

SLEEP RECOMMENDATIONS FOR CHILDREN

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Understand the Factors Driving Insomnia

There are four components of your child's sleep system that affect their ability to fall asleep easily and their quality of sleep.

- **The Sleep Drive System**
- **The Body Clock**
- **The Activation System**
- **The Environment**

*If your child's sleep problem is severe and/or chronic, a consistent approach in which **all four** of these components are addressed **in a coordinated and consistent manner** is likely required to see improvement.*

A. Ensure Adequate Sleep Drive

*Sleep drive builds when awake and is depleted when asleep. Physical activity increases sleep drive and sedentary behaviours may result in inadequate sleep drive at bedtime. **High sleep drive makes it easier to fall asleep and results in a more consolidated, restorative sleep.***

Recommendations

- **Ensure there is adequate time awake before your child attempts to sleep. Napping and sleeping in past their regular wake-up time, and, for some, even dozing briefly during the day should be avoided in children with insomnia or bedtime difficulties. As a guideline, at least 12 hours of time awake is generally required to build up adequate sleep drive for most children.**
- **Increase physical activity as much as possible, but avoid exercise too close to bedtime due to the activating effect of physical activity.**

B. Match Sleep and the Body Clock

The body clock runs on a ~24 hour cycle and has a powerful influence on the timing of alertness, sleepiness, and sleep quality.

Mismatch between the timing of your child's clock and bedtime can contribute to insomnia. Mismatch between the timing of your child's clock and the wake-up time can lead to struggles with waking up and issues with daytime functioning.

The timing of the clock is set by behavioural and environmental cues and, most powerfully, by the **wake-up time** and the **timing of exposure to bright light**. Bright light in the morning helps to anchor the body clock on a consistent schedule.

Melatonin is the sleep hormone that **starts** to rise in response to **lower light conditions, triggering sleep 3-5 hours later**. Melatonin production is suppressed by blue light. Higher amounts of blue light are found in LED lights and LED-backed screens (from tablets, smartphones). High doses of blue light in the evening can result in difficulties with sleep onset as well as poor sleep quality and may delay the timing of the body clock.

Recommendations

- **Have your child wake up at a consistent time**, regardless of the amount of sleep or the sleep quality obtained the night prior
- **Increase bright, sunlight exposure during the day, especially in the morning**. Avoid sunglasses as well as dark/dim environments in the morning (ex. Basement rooms or rooms without windows)
- **Reduce light exposure in the evening as much as possible**, starting 3 hours before bedtime
 - Cut out screens if possible
 - If cutting out screens is not possible, reduce the harm of screens:
 - Install light filters on all electronics and set these filters to start at least 3 hours before bedtime
 - F. lux
 - NightShift on Apple devices
 - Twilight on Android devices
 - Reduce the brightness and backlighting of the television in the evening as much as possible. Some TVs will allow you to save a dim setting to be used in the evening so you that you can easily switch back to the brighter, daytime setting
 - Wear blue light blocking glasses in the evening and during night awakenings. Ensure that < 98% of blue light is filtered. Do not use these glasses in the morning and during the day.

- Install lighting alternatives that emit less blue light, particularly in areas where your child spends most of their time in the evening (ex. Ready Sleep Light Bulb, Blue Blocking Miracle LED Bulb, both available on Amazon)
- Add dimmer switches to frequently used lights
- Dim lights & turn off unnecessary lights (especially LED lights) in the evening, starting a few hours before bedtime

C. Reduce the Level of Activation at Bedtime

High levels of activation at bedtime makes it **difficult for your child to fall asleep easily and to have a good quality sleep.**

Some children have a **higher activation set-point** (ex. children with anxious temperaments, children with creative and active minds), **struggle more with reducing their level of activation, or become easily activated. These children may be at higher risk for developing insomnia.**

For all children, many factors can result in an activation level that is too high at bedtime

- **Strong emotions and worries (bedtime fears, separation fears, loss of parental presence, excitement, etc)**
- **Alerting medications, food, or drink in the late afternoon and evening**
- **Alerting activities too close to bedtime**
- **Alerting environments**
- **A conditioned response of high activation in the bed**

*If a lot of time has been spent awake in bed, your child may have developed a negative association with their bed. As a result, getting into bed can triggers a shift to a higher level of alertness and activation. This is called **conditioning** (often referred to as conditioned or cued arousal). It is a very common and powerful factor that drives chronic sleep issues.*

