Don’t Miss These Key Signs of Disrupted Sleep Stages

Seven a.m. Your child’s alarm goes off, but she doesn’t get up. You have to shake her three times before she reluctantly drags herself out of bed, and even then, she’s grumpy and irritable. She insists she’s still tired, even though she went to bed at 8. And she’s been tired every morning now for months.

What’s causing your child to wake up tired? If she’s going to bed early but doesn’t seem rested, it could be that she needs more quantity of sleep -- even if she’s getting the recommended amount for her age. But it could be the quality, not the quantity, of her sleep that’s causing the trouble. Just tiredness can be hard to diagnose, but there are some telltale signs that the problem isn’t how much time she’s spending asleep, but what’s happening after her eyes close.

Good Sleep Needs All the Sleep Stages

All stages of sleep are important for quality sleep. Different types of problems can cause disruptions during each stage, and if any stage is interrupted, your child could miss out on high-quality sleep. To understand what’s causing your child’s early morning exhaustion, start with understanding what the sleep stages are and how they work.

The first two stages are both light sleep (sometimes called the “active” stage of sleep), during which your child is falling asleep. In these stages, it’s easy to wake your child up, and she might feel like she never actually fell asleep. In light sleep, your child might dream, but the dreams are less vivid than the dreams in REM sleep. Adults and older children spend nearly half the night in light sleep. During this stage, your brain processes memories.

Your child transitions from light into the two stages of deep sleep, also called still or slow wave sleep. In these stages, the brain waves slow down. This is one of the most important stages of sleep to help your child feel rested: it’s the stage where the body heals and regenerates itself. In deep sleep, she doesn’t dream.

After your child has gone through each stage, she’ll cycle back from deep sleep through light sleep. This full cycle is followed by the night’s first cycle of the REM stage, or rapid eye movement. In REM sleep, heart rate and breathing speed back up. Your child’s eyes will move rapidly, and the brain is very active. REM is the stage of sleep when we dream, and it’s also when we cement memories and learning.

The cycle from light sleep to deep sleep to light sleep to REM sleep is repeated several times throughout the night. Most people will go through REM sleep about 5 times in a single night.

How Sleep Stages Are Different For Kids

When your child was an infant, she didn’t go through all the sleep stages. Newborns have only two sleep stages: active sleep and quiet sleep. When a baby first falls asleep, she goes straight

into active sleep, which is the baby version of REM sleep. Just like an adult in REM sleep, a baby in active sleep will have faster breathing and heart rate, moving eyes, and movement. From active sleep, a baby will fall into quiet sleep, with less movement and slower breathing. One key difference for infants is that the sleep stages are much shorter: only 50 minutes or so for the total cycle from active to quiet.

By the second half of your child's first year of life, she started to experience the same different stages of sleep that adults cycle through. But there are still two differences that distinguish a child's sleep from an adult's. First, the total sleep cycle is shorter in children; they don't reach the full adult time of 90 minutes per cycle till they're school age. Second, children spend more time in REM sleep than adults do. However, by the time she's in mid-elementary school, your child's sleep stages are essentially the same as an adult's.

Signs of Disrupted Light Sleep

If your child's sleep is being disrupted in the first stage or second stage of sleep, it will usually be pretty obvious: she'll have trouble falling asleep at all. Most of the time, the cause is behavioral or emotional. If your child is stressed or worried, she might struggle to relax enough to fall into the first stage of sleep. This can lead to insomnia, where your child is regularly lying awake at night unable to fall asleep. Behavioral problems with bedtime can also cause disruption in the first stage of sleep: if your child is getting up repeatedly after her bedtime routine is finished, she may never relax enough to fall into the first stage of sleep. This problem is simple to recognize, and it's relatively simple to fix: set a consistent bedtime routine, start it earlier in the evening, and use darkened lights to help your child get sleepy in the early evening.

Another problem related to the first stage of sleep, one that's harder to recognize, is narcolepsy. Narcolepsy affects about 1 in every 2,000 people, but it's one of the most common causes of severe daytime sleepiness. It can start as early as age 10.

The most well-known symptom of narcolepsy is the tendency to fall asleep suddenly -- sometimes in the middle of an activity -- but the first symptom is usually just excessive sleepiness. People with this disorder actually bypass the normal sleep stages, going almost directly to REM sleep as soon as they fall asleep. The cause is unknown, and the disorder can cause serious problems, so if you suspect it, talk with your child's doctor for a thorough sleep evaluation.

Signs of Disrupted REM Sleep

Nightmares are the most common disruption to REM sleep, but although they're disruptive, they're not a disorder. Nightmares are normal and common, and most children outgrow them. They can be a cause for concern if they occur frequently or are causing your child to be chronically tired due to missed sleep. Severe nightmares can be caused by stress, trauma, or PTSD.

