Z Z The Mystery of Sleep





The Mystery of Sleep

- Why- still remains a mystery
- We sleep less now
- Sleep problems are common
- Sleep problems are preventable
- Sleep problems are highly treatable
- Sleep affects every aspect of our health



The Effects of Sleep Deprivation

- Irritability -
- Cognitive impairment
- Memory lapses or loss
- Impaired moral judgement
- Severe yawning
- Hallucinations
- Symptoms similar to ADHD
- Impaired immune system
- Risk of diabetes Type 2

- Increased heart rate variability
 Risk of heart disease
 - Increased reaction time
 - Decreased accuracy
 - Tremors
 - Aches
 - Other:
 - Growth suppression
 - Risk of obesity
 - Decreased temperature



Ghrelin and Leptin Imbalance

Enough Sleep



LOW GHRELIN LEVELS✤ Normal Appetite.

HIGH LEPTIN ↔ Satisfied after eating.

Not Enough Sleep



HIGH GHRELIN LEVELS ↔ Feel Hungry.

LOW LEPTIN
 Unsatisfied after eating a nutritious meal.



Factors that might Impact Sleep



Autism/ASD

Often have a high rate of sleep disturbance:

- Settling Problems
- Night Waking
- "Social Cueing" Problems
- Irregular Melatonin Secretion
- Sensory Issues
- Bedtime Drinks/Food
- Anxiety



Management

- Sleep Diary & Sleep History
- Check Environmental factors: lights, sound, smell, distraction
- Establish a routine which includes visual cues
- Social Stories

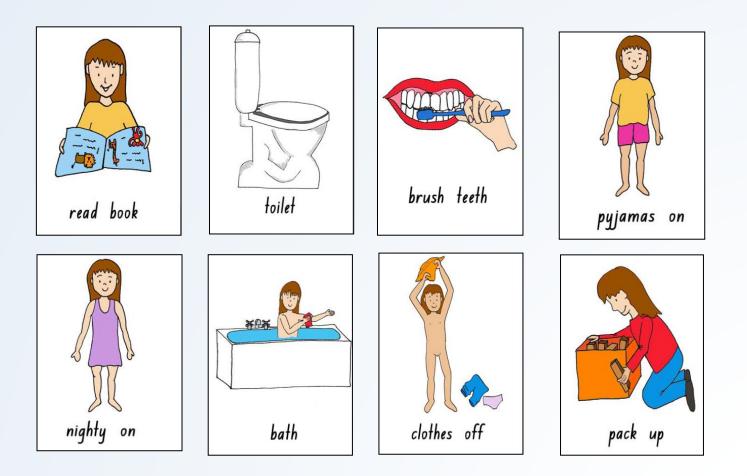


Management

- Relaxation/Massage: Lavender in Bath, Quiet Time, Music
- Gradual Retreat Technique
- White Noise
- May need melatonin supplement alongside behaviour modification



Visual Aids for learning.com





ADHD Sleep Facts

- ✤ Affects 5–10% population
- Symptoms similar to sleep deprivation: Lack of Focus, daydreaming, Fidgeting, Emotional Turmoil
- Restless Leg Syndrome (RSL)
- Anxiety Problems
- Melatonin Secretion Delayed (Van der Heijden et al 2005)



ADHD Sleep Problems

- Evening behaviour particularly difficult
- Parents exhausted- boundary setting
- Delayed Sleep Onset
- Difficulty Staying Asleep
- Sleep Associations- Parental Presence
- Restless leg syndrome
- Snoring



ADHD Management

- Sleep Diary & History esp. bedtime behaviour
- Sleep Hygiene
- Education of Parents
- Treat medical conditions- OSA/RLS
- Meds in some cases- melatonin supplement



ADHD Management

Sustainable Sleep Programmes:

- Delayed Sleep Phase
- Gradual Retreat
- Anxiety Sleep Management Programme
- Reward Systems
- White Noise



Sleep Apnoea

- 3% UK Children have OSA (British Lung Foundation)
- Higher in 3 to 7 year olds
- ✤ 1:10 Snorers have OSA
- Commonly caused by enlarged tonsils & adenoids
- Made worse if child is over weight
- ✤ 50%-80% of Downs Syndrome Children
- Small upper airway and floppy muscle tone
- Developing brain can be affected by reduced oxygen levels