You can help your child reduce activation levels at bedtime and in bed in the following ways:

Allow adequate time to wind-down

- See blogpost: Quiet Time Activities Perfect for Getting Kids to Calm Down for Bed from modernparentmessykids.com
- Establish a simple and predictable bedtime routine
 - 3-4 steps (ex. Bathroom, brush teeth, 2 stories, lights out) done the same way every night
 - No more than 2 locations (ex. Bathroom then bedroom, not back and forth)

- Leave the most enjoyable activity for last to motivate your child through the routine

Reduce activating stimuli in the evening

- Give alerting medications (like stimulants for ADHD) as early as possible
- Do not give your child activating food or drink in the late afternoon or evening (caffeine, sugary snacks)
- Cut out activating activities at least an hour before bedtime (ex. exercise, screens)

If possible, reduce exposure to activating input in general if your child tends to be anxious or has a very vivid imagination (ex. scary movies, video games)

Address difficulties with separation and sleep associations (ie. requiring a parent present) (see pages 5-9)

Address worries and physical tension at bedtime (see page 10)

Reduce conditioning

- To retrain your child to associate bed with sleepiness and low activation, set up a spot in their room that is **as comfortable and as appealing as the bed.**
 - Options: a comfortable chair, a bean bag chair, a comfortable rug with cushions, sofa cushions placed on the floor
 - Have a blanket, sweater, and slippers on hand
 - Place a dim reading lamp nearby
 - Have relaxing things to do ready in this space (books, magazines, crafts, drawing materials, a photo book, sensory materials, fidget toys, 3D labyrinth balls, puzzle books, stickers, etc.)
- Encourage your child to limit their time awake in bed by using this space if they cannot fall asleep or if they wake up in the middle of the night. Encourage your child to return to bed only when sleepy. Have your child reserve bed for sleep only. This will help them associate their bed with sleepiness and low activation.

D. Optimize the Evening and Sleep Environment

Reduce Light and Electronics in The Evening

- Establish a cut off for the entire household
- Establish a charging station where electronics need to be 'put to bed' by a set time
- Ensure that there are alternate fun activities for your child that are easily available
- See page 2 for more tips on reducing light and reducing the harm of electronics in the evening

Reduce Light in the Sleep Environment

- Ideally, the room is pitch black; however, if a nightlight is needed, use one that is dim and does not emit bright white or blue light
- Install blackout curtains (IKEA and Amazon both have inexpensive options)
- Ensure that these curtains can be opened because lots of bright sunlight is wanted in the morning and during the day
- Use blackout stickers for small sources of light in the room (ex. LightDims, on Amazon)
- Consider a comfortable eye mask (ex. Sleep Master and Dream Sleeper, on Amazon)
- Install dim nightlights in hallways and bathrooms so that bright lights do not need to be turned on for bathroom breaks or during nightwakenings

Reduce Noise

- Set quiet hours in your household
- Consider earplugs (Mack's), a white noise machine (Homedics, Marpac), or a fan to drown out disruptive noise

Improve Comfort

- Optimize temperature: Use a fan or space heater, change the temperature settings in the home, open windows
- Check the comfort of the mattress, pillows, and bedding
- Consider replacing the mattress if required or purchasing a mattress pad
- Consider a weighted blanket

Increase Light During the Day

- Consider a light wake-up alarm (Phillips Wake-Up Light Alarm Clock) that simulates sunrise

SLEEP STRATEGIES FOR CHILDREN (Ages 4-12)

Bedtime Fading

Adapted from Interventions for Behavioral Sleep Problems in Children and Adolescents, presented by Dr. Lisa Meltzer, PhD at Sleep Trends 2016 in Phoenix, US

Bedtime fading is often the most helpful **first step** for children who struggle to fall asleep and/or who require a parent to be present to fall asleep. Bedtime fading is the **time-limited delay of your child's bedtime**. This delay leads to

- **Higher sleep drive** at bedtime
- **Better matching of your child's body clock with bedtime** (if the current bedtime is too early or if your child has a delayed body clock)
- **A reduction in the opportunity for bedtime struggles**

Often, this strategy will help your child **fall asleep faster once in bed** (with or without a parent present). As a result, your child will start to associate bed with sleepiness as opposed to associating bed with being alert, anxious, and awake.