Another less common disruption in REM sleep is REM sleep behavior disorder. Normally, during REM sleep, your child's muscles will be paralyzed: her eyes will move, but the rest of her body

will not. However, with RBD, your child will act out her dreams. Although rare in children, this condition can be dangerous, since it's easy for a person to injure himself while moving during sleep.

Signs of Disrupted Deep Sleep

Deep sleep is restorative, but not if your child experiences night terrors. A night terror is similar to a nightmare, but since it occurs in deep sleep, your child isn't able to fully wake up. She might scream and sit up or even run out of bed, but even though her eyes are open, she doesn't seem to see, and she won't respond to comfort. Night terrors are almost as frightening for parents as they are for children, but they're relatively common, and children usually outgrow them without any need for intervention.

Deep sleep is also the most common stage for snoring to occur. Snoring isn't dangerous in itself, and it's also common in children, but it can be a sign of sleep apnea. Sleep apnea causes breathing to stop for short periods. This is very disruptive to sleep, and it can cause your child to never fully enter deep sleep, preventing her from getting fully rested despite a full night of sleep.

What to Do About Disrupted Sleep

If your child is spending 10 hours in bed and appears to be asleep for most of that time, but she's waking up tired the next day or dragging in the afternoon, then it's likely she's experiencing disruption in one of the stages of sleep. Unless she has clear symptoms of a specific sleep disorder, though, it may be difficult to diagnose exactly where her sleep is getting disrupted outside of a sleep lab.

Assuming you're already practicing good sleep habits like a consistent bedtime with a good bedtime routine, a consistent wakeup time, and enough time scheduled for sleep, then the next step is a conversation with your child's doctor. Your doctor can help narrow down the likely culprits that are interrupting your child's snooze. And if you suspect your child isn't getting quality sleep, but you're not sure why, then try a report from Knit Health: you'll be able to identify exactly when your child's sleep is disrupted, which will get you on the path to determine the cause.

Content Upgrade

Is your child waking during the night? The problem could be as simple as sleep cycles. Enter your email to learn if your child's sleep cycles are causing night waking -- and what to do if they are.

How to Keep Your Child Sleeping Through a Sleep Cycle

Most school-aged children don't get up in the middle of the night. But they aren't actually sleeping through the night -- because the truth is, no one really sleeps all night. Every 60 to 90 minutes, your child -- just like an adult -- cycles through the light sleep phase. Some of the times

when he goes through stage 1, he'll wake up. But most kids will go right back to sleep without any memory of waking.

Some kids, however, wake up fully and come to your bed in the middle of the night. If your child is doing this on a regular basis, environmental factors could be the cause.

Here's how to diagnose whether your child is waking because of his light sleep stage:

1. Does he get up about the same time every night? If his bedtime is consistent, then his lightest sleep cycle will happen around the same time too. If he's getting up every night at 3 am, that's a clue that the problem has to do with falling back asleep after his natural mid-cycle waking.
2. Does his environment change from the time he falls asleep to when he wakes in the night? If you're snuggling him in his bed until he falls asleep at bedtime, but then you're not there when he wakes later, he's likely to wake fully, because his situation is so different from the situation he was in when he fell asleep. Just like you would wake up fully if you were on your floor in the middle of the night instead of in your bed, any change in his environment can cause his light sleep cycle to trigger him fully awake. If his bedtime routine includes white noise, audiobooks, a stuffed toy, a hallway light, or similar sleep props, make sure you can keep everything the same all night long.
3. Is he waking with specific worries? Anxiety is a common cause of sleep disturbances for school-aged kids, and if your child is waking up worrying, that will make it hard for him to get back to sleep. Schedule time during daylight hours to talk with him about things that worry him and to figure out ways to reduce his anxiety together, and you might see those night wakings start to fade.

Social Media Posts

Facebook: Is your child REALLY sleeping through the night? Learn the surprising ways that problems in different sleep stages could affect your child's rest: <link>

Twitter: Do you really know how well your child is sleeping? <link>

The Different Sleep Stages

Awake

Our natural sleep cycle has a stage called Awake. In this stage, we experience wake-ups that we rarely remember but that reset our cycle. Shorter bursts of activity lasting less than 30 seconds are called arousals. Many children have up to five longer wake-ups a night. You can find out more about your child's wake-ups on Knit's daily dashboard.

Still Asleep

The deepest stage of sleep, called Still or Slow Wave, (stage 3) is difficult to wake up from and intensifies when your body is overtired. Your brain uses Still sleep for housekeeping after a hard day's work, and your body releases growth hormones. Children in this stage are completely still with a consistent breathing pattern.

Active Sleep

The Active stages of sleep are the lightest. (stage 1 and 2) Body movements, like leg kicks, jerking and rocking are very common, but consult your doctor if they're disrupting your child's sleep.

During REM we dream vividly and our bodies remain still. Our muscles are paralyzed to prevent us from acting out our dreams. REM sleep helps us solve problems and retain memories (like hitting save on a laptop). Children are more active than adults in REM sleep and have variable breathing patterns.