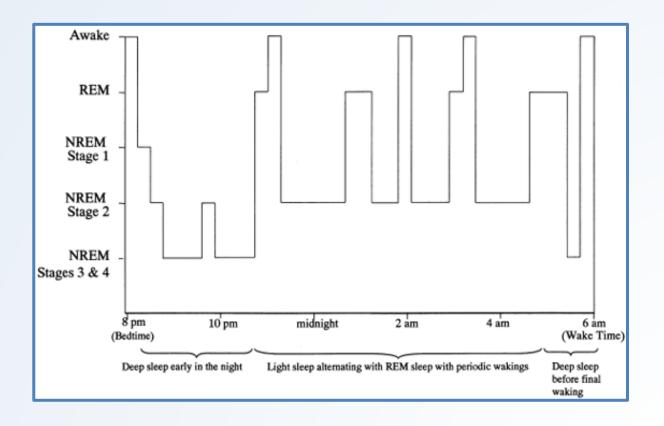


Symptoms to look for with OSA

- Snoring
- Breathing pauses during sleep- Disturbs Sleep
- Mouth & Noisy Breathing
- Restless Sweaty Sleep
- Morning Headaches
- Nasal Speech
- Daytime Sleepiness & Napping
- Behaviour Problems
- Academic Problems
- Sleep Enuresis (over 6 years old)



Typical Sleep Stage Progression





Inappropriate Sleep Associations

- One of the most common sleep problems
- Child learns to fall asleep with certain conditions present at bedtime
- Child will wake if associations not present during the night when they rouse
- Child needs to be taught to fall asleep independently
- Can cause frequent night waking



Anxiety & Sleep

- Unresolved Long Term Sleep Issues
- Separation Anxiety
- Family Breakdown/Bereavement
- Safeguarding
- Friendship Issues
- School Pressures/New School
- Nightmares
- Fear of the dark/Monsters
- Worrywarts



Anxiety & Sleep

Can result in:

- Bedtime Battles
- Difficulties Falling Asleep
- Late sleep Phase
- Inappropriate Sleep Associations
- Night Waking



Managing Anxiety

- Thorough assessment of what might be the cause
- Talk about worries in the day & not at bedtime
- Seek Professional Help
- Play Hide & Seek in the dark with torches
- Avoid Scary Books/TV



Managing Anxiety

- Winding Down Bedtime Routine
- Set Limits at Bedtime
- Relaxation Technique/Bedtime Massage
- Late Sleep Phase Programme may be appropriate
- Gradual Retreat Programme
- Security Object
- Nightlight



Bedtime Routine

- Bedtime Routine is the anchor of Pre Sleep Techniques
- It introduces cues for Sleep
- Regulates the body clock
- It's never too late to introduce a Bedtime Routine
- The Bedtime Routine should last no longer than 45 minutes



Example of a Bedtime Routine for a 7 Year Old with Settling Problems

- ✤ Aim for 10.5 hours of sleep form 8:30pm-7am
- ✤ 7:45pm, start bedtime routine. Keep routine calm
- Prepare bedroom so it is dimly lit
- Run a bath and have a 5 minute warm, quiet δ relaxing bath
- Go straight into the bedroom from the bathroom
- Dry, into pyjamas & read stories & leave to read
- ✤ 8:15pm cuddle & kiss goodnight and lights out
- Aim for child to be asleep by 8.30pm



Gradual Retreat Method

- This is a gradual method based on the idea of parents distancing themselves from the child little by little until they no longer require their parents presence to fall asleep
- Parents adopt different degrees of physical closeness in order to help child get to sleep
- The aim of the technique is to keep moving onto next degree of physical separation until parents are out of the room



Gradual Retreat

Suitable for:

- All ages to teens
- Building confidence
- Anxiety issues related to sleep δ separation
- Parents who want a gentle/slow approach
- Room sharing siblings



Gradual Retreat

Parents adopt different degrees of physical closeness e.g.:

- 1. Lie on top of the bed covers
- 2. Sit up on the bed
- 3. Sit with feet over the edge of the bed
- 4. Kneel on a cushion next to the bed holding hand
- 5. Move cushion a foot back from bedside
- 6. Move half way to the door
- 7. Move just inside the door
- 8. Move just outside the door
- 9. Move along landing



Gradual Retreat

- Every 4th night move to the next degree of separation
- Parents aim to resist pleas to return to their previous position
- Make sure their child is fully asleep before leaving the room
- Continue to move away until parents are in their own room
- Can be used with a reward system



Delayed Sleep Phase

- The child goes to sleep late, sleeps well throughout the night & wakes up late in the morning
- Parents view it as a battle at bedtime & the morning
- Children can become anxious as aware they can't fall asleep
- Tired when woken for school
- Sleep in late at weekends/holidays