How To

Adapted from Interventions for Behavioral Sleep Problems in Children and Adolescents, presented by Dr. Lisa Meltzer, PhD at Sleep Trends 2016 in Phoenix, US

1. **Set your child's regular wake-up time.** This is either the time at which your child spontaneously wakes up most days or the earliest time your child has to be woken (ex. child has to wake up at 6 am for school). Set this as your child's consistent wake-up time on both weekends and weekdays.
2. **Track your child's sleep with sleep logs for ~5 days.** If your child requires you to be present to fall asleep, stay until he/she falls asleep for now. Note when your child typically falls asleep (ex. 11 pm).
3. After this period of monitoring, **delay your child's bedtime to the typical time of sleep onset** (ex. 11 pm).
 - Start the **wind down** 60 minutes before their bedtime. Some children may need a shorter or longer wind-down period so adjust as needed. Have relaxing activities planned for this winddown. Avoid activating activities and, in particular, electronics once the winddown has begun.

- If your child has strong sleep associations, stay with your child until sleep onset for now. Once there has been some success with bedtime fading, then address the sleep associations with Graduated Extinction strategies (see page 6).
4. Once your child has started to consistently fall asleep within 15-20 minutes of the new bedtime, advance the bedtime (ie. move the bedtime earlier) no faster than 15 minutes every few days (ex. 10:45 pm for 3 days, then 10:30 pm for 3 days, then 10:15 pm for 3 days, then 10 pm for 3 days). If your child starts to take longer to fall asleep again, delay the bedtime again and repeat.
 5. Continue to expand the window of time that your child is in bed to target the amount of time that your child requires to be rested (ex. If your child requires 10 hours of sleep, target a sleep window that is no longer than 10.5 hours in length). Allow an extra 30 minutes to account for normal time to fall asleep and normal nightwakenings.

Tips

- Start this delayed bedtime on a Friday so there is less pressure on both your child and the rest of the family.
- Do not allow your child to sleep in past the set wake-up time (ex. 6 am) or to nap because this will slow or negate progress.
- Boost physical activity in the early stages of this process to increase sleep drive.
- Be extra mindful of good sleep hygiene practices during this process.
- If possible, reduce activities or stressors that may get in the way of being consistent with this process.

Common mistakes

- Not delaying the bedtime enough. Delay bedtime to the current sleep onset time.
- Allowing the child to sleep-in past their regular wake-up time or nap. Sleeping in and napping reduce bedtime sleep drive. An irregular wake-up time weakens the body clock signals.
- Not addressing other factors that may be contributing to high activation at bedtime (not enough of a wind-down period, electronics too close to bedtime, activating activities too close to bedtime, etc.)

Graduated Extinction Strategies

Adapted from Interventions for Behavioral Sleep Problems in Children and Adolescents, presented by Dr. Lisa Meltzer, PhD at Sleep Trends 2016 in Phoenix, US

Graduated extinction strategies help your child gradually learn how to fall asleep without a parent/caregiver present. If your child has a strong sleep association issue (ex. Has never fallen asleep alone), it may be better to have some success first with bedtime fading only. If your child is occasionally able to fall asleep alone, graduated extinction strategies can be used at the same time as bedtime fading.

A. The "Excuse Me" Drill

This strategy may be better for kids who cannot tolerate being alone for even short periods of time and are not yet motivated to learn to fall asleep on their own.

How To

1. For a few days, stay with your child until sleep onset. **Track the typical time needed for your child to fall asleep (ex. 30 minutes)** with you present.
2. On the first night, stay with your child as usual. **After half of the typical time to sleep onset (ex. 15 minutes), give your child a reason that you have to leave the room and promise that you will come back in a set amount of time.** Pick an initial duration that you think your child can tolerate without protesting or coming out of the room to check on you.

The "Excuse Me" Drill (continued)

"I need to go to the bathroom, I'll be back in 2 minutes."

"Oh, I just remembered that I promised I would call your grandmother before she goes to sleep. I'll be back in five minutes".

"I think I left on the oven. I'll be back in one minute after I check".

3. **Return after the promised amount of time** and stay with your child until he/she falls asleep. It is important that you return as promised so that your child can trust that you will keep your word and is as comfortable as possible with being alone. Over the next few days, **gradually expand the time that you are away.** A guideline is to increase the amount of time away by 2-5 minutes every day but increase at a rate that is tolerable for your child.
4. Once your child starts to falls asleep alone, use praise and perhaps a little treat to celebrate their progress. Alternatively, some kids do better without praise or attention. Use the approach that you think will work best with your child.

