



# Strategies to Improve Your Child's Sleep

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# Agenda

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- 10:00 – 10:30 Overview of Common Sleep Problems
- 10:30 – 11:00 Assessing/Identifying Sleep Problems
- 11:00 – 11:45 Strategies for Better Sleep: Part 1
- 11:45 – 12:15 Lunch
- 12:15 – 1:00 Strategies for Better Sleep: Part 2
- 1:00 – 1:45 Individual Sleep Strategy Plans
- 1:45 – 2:00 Wrap Up and Questions

# Importance of Sleep

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- Refreshes body and mind
- Important for learning and memory (brain processes info during sleep)
- Helps to prevent illness
- Promotes adaptability/flexibility and positive mood
- Not enough sleep is associated with behavior problems, attention problems, and poor school performance

# How Much Sleep Does my Child Need?

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- Sleep needs vary among people, but our own needs remain fairly constant
- Age is one determining factor: total sleep time declines as we age
- Average 2 year old needs a total of 12 hours/day; average 13 year old needs a total of 8 hours.
- Handout: Ave # hours/sleep needed by age

# How Much Sleep Does my Child Need?

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- Age is a good predictor, however individuals differ in amount needed
- Your child is likely getting enough sleep if they:
  - ❖ Can fall asleep within 15-30 minutes
  - ❖ Can wake up easily in the morning
  - ❖ Are awake and alert all day, and don't need a nap during the day

# How Much Sleep Does my Child Need?

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- Likewise, your child may not be getting enough sleep if:
  - ❖ He regularly falls asleep in the car
  - ❖ You need to wake him up almost every morning
  - ❖ He seems overtired, cranky, irritable, aggressive, overly-emotional, or hyperactive
  - ❖ He “crashes” much earlier than usual some nights

# Developmental Changes and Sleep

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- We need less sleep as we grow older
- Certain individuals are “light-sleepers”
- Child’s personality may also influence sleep patterns
- Caregiver reactions may worsen sleep issues

*We know that we can change at least one of these factors: adults’ reactions.*

# Reducing Naps

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- During preschool years it is recommended that naps be reduced in duration.
- At age 2, children should be able to have an active morning without a nap but take an afternoon nap.
- Between the ages of 3-6, most children no longer need an afternoon nap.
- If your child's napping is interfering with nighttime sleep, then it might be time to fade the daytime naps.

# Occurrence of Sleep Disturbances

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- 69% of children ages 10 and under experience sleep issues
- 80% of parents of children with developmental disabilities report some problem with their child's sleep; 25% describe the problem as being *severe*
- Individuals with autism seem to be the most seriously affected; almost all individuals with autism experience difficulty with sleep at some point in their lives

# Common Sleep Problems amongst Children with Special Needs

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- ❖ Insomnia
- ❖ Difficulty Initiating Sleep
- ❖ Difficulty Maintaining Sleep
- ❖ Hypersomnia and Narcolepsy
- ❖ Breathing-Related Sleep Problems
- ❖ Sleep Schedule Problems
- ❖ Nightmares
- ❖ Sleep Terrors
- ❖ Sleepwalking and Sleeptalking
- ❖ Periodic Limb Movements
- ❖ Bedwetting
- ❖ Tooth Grinding
- ❖ Rhythmic Movement Problems

# Assessing and Identifying Sleep Problems

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- If individuals have different sleep needs, how do I know if my child's sleep patterns are a problem or a normal difference?
  - ❖ Look at functioning during the day (mood, irritability)
  - ❖ How disturbing/consistent is the sleep issue at night? (e.g., if child screams/ protests regularly for 20+ minutes when being put to bed or if night-waking occurs routinely in a disruptive fashion this may signal a problem with sleep.
  - ❖ *If your child's sleep pattern adversely affects him or her or your family in any significant way, then assume that the issue warrants attention.*
  - ❖ **COMPLETE SLEEP QUESTIONNAIRE**

# Sleep Diary

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- Provides yourself and sleep professional with important information related to child's length of sleep, patterns of sleep, what happens at problem times, etc.
- Keep a sleep diary for at least 1 week
- Info must be recorded daily to ensure accuracy

# Components of Sleep Diary

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- Day
- Time child was put to bed
- Time child fell asleep
- Night-time waking (time/how long)
- Description of night-time waking
- Time awoke in morning
- Describe naps

*SAMPLES*

# Behavior Log

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- Provides important info to supplement sleep diary
- Components:
  - ❖ Date
  - ❖ Time (bedtime or middle of night)
  - ❖ Description of behavior
  - ❖ How you responded to the behavior

*SAMPLE*

# Strategies for Better Sleep: Part 1

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## EXERCISE:

- ❖ Provide regular opportunities
- ❖ Timing: Aerobic activity for 20+ minutes raises the body's temperature and should occur ideally ~4-6 hours before bedtime (activity just before sleep can be counterproductive)
- ❖ Exercise that occurs more than 6 hours before sleep may not have direct effect, however in general, being physically fit is related to better sleep
- **BED = SLEEPING**
  - ❖ Restrict activities on the bed to only sleeping

# Strategies for Better Sleep: Part 1

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- **ENVIRONMENTAL INVENTORY**
  - ❖ Consider qualities of child's bedroom
    - Can you hear TV noise? Dishwasher? Conversations?
    - Is there light from the hallway? Window?
    - Temperature: too cold or too warm?
- **PROMOTE GOOD "SLEEP HABITS"**
  - ❖ Maintain regular bedtimes and awakening times
  - ❖ Maintain bedtime routine

# Strategies for Better Sleep: Part 1

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- DIET:
  - ❖ Avoid big meals close to bedtime.
  - ❖ Avoid foods in evening that might cause an upset stomach or heartburn
  - ❖ Avoid caffeine within 6 hours before bedtime (e.g., certain soft drinks, chocolate, certain medications)
  - ❖ Some protein-rich foods may help induce sleep (e.g., milk, cheese, eggs, meats)
  - ❖ Some vitamins and mineral supplement may improve sleep

# Bedtime Difficulties

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- Bedtime “Battles”
  - ❖ Some children put up hefty resistance at bedtime; tantrums can be very upsetting to other family members
- Various reasons why child may not want to go to bed.
  - ❖ Maintaining consequences
  - ❖ Not needing as much sleep (if they stay up late, then want to sleep late in the morning, wake up 10 – 30 min earlier every a.m. until they are falling asleep at the time that you want at night)

# Bedtime Difficulties

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- Separation Anxiety
  - Common reason for children under 3 to cry at night
  - Provide child with a transitional object so that when they wake up they will feel comforted and will fall back asleep
  - Transitional object should be a preferred item such as a doll, stuffed animal, book, special pillow or blanket

# Bedtime Difficulties

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- Use a simple, regular bedtime routine.
  - Brief
  - Several simple, quiet activities such as a light snack, bath, cuddling or back rub, a story or lullaby and saying goodnight.
  - Lights out, time for sleep
  - Deal with attempts to delay bedtime by calmly but firmly ignoring protests

# Bedtime Difficulties

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- Avoid soothing child by putting them to bed with a bottle of juice, milk or formula.
- Avoid giving child any food or drink items that contain caffeine
- Avoid filling up child's bed with toys (distracting and associated with playtime)
- Limit TV time before bedtime

# Bedtime Difficulties

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- If child continually gets up and leaves bedroom
  - ❖ Be strict about the rule of not leaving the bedroom
  - ❖ Quickly return child to room and remind him that he has to sleep in his own bed
  - ❖ Ignore protests and keep interactions to a minimum (no hug or kisses this time)
  - ❖ Consider keeping door open when child stays in bed, but closed if child gets out of bed. As soon as child returns to bed, re-open door a crack.
  - ❖ “Bedtime Pass”
    - File card with the child’s name printed at the top.
    - The pass can be exchanged for one short visit outside the bedroom per evening

# Bedtime Difficulties

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- Co-Sleeping (Parents' Bed)
  - ❖ May be difficult to transition child to own bed
  - ❖ Creates a sleep-onset association
  - ❖ May cause conflict between parents

# Bedtime Difficulties

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## Child Cries/Screams in Bed

- 2 Strategies: Graduated Extinction and Bedtime Fading
  - ❖ Both can be successful in reducing and eliminating bedtime difficulties.
  - ❖ Pros and Cons to each

# Bedtime Difficulties

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## Graduated Extinction (“Ferber method”)

*Involves spending increasingly longer amounts of time ignoring the cries and protests of a child at bedtime. This is a variation of “Extinction” where parents simply ignore the crying and many families find this approach more acceptable.*

# Plan for Graduated Extinction

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1. Establish a bedtime routine.
2. Agree on a bedtime and stick to it!
3. Determine how long you feel comfortable waiting before checking on your child.
4. Pick a night to begin the plan, assuming that no one will get a good night's sleep that night (e.g., Friday)

# Plan for Graduated Extinction

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5. On the first night, put child to bed, leave the room, then wait until the agreed upon amount of time (e.g., 4 min). After 4 min if your child is still crying, go into the room, tell him or her to go back to bed, and leave.

