

SLEEP

The #1 Health Promoting Behavior



LCPS 2024 Mental Health & Wellness Conference
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Introduction



Family Nurse Practitioner

Certified Sleep Consultant

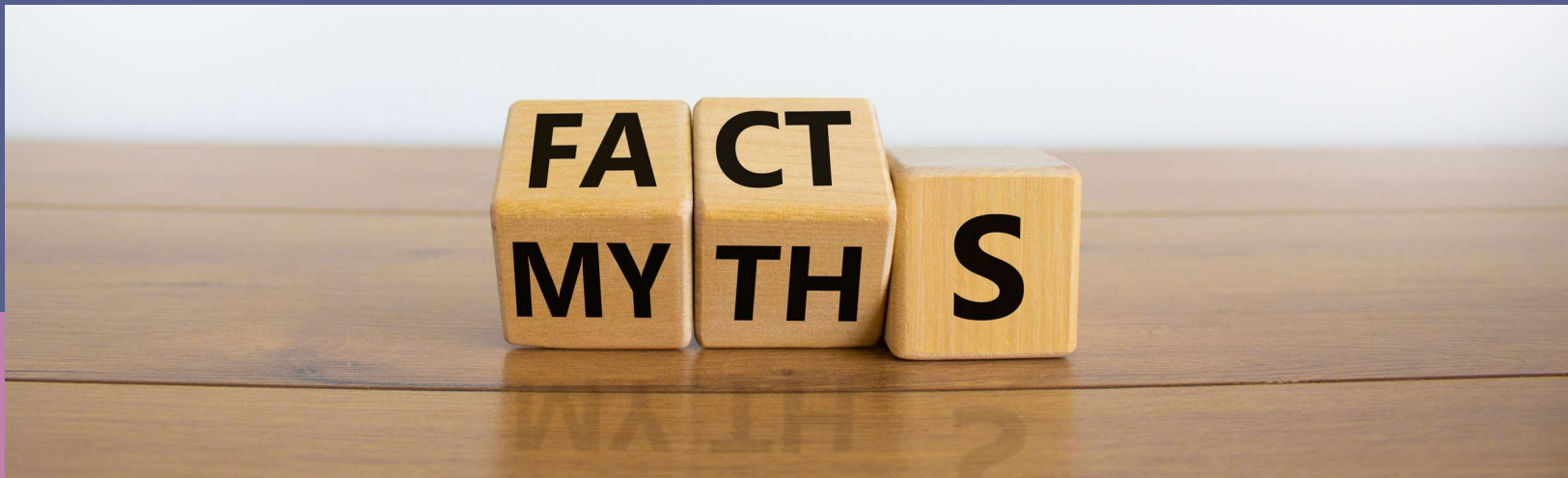
Founder of **BLISS Pediatric Sleep Support**

Proud Mom to Rona & Maliah

Sleep Trivia



1. Humans can adapt to getting a few hours of sleep per night.
2. Daytime napping is only for young children and the elderly.
3. It's better to keep a child awake longer in the evening to ensure they sleep through the night.
4. All children need the same amount of sleep regardless of age.



Objectives:

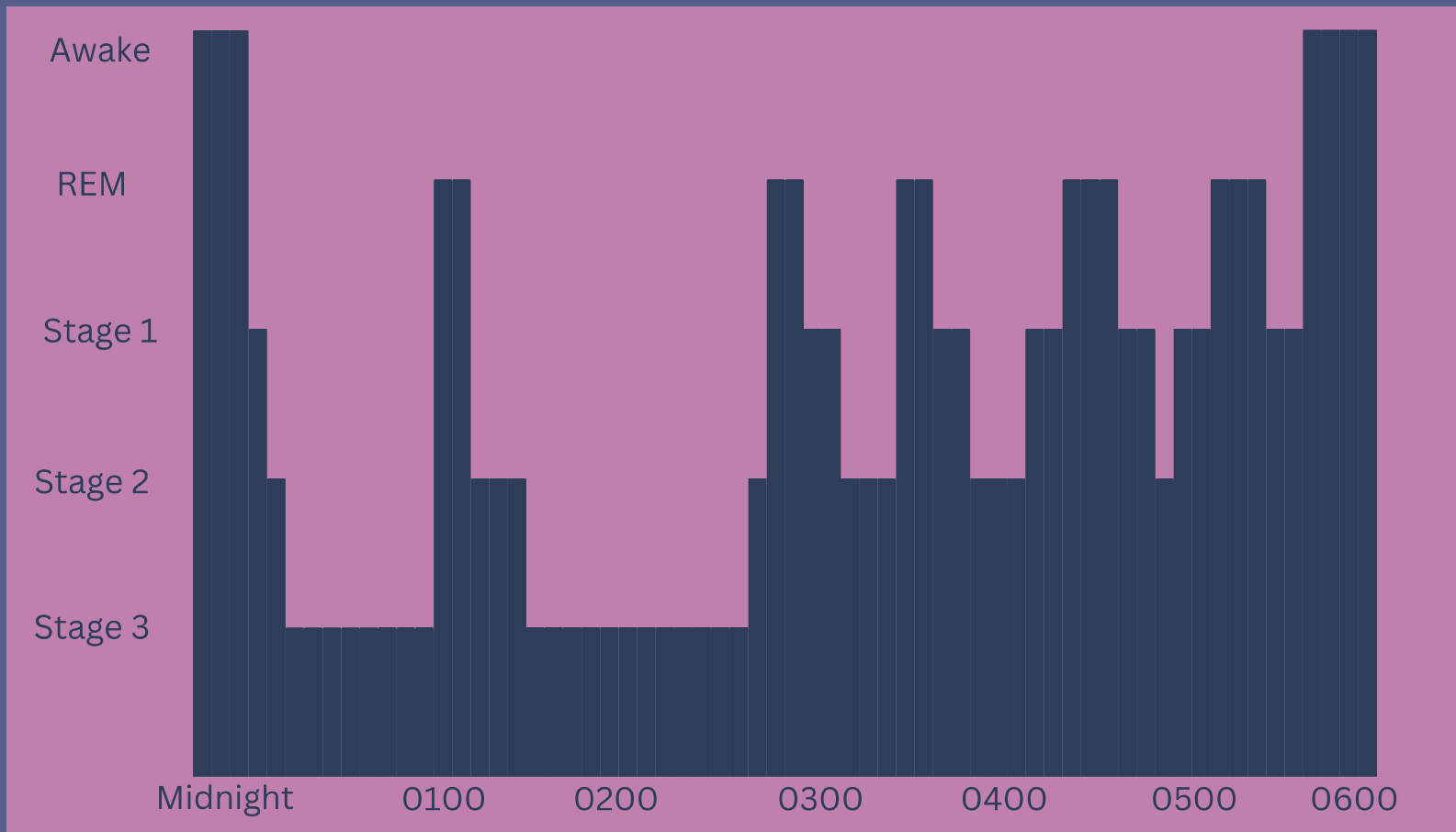
- Understand the physiological changes that occur during sleep.
- Understand how disrupted sleep impacts children.
- Learn behavioral strategies that promote sleep.
- Know when to reach out for additional support.