Tips

- Remove any potential excuses or reasons for your child to stall or come out of the room beforehand. For example, ensure that they have water, have gone to the bathroom, and have toys/books that they can play with independently before saying goodnight.
- You may need to adjust how quickly you return so that it is 'easy' for your child to succeed. For example, if you can tell your child is getting antsy earlier than the amount of time you said you would be away, go back earlier. Conversely, if you think they can tolerate you being away for longer, delay your return slightly.

B. The Second Goodnight & The Sleep Jar

This strategy may be better for kids who can tolerate being in their rooms alone for at least a short time and are motivated to learn to fall asleep on their own.

How To

1. **Discuss setting up a system with your child** to help them learn how to fall asleep on their own. Discuss their reasons for learning this skill (for example, being able to go to sleepovers, being a 'big kid'). Empathize with them and stress that you are going to attack this problem together.
2. **Brainstorm rewards.** If your child is younger, consider creating a treasure chest. Ideal rewards are activities done with a parent but small items work well too (stickers, colouring books, temporary tattoos, inexpensive used books).
3. **Obtain a clear glass jar** and, if your child would enjoy this activity, decorate the jar with them.
4. Gather items that can be used as **tokens** (ex. Coins, small figurines, or buttons).
5. **Discuss the 'rules' with your child.** Agree on how many tokens are required for a particular reward (for example, 10 dimes = a toy from a treasure chest). If you want, set up a reward chart with your child.
6. After the bedtime routine is done, tell your child you will **check on them after a set amount of time** (ex. 5 minutes). During the time you are away, the expectation is that your child will stay in the room quietly and not protest. Encourage your child to play quietly out of bed if he/she is not sleepy.

7. If your child comes out of the room, protests, or otherwise cannot comply with the expectations, **calmly redirect your child back to the room** and say you will be back at the set time.
“Remember that I expect you will stay quietly in your room. If you are not sleepy, play quietly on your floor. I’ll be back in x minutes. I know you can do it.”
8. If your child has been able to follow through with the expectations, place a token in the jar when you return. The interaction should be as short and as neutral as possible.
“Good job [put the token in the jar]. I’ll be back in x minutes. You can do it! [leave quickly]”
9. Repeat this process as needed until your child falls asleep. At the beginning, you may need to do this process multiple times. If it becomes too much, delay the bedtime further (as per the Bedtime Fading protocol).
10. The following day, use praise if you think it will be helpful and allow your child to trade in tokens for a reward.
11. As tolerated, start to expand the time intervals that you are away.

Tips

- If required and agreed upon, your child can play quietly outside of bed and/or turn on a dim light until sleepy. Encourage your child to use another comfortable space in their room instead of their bed if they are not feeling sleepy.
- Have special, relaxing toys or books in their room that will motivate them to stay in the room.
- Try to remove any potential excuses or reasons to stall or come out of the room beforehand. For example, ensure that they have water, have gone to the bathroom, and have toys/books that they can play with independently before saying goodnight.
- You may need to adjust how quickly you come back so that it is ‘easy’ for your child to succeed. You want your child to taste success early on to help build motivation. For example, if you can tell your child is getting antsy after 5 minutes and you are not supposed to come back until the 10-minute mark, go in earlier when your child is still generally following the expectations and give your child a token. Unless they are older and have a clock, they don’t know exactly how much time has passed. Conversely, if you think they can tolerate you being away for longer, delay your return.

The Credit Card Strategy

Adapted from Interventions for Behavioral Sleep Problems in Children and Adolescents, presented by Dr. Lisa Meltzer, PhD at Sleep Trends 2016 in Phoenix, US

This strategy is for kids who seek out your attention in the middle of the night or climb into your bed because of sleep associations or night-time fears.

Focus first on having your child learn how to fall asleep at the beginning of the night with bedtime fading and/or graduated extinction techniques.

Once your child has had success at falling asleep alone, then tackle the middle of the night awakenings. In the meantime, when your child wakes up in the middle of the night and seeks out your attention, redirect your child back to bed. If needed, lie down until your child falls back asleep. If your child wakes up repeatedly, sleep in your child's room for now instead of allowing your child to sleep in your bed.