***DO NOT PICK UP CHILD, DO NOT GIVE FOOD OR DRINK AND DO NOT ENGAGE IN EXTENSIVE CONVERSATION***

6. Wait another 4 minutes. Go back into the room if your child is still crying. Tell child to go back to sleep and leave.

# Plan for Graduated Extinction

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7. Continue this pattern until your child has fallen asleep.
8. On each subsequent night, extend the time between visits by 2 or 3 minutes. Continue to use the same procedure when entering the bedroom.

# An Alternative to Graduated Extinction: Bedtime Fading

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- Child may be so disruptive that parent cannot allow the child to tantrum for too long (e.g., throwing, breaking toys or furniture; waking family/neighbors).
- Bedtime Fading involves keeping a child up LATER than usual (so late that he/she falls asleep on own). E.g., if bedtime is 8pm, but your child resists at this time, temporarily make bedtime 10:30 pm. At this point, child may be so tired that he/she will go to bed without resistance.
- If the new bedtime is successful, you can begin to FADE back bedtime in small increments until the bedtime at which you want your child to fall asleep is achieved.

# Plan for Bedtime Fading

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1. Select a bedtime when your child is likely to fall asleep with little difficulty and within about 15 min (consult sleep diary to find a time when your child falls asleep when left alone, then add 30 min to this time)
2. If child falls asleep within 15 min of being put to bed at this new bedtime and without resistance for 2 consecutive nights, then move back bedtime by 15 minutes. (e.g., from 10:30 to 10:15)
3. Keep child awake until new bedtime *even if he/she seems sleepy*.
4. If child does not fall asleep within 15 minutes, have him/her leave the bedroom and extend the bedtime for 1 hour more.
5. Continue to move back the bedtime until the desired bedtime is reached.

# Night-Wakings

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- 2 categories
  - ❖ Children who wake-up but are not disruptive (lie in bed and play with toys, wander around house)
  - ❖ Children whose waking includes crying or tantrums
- Causes
  - ❖ “Light-sleeper”
  - ❖ Consequences maintaining crying upon waking (e.g., picking up child to comfort)

# Treating Non-Disruptive Night Wakings

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- First, consider:
  - ❖ Is bedtime consistent or variable?
  - ❖ Is child getting enough total sleep? (sleep chart based on age norms as well as child's daytime behavior)
  - ❖ Is child napping during day?

# Treating Non-Disruptive Night Wakings

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- Maintain consistent bedtime/awakening times
- Do not allow child to sleep in parents' bed – be firm
- When you hear your child wake up, lead child back to his/her room and say “It’s still time to sleep. Go back to bed.” *Keep physical contact and conversation to minimum.*

# Treating Non-Disruptive Night Wakings

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- And if the problem persists?
- Consider Sleep “Restriction” plan to make the time in bed really count
  - ❖ Use the sleep diary to estimate the ave # hours your child sleeps per night
  - ❖ Multiply ave # by .9 to get 90% of the time. This represents # hours your child should be sleeping with new schedule. Do not allow for fewer than 4 hours of sleep when selecting a new sleep schedule.
  - ❖ Adjust child’s bedtime or awakening time to approx the new schedule (e.g., instead of waking up at 7:30, wake at 6:30).
  - ❖ Once night-time wakings are significantly reduced for 1 week, readjust bedtime schedule by 15 min once each week (back towards former schedule) until desired schedule is reached.

# Dangerous Night Wakings

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- Some children may not tantrum, but may quietly get out of bed and get into trouble unless closely monitored (break things, injure themselves)
- “Dutch” (half) doors, peep holes, bell on door, alarm system
- If parent knows time when child leaves room, “graduated extinction” or “scheduled awakenings” can be used to treat.

# Disruptive Night Waking

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- For children who cry, scream, tantrum or other-wise disrupt others' sleep
  - ❖ Graduated Extinction
    - Involves waiting for progressively longer periods of time before checking on child in the middle of the night after an awakening.
  - ❖ Sleep Restriction
  - ❖ Scheduled Awakening

# Scheduled Awakening

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- Useful with children who awaken at fairly predictable times. (If your child wakes at very different times each night – e.g., 3am, 12am, 4am try a sleep restriction intervention first.)
- Involves waking your child in the period before he/she typically awakens
- Touch or shake child lightly until he/she seems awake, then you let him/her fall back asleep.
- Simple and can be very effective at quickly eliminating night wakings
- Works by interrupting a disrupted sleep-wake cycle and by giving the child practice in learning to fall back asleep.

