



# Penridge Pediatric Associates

## Pointers and Pearls

Summer 2005

### **SLEEP ACROSS THE (pediatric) AGES.**

This issue of our newsletter is devoted to an issue that occurs throughout childhood and adolescence – sleep problems.

**Sleep problems in infants and toddlers.** Newborn infants have irregular sleep cycles, which take about six months to mature. While newborns sleep an average of 16 to 17 hours per day, they may only sleep one or two hours at a time. As they get older, the total number of hours they need for sleep decreases and they begin to sleep for longer periods of time. However, children have different patterns. It is normal for a 6-month-old to wake up briefly during the night, but these awakenings should only last a few minutes and children should be able to go back to sleep easily on their own.

About 25% of 5 month old infants do not sleep 6 hours in a row at night; and about 10% of 1½ and 2½ year old children don't sleep 6 hours in a row. Of the children who don't sleep 6 consecutive hours at 5 months or 1½ years of age, 33% are still not sleeping 6 hours at 2½.

About 10% of 10 month old babies wake 3 or more times per night, 8% take an hour or more to settle after waking. About 18% of babies have at least one of these problems.

The factors most strongly associated with not sleeping well at night are feeding the child after an awakening, being rocked or held until they are asleep, a parent staying with them until they were asleep or allowing them to come into a parent's bed. Breastfeeding and sharing a bed or room with a parent or sibling were also associated with poor sleeping.

### **Bed sharing**

Several studies have shown that more than half of the children who sleep with their parents resist going to bed and awaken several times during the night. Most parents who share their beds have to lie down with their child for as long as 30 to 60 minutes to get them to sleep. Most of these parents don't get a good night's sleep and become sleep deprived. Sleeping with your child is a bad choice if you are a light sleeper and you need your sleep



to work well during the day.

### **Sleep problems in early childhood**

At 3 years of age, roughly 30% of children have difficulty getting to bed, falling asleep or staying asleep. Of children with a sleep problem at 8 months of age, about 40% still had a problem at 3 years of age, whereas only 25% of children without a problem at 8 months of age had a problem at 3 years. Children with persistent sleep problems were more likely to have behavior problems, than were children without persistent sleep problems.

Sleep problems occur in about 10% of children 4-12 years of age. The best predictor of sleep problems in this age group is a history of sleep problems before age 2. Taking excessive time to fall asleep and bedtime resistance are the most

common problems (about 40%).

Night waking (6%), morning wake-up problems (17%), and fatigue (17%) are also common. Sleep delay correlate with fears, night waking, the need for reassurance, parent being near, and a history of sleep problems. Bedtime resistance was associated with an inconsistent bedtime and falling asleep away from bed.

### **Sleep problems in preadolescents**

Roughly 25% of children 8-11 years of age sleep poorly. At some time during this age period sleep problems lasting more than 6 months were present in 43% of the children. In 14%, the time to fall asleep was longer than 30 minutes, and more than 1 awakening occurred during the night at least 2 nights per week. School achievement difficulties were encountered more often among the poor sleepers than among the children without sleep problems.

### **Children who wake early.**

Most of these children have had enough of sleep. They may have been put to bed too early the night before, had too many naps, had naps that were too long, or may not need as much sleep as most children. Some children may begin waking early in the spring because sunlight streams through their windows.

### **Sleep problems in adolescents**

There are many changes in sleep patterns during adolescence. These include decreased sleep duration with increasing age, a delay in bedtime and wake time (except on school mornings), and an increasingly large discrepancy between school-night and weekend sleep patterns. Adolescents, who still need an average of 9 to 10 hours of sleep per

night, go to bed later on school and non-school nights, with the magnitude of the delay greater on non-school nights. Wakening time on non-school days also gets later and this tendency increases as they age. Sixty-two percent of the students in 9th grade and less than half the students in 10th grade get an average of as much as 7 hours of sleep on school nights. Excessive daytime sleepiness in adolescents is a widespread problem and can have major negative effects on school performance, mood, and safety (excessive sleepiness has been associated with an increased incidence of automobile accidents). Adolescents with higher grades have longer and more regular sleep/wake schedules; they get more total sleep and have earlier bedtimes on school nights than students with lower grades. Adolescents who have difficulty waking up are less motivated to do their best at school, whereas children with higher-quality sleep and who feel more rested are more receptive to teacher influence and have a more positive image of themselves as students. When excessively sleepy, individuals may begin tasks well, but as time on tasks continues, performance decreases. Sleepy individuals may increasingly neglect activities thought to be nonessential. High levels of

sleepiness impair complex performance, leading to lapses in attention, slowing of reactions, mental mistakes, and memory errors. When schools change their high school start time from 7:15 AM to 8:40 AM students sleep, on average, 60 more minutes school nights. Attendance rates increase, the percentage of students who are continuously enrolled increases, and dropout rates decrease. Another major influence on sleep patterns of high school students is the number of hours they spend working for pay. Students who work 20 or more hours per week report going to bed later at night, sleeping fewer hours per night, oversleeping more in the morning, and falling asleep more in class than those who do not work or who work fewer than 20 hours/wk. **Bottom line (almost)** – sleep problems may have negative consequences. They are best avoided or, if they occur, addressed early. If your child is having sleep problems please talk with us. Below are the names of a few books that may help. *How to Get Your Baby to Sleep*; William Sears; Little Brown, 2001 *How You Can Be Boss of Bedtime: No More Bedtime Fears & Tantrums: A Guide to a Good Night's Sleep For Parents and Kids*; Janet Hall; Inkolour Printing, 1998 *In Search of Sleep: Straight Talk About Babies, Toddlers, and Night Waking*;

Bonny Richert; Sarasota Press, 2001 *Is My Child Overtired? The Sleep Solution for Raising Happier, Healthier Children*; William Wilkoff; Simon & Schuster, 2000 *Nighttime Parenting: How to Get Your Baby and Child To Sleep*; William Sears; Plume, 1999 *Sleeping Like a Baby: A Sensitive and Sensible Approach to Solving Your Child's Sleep Problems*; Avi Sadeh, Yale University Press, 2001 *Sleeping Through the Night: How Infants, Toddlers, and Their Parents Can Get a Good Night's Sleep*; Jodi A. Mindell; HarperCollins, 1997

### Studies

Many of you are aware of the new meningococcal vaccine now being recommended beginning at age 11. In the fall we may be doing a study with a combined HIB/meningococcal vaccine for 12-15 month old children. Hopefully we will be able to extend the benefits of these vaccines to younger children.

Another possible study is flu vaccine at 2 months instead of 6 months.

### From the Secretaries

There is a \$5 charge for co-pays not made at the time of the visit, so..... Except when done at the time of a check-up there is a \$10 charge for completing forms, so....

During the summer months drop off and pick up forms and referrals on the sick side. Winter months on the well side.

Below is a table of average (there is a very wide variation) sleep duration at different ages.

Age (years)	Average Total Sleep Duration	Average Nighttime Sleep Duration	Average Daytime Sleep Duration	% of Children Taking Daytime Nap
0.5	14.2	11	3.4	100
0.75	13.9	11.2	2.8	100
1	13.9	11.7	2.4	100
1.5	13.6	11.6	2.0	96
2	13.2	11.5	1.8	87
3	12.5	11.4	1.7	50
4	11.8	11.2	1.5	35
5	11.4	11.1		8
6	11.0	10.9		5
7	10.6	10.7		1
8	10.4	10.4		
10	9.9	9.9		
12	9.3	9.3		
14	8.7	8.6		
16	8.1	7.9		