How To

1. **Create fake credit cards.** Optional: Make it a fun activity to do with your child.
2. **Talk with your child** about addressing their need for a parent's presence at nighttime. Let your child know you think it will be a challenge but that you know they can do it. Remind your child of their earlier successes with sleep. Discuss reasons for learning this skill (for example, being able to go for sleepovers, being a 'big kid').
3. **Give your child a set number of credit cards at bedtime.**
4. **If your child comes to your room to check in, one credit card is 'cashed in' (ie. given to the parent).** Keep your interaction as brief and neutral as possible. Redirect your child back to bed, tuck them in, say goodnight, and leave quickly.
5. **The following day, unused credit cards can be exchanged for a small reward** (for example, a credit card can be cashed in for a reward from a treasure chest or 5 credit cards can be cashed in for a large reward such as a fun outing).
6. As your child improves, **reduce the number of credit cards gradually.**

Tips

- The number of cards that you start with will depend on your child's level of motivation and current frequency of awakenings. Choose a goal that is easy for your child to taste success right away then increase the challenge gradually.

STRATEGIES FOR WORRY AND SEPARATION AT BEDTIME

Worry Time

Often bedtime is the first opportunity to process worries and problems from the day, leading to anxiety and high activation at bedtime. **Worry time** is a proactive approach that gives your child a daily, predictable opportunity to process these worries with you at an earlier time in the day.

- Put aside a regular time with your child earlier in the evening (right after dinner is a good time).
- Take 20 minutes to talk about worries or stressors from the day.
- Consider making a worry box to hold worries that cannot be processed that day.
- If the time to process worries becomes too long, set the expectation that one worry will be worked on per day.

1:1 Time with Parents

Bedtime may be the only time for the child to get one-on-one time with a parent so it's understandable that your child may not want this time to end.

- See the blogpost *What's So Special About Special Time?* From the AHAparenting.com website to learn how to implement a regular one-on-one time. Even 5 minutes per day can be very helpful.

Relaxation

There are many tools to help your child combat worry and anxiety at bedtime.

Here are a few options to get you started.

- YouTube: *Cosmic Kids Yoga and Mindfulness*
- App: *Breathe, Think, Do with Sesame* (4y+)
- App: *Headspace App* (8y+)
- App: *Smiling Mind App* (7y+)
- Book and CD: *Sitting Like a Frog* by Snel, Kabat-Zinn & Kabat-Zinn

- If your child struggles with significant anxiety or behavioural difficulties that affects other areas of their life (school, friends, other activities) or causes significant distress, you may consider the additional resources on page 11 and/or further assessment by a psychiatrist, psychologist, or therapist.

ADDITIONAL RESOURCES

Sleep Books

- *What to Do When You Dread Your Bed* by Dawn Huebner
- *Better Sleep for Your Baby and Child* by Dr. Shelly Weiss
- *Healthy Sleep Habits, Happy Child* by Marc Weissbluth

Additional Support

All of the strategies outlined in this handout require a consistent approach. With some strategies, there may be an 'extinction burst' in which things worsen for a few days before you start to see improvement.

It can be extremely difficult to remain on course and, if there are additional challenges (multiple households, significant stressors on the family, a mood or anxiety disorder in the child or parent, etc.), it can be near impossible for parents to maintain the consistency required to see change.

In these situations, consider working with a sleep therapist in the community to obtain regular support and feedback

Anxiety Resources

- *Keys to Parenting Your Anxious Child* by Katarina Manassis
A good summary for parents of children with anxiety and anxious temperaments.
- *What to Do When You Worry Too Much* by Dawn Huebner
A workbook for school-aged children based on cognitive-behavioural therapy (CBT)
- *My Anxious Mind: A Teen's Guide to Managing Anxiety and Panic* by Tompkins, Martinez, and Sloan
A book for older children and teens based on cognitive-behavioural therapy (CBT).
- Mindshift App & The Anxiety Canada Website

ADHD Resources

- *Taking Charge of ADHD* by Russell Barkley

Other Parenting Resources

- *Raising Your Spirited Child, Third Edition: A Guide for Parents Whose Child Is More Intense, Sensitive, Perceptive, Persistent, and Energetic* by Mary Sheedy Kurcinka
- *The Whole Brain Child* by Daniel J. Siegel and Tina Payne Bryson
- YouTube video: *Jennifer Kolari: The CALM Technique and Child Brain Development* (Start at 7:50)
- AHAparenting.com