# Scheduled Awakening

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- How to implement:
  - ❖ Use sleep diary to find patterns of waking
  - ❖ Once the waking time is determined, awaken child ~30 min prior to this time (e.g., if child typically wakes at 1:30, wake at 1:00). If there is a range of times, awaken 30 min prior to the earliest time.
  - ❖ Do not fully awaken child. Gently touch/talk to child until he/she opens eyes, then let fall back asleep.
  - ❖ Alter this time if needed based on child's reaction.
    - This plan works best if child does not fully awaken but just opens eyes briefly and then goes back to sleep.
    - If your child wakes up fully move "back" your scheduled awakening time by 15 min (e.g., if 1:00, then 12:45)

*Works quickly but may be difficult for parents to commit to waking themselves up early. Avoiding disruptive sleep wakings will be worth the temporary inconvenience!!!*

# Poll

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What do you feel is your child's primary sleep issue?

- ❖ Bedtime
- ❖ Night-wakings
- ❖ Other

# Sleeping at the Wrong Times

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- Delayed Sleep Phase Syndrome (e.g., wants to sleep from 3am – 9am)
  - Strategy: Chronotherapy
    - ◆ Involves keeping the person awake later and later on successive nights until he/she achieves the new sleep schedule. Keep up later by 3 hours/night such that sleep pattern advances through the day and keep schedule until desired bedtime is achieved.
  - Bright Light Therapy

# Parasomnias

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- Disruptive sleep-related events, usually not too serious
  - ❖ Nightmares
  - ❖ Sleep/Night Terrors
  - ❖ Sleepwalking / Sleepwalking
  - ❖ Restless Legs Syndrome
  - ❖ Periodic Limb Movements
  - ❖ Bedwetting
  - ❖ Tooth Grinding

# Nightmares, Sleep Terrors, and Other Issues

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- Nightmares: If a child has a bad dream, he or she may wake up in a sweat, crying. *Ends with child waking up.*
- Sleep Terror: Resembles nightmare but child screams in a terrified way and is inconsolable. *Child is still asleep.*

# Nightmares, Sleep Terrors, and Other Issues

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- Nightmares: If a child has a bad dream, he or she may wake up in a sweat, crying. *Ends with child waking up.*
- Sleep Terror: Resembles nightmare but child screams in a terrified way and is inconsolable. *Child is still asleep.*

# Nightmares, Sleep Terrors, and Other Issues

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- How should we respond to nightmares?
  - ❖ Before bedtime, give child something that he believes will protect him – gives a sense of control to help cope with distressful dreams
  - ❖ Gently lay child back down and say, “Go back to sleep now, everything’s OK.” May stroke hair or back but avoid talking too much about it.
  - ❖ Night-light
  - ❖ Avoid TV at least 1 hour before bedtime
  - ❖ Avoid scary bedtime stories

# Nightmares, Sleep Terrors, and Other Issues

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- How should we respond to sleep terrors?
  - ❖ You will not be able to comfort child in the moment as child is still asleep.
  - ❖ Try not to disturb your child but stay near them and make sure that they don't hurt themselves.
  - ❖ More sleep
    - Terrors occur during REM and stage 3/4 sleep. When we are sleep deprived we have more REM sleep.
    - Extend night sleep or nap during day
  - ❖ Scheduled awakenings: may be useful with children who have a history of sleep terrors
    - Wake up child 30 min prior to typical terror onset and follow instructions previously noted
    - Remember, these are faded out over several weeks, so they do not need to be a long-term burden

# Sleepwalking and Sleepwalking

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- May be brief or may continue 30+ min
- It's ok to wake up a person who is sleep walking
- Causes may include anxiety, lack of sleep, and fatigue; also linked to seizure disorders
- Ensure child is fully rested
- Ensure sources of anxiety are addressed
- Consider implementing “scheduled awakenings” (*effective 80% of the time*)

# Excessive Sleepiness

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- Hypersomnia: Child falls asleep several times during the day despite getting enough sleep each night.
  - ❖ Contact Sleep Center regarding medication and alternatives
- Narcolepsy: Child experiences sudden loss of muscle tone / involuntary sleep attack
  - ❖ Contact Sleep Center

# Movement Related Sleep Issues

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- Periodic Limb Movements
  - ❖ Episodes of leg and sometimes arm movements that occur during sleep
  - ❖ May occur for a few minutes or a few hours
  - ❖ If occur often enough, child's sleep may be disrupted such that they feel tired the next day
  - ❖ No treatment necessary unless interfering with sleep
  - ❖ Some parents report finding it helpful to talk with a pediatrician about medication or vitamin and mineral supplements

# Movement Related Sleep Issues

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- Restless Legs Syndrome
  - ❖ Feeling of crawling, pulling, or tingling beneath the skin of legs – very uncomfortable
  - ❖ Onset typically occurs when child relaxes, so disruptive to falling asleep
  - ❖ Often coexists with periodic limb movements (If PLM, often RLS)
  - ❖ Consult with Sleep Center or physician

