



let's talk about LIGHT&HEALTH

A new kind of lullaby: Robust light/dark pattern for babies

GUEST SPEAKER



Sofia Axelrod, PhD

Sleep Research Associate Young Laboratory of Genetics at The Rockefeller University

As the founder of Solaria Systems, Inc., Dr. Axelrod and her team build lighting, software, and data technologies to help families, workers, and patients sleep and feel better, and live longer and healthier lives. She has also applied her expert knowledge to baby's sleep, writing the book-*How Babies Sleep*. Using insights plucked from the front lines of scientific research, Dr. Axelrod's ultimate goal is to elucidate the basis of sleep and fundamentally improve it in our notoriously sleep-deprived society.

EPISODE HIGHLIGHTS

Sleep is important, especially for babies in their early years to help promote general health, good mood, and growth. There are two processes for sleep cycles:

- Circadian rhythms cycle approximately every 24 hours for adults and babies. A baby will share a mother's circadian rhythms while in the womb. After birth, these cues from the mother are taken away so a baby needs to establish their own circadian rhythms.
- Sleep pressure builds up during waking hours. In growing babies, sleep pressure builds up a lot faster than adults, which is why they need to nap all the time.

For how imperative sleep is, it's not always easy to come by, especially for newborns and their parents. Learn more about Dr. Axelrod's three-step process to help babies (and you!) sleep better:

1. Controlled light exposure to establish circadian rhythms

Make the day as different as possible from nights (for both sleep and play) to establish the difference between daytime and nighttime. Here are some tips:

BRIGHT DAYS	DIM NIGHTS
See the sunlight by going outside for a walk or opening window shades	Use dim, amber colored lights in the evening and a similar nightlight to Dr. Axelrod's red light during
For young babies, nap in rooms that are not completely dark or quiet	the night for visibility while placating to avoid suppression of melatonin





let's talk about LIGHT&HEALTH

A new kind of lullaby: Robust light/dark pattern for babies

2. Gentle sleep training

Babies need to learn how to put themselves to sleep. This is hard for them at first, which is why they cry. Here are some tips for helping a baby (and you!) sleep through the night:

- Have your baby sleep in another room to create distance (especially if breastfeeding, as a baby can smell the milk on the mother)
- When it's bedtime and your baby needs to sleep, instead of intervening to get them to stop crying, let them be for 90 seconds (each time) to learn how to self-soothe. Can take 45 minutes a few times, but usually adjusted after 1-2 days
- While your baby is in their crib, try shushing and gently rubbing baby's back

- A white noise machine creates sounds similar to noises babies experience when still inside the womb, so those noises can be soothing
- Avoid sleep crutches such as sleeping with you or anything that disrupts your sleep as a parent, as your baby will learn they need that to sleep
- Start these tactics when they're young so they develop good habits
- ✓ If successfully deployed, parents sleep better and are happier and children grow up to be well-adjusted to sleep on their own

3. Create a schedule and monitor sleep need

Establishing and keeping a consistent schedule (even on weekends!) may not be what you want to hear, but developing a routine and sticking to it immensely helps promote and maintain circadian rhythms and by extension other daily routines.

Sleep need goes down as a baby ages. Dr. Axelrod advises that it's okay to wake a sleeping baby to get them to sleep less during the day (based on total sleep need) so they can sleep more at night. As long as they're getting enough sleep, babies don't care what time of day they're getting that sleep, but you as a parent who wants to seep through the night does!

Use the following resources to learn more:

Science-Based Baby Sleep Support Facebook group

Refer to Dr. Sofia Axelrod's website for more information on available tools and resources



Graphic credit: Dr. Sofia Axelrod https://kulalaland.com/blogs/baby-sleep/a-guide-to-how-long -your-baby-should-sleep-1-week-6-years