edge.”

Unfortunately, getting a good night's sleep can be particularly difficult for children with autism spectrum disorders (ASD), who may resist going to bed, have trouble falling asleep or staying asleep, or wake up too early in the morning. There can be many reasons for these sleep difficulties. Children with ASD may be anxious about falling asleep, may have difficulty settling down for bedtime, may be overly sensitive to sounds in their home, or their “biological clock,” which releases hormones that promote sleep (e.g., melatonin), may not be functioning optimally.

For centuries, sleep was viewed as a time of inactivity; however, we now understand that sleep is an extremely active time, during which hormones are released and memories are solidified. There are two types of sleep: rapid eye movement sleep (REM sleep) and non-rapid eye movement sleep (NREM sleep). Most of our dreaming takes place during REM sleep. The NREM and REM sleep periods cycle throughout the night, and can be measured by performing an electroencephalogram, or EEG study, in which sensors are placed on the scalp and chin and around the eyes. Although researchers are still learning the precise functions of REM and NREM sleep, we know that both types of sleep are important for feeling

fully alert during the day, and both types of sleep play a role in helping us solidify memories from the day into long term storage.

Everyone – children and adults alike – functions better during the day if they get a good night's sleep. Symptoms such as hyperactivity, inattention, and anxiety can be worsened by not sleeping well, and improved by sleeping better. At TRIAD, we are studying the reasons why children with ASD may not sleep well, exploring the relation of sleep to daytime behavior, and developing strategies for promoting sleep. Our goal is to help children with autism become better sleepers.

### Current Sleep Studies

Dr. Beth Malow, Director of the Vanderbilt Sleep Center, in collaboration with Wendy Stone, Director of TRIAD and Susan McGrew, Assistant Professor of Pediatrics, are continuing to perform sleep studies in children with ASD to better understand the relation between sleep, autism, and daytime behavior. In our work, we are finding that parental concerns about a child's sleep match up well with results from sleep studies. We are also looking into the relation of melatonin to sleep, through the collection of urine samples and DNA samples gathered from the inside of a child's cheek.

If your child is between ages 4-10 years and has a clinical diagnosis of autism spectrum disorder, he or she may be eligible for these studies.

Involvement can range from completing surveys to having your child participate in sleep studies, depending on the time and interest of you and your child. We are including children who sleep relatively well and those who have sleep problems.

### Upcoming Studies

We also have two studies on the horizon to help children with autism become better sleepers. One of the studies will focus on using melatonin to help children fall asleep. Melatonin is a natural substance that is also available as a dietary supplement. The second study involves participation by parents in education classes to learn strategies to help their children sleep better. We are hoping to get these studies started in the next several months. The age requirement for children participating in these studies is 4-10 years. In the future, we hope to expand our studies to older children and adolescents.

### Contact

If you are interested in any of these studies, please contact Karen Adkins at 615-936-1646.



## Calling All Parents: New Research Study!

The information that parents provide about their child's behavior is critical, not only for diagnosis, but also for developing appropriate interventions. Dr. Wendy Stone is developing a new, efficient way to collect this information from parents and needs your help.

We are looking for parents of children who are between the ages of 2 – 5 years and have been diagnosed with an autism spectrum disorder.

We will compare different methods of gathering information about children's behavior. Specifically, we will compare responses to questions presented in an interview format with those provided in a written questionnaire.

Participation in the study will require about 2 hours of your time. One visit to TRIAD's clinic in the Village at Vanderbilt will provide TRIAD with valuable information. You will receive compensation for your time.

For more information or to schedule an appointment, please contact Shannon Morgan at 615-322-6517 or [Shannon.Morgan@vanderbilt.edu](mailto:Shannon.Morgan@vanderbilt.edu).

## Vanderbilt Submits Proposal for Autism Center of Excellence

Vanderbilt and University of Miami recently submitted a joint application to NICHD that would establish us as an Autism Center of Excellence (ACE). The ACE network will be replacing the autism networks that are currently funded by NIH. The focus of the Vanderbilt-Miami application is to under-

stand the variability in social-emotional functioning demonstrated by children with autism spectrum disorders. We proposed four research projects, targeting children ranging in age from 3-month-old younger siblings of children with autism to teenagers with autism. If successful, this funding will expand our relationship with the University of Miami that was formalized in January 2006 with the creation of the Marino Autism Research Institute (MARI). Wish us luck!

## PSEP: A New Program for Families

The Parent Support and Education Program (PSEP) at the Vanderbilt Kennedy Center is a new program through which TRIAD autism specialists provide information, support, and consultation to parents of children under 4 years old who are concerned about autism. PSEP operates on a three-session model that includes child and family assessments and two follow-up consultation visits that are individualized to each family. The PSEP philosophy is to build on the strengths of children and families to support their growth and development. Assessments are conducted by a psychologist to identify child and family needs. During the consultation visits, parents receive information about state and local resources, as well as strategies for enhancing interactions and communication. TRIAD consultants also demonstrate teaching strategies and provide teaching tools, such as pictures to use for visual supports. All visits take place at the Vanderbilt Children's Hospital, Doctors' Office Tower.

For more information, please contact Sherry Conatser at 615-936-1705 or [sherry.conatser@vanderbilt.edu](mailto:sherry.conatser@vanderbilt.edu).

## TRIAD Welcomes New Psychologist

We are delighted to announce that TRIAD has hired a new psychologist to enhance and expand our clinical, research, and training activities. Dr. Zachary Warren is a clinical psychologist who received his PhD from the University of Miami in 2005. He completed a predoctoral internship at Children's Hospital-Boston and a postdoctoral fellowship at the Medical University of South Carolina. Dr. Warren's clinical and research interests include the areas of early identification and intervention for children with autism spectrum disorders. His work places special emphasis on providing families with cutting-edge assessment services as well as facilitating high quality, long-term support. He will be directing PSEP.



## IMPORTANT NOTE

**We will begin sending these newsletters via email instead of snail-mail in 2007. If you want to continue receiving our newsletter, please send your email address to: [TRIAD@Vanderbilt.edu](mailto:TRIAD@Vanderbilt.edu) and write "Newsletter" in the subject line. Thanks!!**