# Movement Related Sleep Issues

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- Rhythmic Movement Disorder
  - ❖ Child rocks back and forth in bed before falling asleep; sometimes involves head-banging
  - ❖ Seems to “soothe” child into falling asleep
  - ❖ Fairly common amongst infants and toddlers
  - ❖ What to do?
    - Prevent rocking/banging from occurring
      - ◆ Padding
      - ◆ Sit with child for several nights and prevent from banging/tell to stop when it occurs; otherwise do not talk to child
      - ◆ Place preferred stuffed animal in bed with child

# Bedwetting

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- Limit amount of liquid intake in the evening
- Wake child to use bathroom before parent goes to bed
- Urine alarm – alerts parent who then can direct the child to finish peeing in the toilet
- Retention Control Training

# Bedwetting

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- “Dry bed training”
  - ❖ 1<sup>st</sup> night: Awaken child each hour during the night and bring to bathroom. Child pees and is given a drink of water and asked to “hold it in”.
  - ❖ 2<sup>nd</sup> night: Awaken child just 1x – 3 hours after gone to bed. Again, have pee and give drink before returning to bed.
  - ❖ Subsequent nights: For each night that the child stays dry, move back the waking time by 30 minutes until it reaches one hour after bedtime.
  - ❖ Use “positive practice” when accidents occur.
  - ❖ If child wets bed during the night, have him change his clothes and sheets

# Anxiety

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- Relaxation techniques
- “Reverse psychology”: sometimes useful for children who are anxious about not being able to sleep (encourage child to remain awake w/o moving around too much or opening eyes)

# Teeth Grinding

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- May cause dental problems, jaw pain and headaches
- Try to identify/address possible sources of stress
- Consult with dentist about mouth guard

# Breathing Problems

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- Snoring
- Sleep Apnea
  - ❖ Short pauses in the breathing pattern
  - ❖ Cause of obstructive sleep apnea is often enlarged tonsils or adenoids that block the upper airway
  - ❖ Diagnosis is made in a pediatric sleep lab

# Medication

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- If Sleep Strategies prove ineffective, consider speaking with pediatrician
- **DO NOT CHANGE MORE THAN 1 THING A TIME.** Wait to see if sleep strategy (such as Graduated Extinction) is effective alone before adding medication component.

# Re-Emergence of Sleep Disturbances

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- Often return in future (months or years later)
- Not surprising, since individuals with sleep disturbances seem to be biologically predisposed to be “light-sleepers”.
- Issues sometimes re-emerge after a vacation, illness, or other change that disrupts sleep pattern (e.g., trip to Grandmas or “Sunday Night Syndrome” if child stayed up later during weekend)

# Multiple Sleep Difficulties

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- Some children experience both bedtime AND night-waking problems
- How to decide which issue to address first?
  - ❖ Research study by Dr. Jodi Mindell:
    - Treat bedtime issues first and 78% of children did not need separate intervention for night-waking
    - Treatment of night-waking first seems to have no effect on bedtime related issues.
    - Conclusion: Focus on BEDTIME problems before night-waking problems

# Individual Sleep Strategy Plans

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# Wrap-Up & Questions

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# Book Recommendation

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Much of this presentation is based on strategies outlined in the book *Sleep Better! A Guide to Improving Sleep for Children with Special Needs*. The author, Dr. Mark Durand, is a professor and chair of the Dept of Psychology at the University at Albany, State University of New York.

# Resources

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- Accredited Sleep Disorders Centers in CA
  - ❖ CA Center for Sleep Disorders, Oakland 510-834-8333
  - ❖ Sleep Disorders Center, Los Gatos 408-341-2080
  - ❖ Sleep Disorders Center, Sequoia Hospital, Redwood City 415-367-5137
  - ❖ Sleep Disorders Center, CA Pacific Medical Center, San Francisco 415-923-3336
  - ❖ Sleep Disorders Clinic, Stanford University 415-723-6601

# References

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- Books

- ❖ *Sleep Better! A Guide to Improving Sleep for Children with Special Needs*, V. Mark Durand, 1998.

- Websites

- ❖ <http://www.med.umich.edu/1libr/yourchild/sleep.htm>
- ❖ <http://aacap.org>
- ❖ <http://aafp.org>
- ❖ [www.talkaboutsleee.com/sleep-disorders/archives](http://www.talkaboutsleee.com/sleep-disorders/archives)
- ❖ [www.sleepfoundation.org](http://www.sleepfoundation.org)

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