Delayed Sleep Phase

Can be due to:

- Lack of bedtime routine δ boundaries
- After the school holidays
- After an illness
- Untreated sleep issue as a younger child
- Anxiety/Stress
- Inappropriate Sleep Associations



Delayed Sleep Phase- Management

- Record a sleep diary for a week- note the time the child falls asleep
- Bedtime routine adjusted so child learns to fall asleep within 15 minutes of their natural latest sleep time
- ✤ Bedtime routine & sleep time slowly shifted earlier
- Child must be woken every morning at the same time
- Process repeated until appropriate sleeping time reached



Delayed Sleep Phase Chart

Steps: Wake up by 7am	Start Routine:	Lights Out:	Asleep By:
Step 1	10:15pm	10:45pm	11:00pm
Step 2	10:00 pm	10:30pm	10:45pm
Step 3	9:45pm	10:15pm	10:30pm
Step 4	9:30pm	10:00pm	10:15pm
Step 5	9:15pm	9:45pm	10:00pm
Step 6	9:00pm	9:30pm	9:45pm
Step 7	8:45pm	9:15pm	9:30pm
Step 8	8:30pm	9:00pm	9:15pm
Step 9	8:15pm	8:45pm	9:00pm
Step 10	8:00pm	8:30pm	8:45pm
Step 11	7:45pm	8:15pm	8:30pm



Up With The Larks

- Technique for early rising
- Lamp in child's room, linked to a timer switch & low watt bulb
- Set at earliest natural waking time
- Use with reward system
- Stays in bed until lamp on
- Slowly shift lamp timer later until goal reached





Sleep Restriction

- Used for non disruptive waking
- Child happily awake in their bed for over an hour
- Child returns to sleep independently
- Continues sleeping past usual wake time
- Often used for children with additional needs
- Restricts time a child in bed to consolidate sleep



Sleep Restriction- Management

- Sleep diary to work out an average nights sleep
- Important to look at sleep time rather than time in bed
- Schedule to reduce time in bed to increase sleep efficiency
- Shift bedtime later/wake up earlier to create sleeping time
- If night waking is eliminated for 1 week then readjust bedtime or wake up time by 15 minutes
- Continue each successful week until time sleeping improves



Scheduled Awakening

- Not fully understood why it works despite several studies
- Often used to treat night terrors
- Used for persistent regular night waking
- Can be used for children with additional needs
- Involves stirring a child briefly out of a deep sleep



Scheduled Awakening-Management

- Sleep diary to monitor child's waking pattern
- Stir child 30 minutes prior to usual waking time
- ✤ If child wakes easily stir 15 minutes earlier
- Do not fully wake child
- Repeat consistently for 7 consecutive nights then skip 1 night per week
- Slowly reduce number of nights per week until child no longer wakes



Nightmares

- ✤ A frightening dream during REM sleep
- Occurs in the second half of the night
- Child is anxious after and can be difficult to settle afterwards
- Parents should reassure & comfort
- Child remembers episode in the morning



Nightmares- Parent Tips

Tips for parents:

- Check the room to ensure toys do not look scary to a child in the dark
- If a nightmare occurs give attention to the child immediately & comfort if necessary, remain calm throughout the episode
- Give the child the opportunity to talk about the dream however respect if they do not want to at this time, they may wish to in the morning



Nightmares- Parent Tips

- Turn nightmares into happy endings
- Explore if the child currently experiencing any fears/anxieties
- Try to avoid nightmares by not letting children watch scary TV/DVD's etc.



Night Terrors

- ✤ A partial waking from non-REM sleep
- Occurs early in the night
- Child is calm afterwards & remembers little or nothing
- Child returns to sleep quickly afterwards
- Parents should do little or nothing
- Can be familial



Night Terrors- Parents Tips

- To try & avoid terrors make sure the child is getting enough sleep
- Make sure the child's room δ environment is as safe as possible
- Do not wake or disturb a child during a night terror episode



Night Terrors- Parents Tips

- If frequent and at a regular time, wake the child 15 minutes before a terror is due
- Allow them to go back to sleep after about 5 minutes
- If forgetful, set an alarm as a reminder to stir child
- After a few nights the sleep terrors will often fade



Sleep Walking

- Very common- 15%-40% children at least once
- ✤ Occurs in NREM/ Deep Sleep
- Usually brief– up to 30 minutes
- Causes: stress, anxiety, sleep deprivation, irregular sleep patterns, familial
- Treat in a similar way to night terrors



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