Sleep Architecture

- **Awake:** alert with eyes open
- **Stage 1 Light Sleep:** muscle tone present, breathing regular, drowsy & dozing, 5% of total sleep time.
- **Stage 2 Deeper Sleep:** heart rate & temperature drop, may move or startle, 45% of total sleep time.
- **Stage 3 Deepest Sleep:** most difficult to wake from, night terrors & bedwetting may occur, 25% of total sleep time.
- **REM:** muscles paralyzed except eyes and diaphragm, breathing erratic and irregular, brain is active, 25% of total sleep time.

Sleep Architecture



Hormones in the Sleep-Wake Cycle

- **Melatonin:** produced by pineal gland, receives information from retina on day-night cycle.
- **Growth Hormone:** secreted by the pituitary gland, most intensely released during deep sleep.
- **Cortisol:** stress hormone, produced & released by adrenal gland.
- **Leptin & Ghrelin:** hormones that control appetite, leptin hinders hunger and ghrelin boosts appetite

What happens during sleep?

- Growth & Development
- Immune Strengthening
- Neurotoxic waste elimination
- Memory consolidation
- Emotional regulation
- Behavioral regulation
- Synaptic pruning



What is the impact of inadequate sleep?

- Higher risk for obesity & type 2 diabetes
- Poor mental health (anxiety & depression)
- Risk for injuries
- Attention problems
- Poor behavioral & emotional regulation
- Poor academic performance

How Much Sleep is Enough?



- Ages 4-12 months: 12-16 hours (including naps)
- Ages 1-2 years: 11-14 hours (including naps)
- Ages 3-5 years: 10-13 hours (including naps)
- **Age 6-12 years: 9-12 hours**
- Age 13-18 years: 8-10 hours

American Academy of Sleep Medicine

Common Sleep Problems in Early Elementary Children

- Bedtime Resistance (fears & anxiety)
- Difficulty Falling Asleep
- Night Waking
- Bedwetting: 20% at age 5, 10% at age 7, more common in boys than girls.
- Nightmares & Night Terrors: terror (NREM), mare (REM)
- Sleep Walking



Behavioral Interventions to Promote Sleep



#1 Sleep Hygiene

- Bedtime Routine: ~20 minutes long (bath, pjs, teeth, book, bed)
- Regular bedtime & rise time: on weekdays & weekends
- Media Curfew: 1-2 hours before bedtime
- Physical Activity: ~1hr/day for all ages
- Healthy Diet: minimize sugar & avoid caffeine



#2 Sleep Sanctuary

- Cool Room: 68-72 degrees
- Quiet: drown out unpredictable or distracting noise (fan, white noise)
- Dark Room: dim light as bedtime approaches, bedroom as dark as possible
- Soothing Scents: i.e. lavender diffuser



#3 Bedtime Worry

- Gratitude Journal: write good things that happened during the day.
- Mindfulness Exercises: simple breathing, guided imagery.
- Create a Worry Time: a specific time of the day to discuss concerns and coping.
- Breathing exercises: hot chocolate breathing or stuffy-on-belly breathing



#4 Involve Your Child

- Child friendly sleep education books
- Create your own bedtime story
- Create your own bedtime routine checklist & let them decide on the order
- Create a dream board using pictures and words that represent positive dreams & goals



#5 Parental Strategies

- Avoid Sleep Props: i.e. parental presence
- Set boundaries with compassion
- Validate emotions & provide comfort
- Stay Consistent



When to Seek Help

- New sleep challenges after previously sleeping well
- Excessive Daytime Sleepiness
- Frequent snoring or abnormal breathing
- Frequent nightmares or night terrors: 2 or more per week
- Concern for psychological or developmental condition
- Consideration of medication or supplement to aid in sleep



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Websites:

CDC Healthy Schools

[SleepFoundation.org](https://www.sleepfoundation.org)

[Clevelandclinic.org](https://www.clevelandclinic.org)

