Understanding Night Terrors (Sleep terrors) : Causes, Symptoms, and Treatment Options

Sleep terrors, known as night terrors or pavor nocturnes, are episodes of intense fear and panic, accompanied by loud vocalizations, physical movements, and significant autonomic arousal, typically occurring abruptly during sleep (Leung et al., 1989). These events usually take place without the child's memory of them, though they can result in disturbed and distressing sleep. In most cases, no specific treatment is necessary beyond reassuring and educating parents. The prognosis is generally favourable, with many children outgrowing the condition by adolescence.

1. Night terrors are linked to deep, non-REM sleep and typically occur during the first third of the night. In contrast to nightmares, which occur during REM sleep, night terrors happen when a child is partially awakened from deep non-REM sleep (NREM3), usually within the first few hours of sleep or during the initial third of the night (Moore et al., 2006; Leung et al., 2020). This timing is similar to that of sleepwalking, and it is common for children to experience both conditions simultaneously.
2. Although children experiencing night terrors may appear awake, they are not fully conscious. They may have their eyes open, scream, sit up, or walk around, but they remain in a non-conscious state.
3. After an episode, children typically do not recall the event. If they do remember parts of it, their memories are often fragmented, typically involving a sense of threat. In some cases, children may recall fighting or fleeing from imagined dangers, such as monsters (Guilleminault et al., 2003).

Due to the physical movements often associated with night terrors, such as sleepwalking, children are at risk of injury during these episodes.

How can you tell if your child is having a night terror?

Night terrors typically present with the following symptoms (Leung et al., 2020):

- Sudden, partial awakening, where the child may sit up abruptly or get out of bed.
- Displays of intense fear or panic.
- Attempts to speak or shout, though the speech is often incoherent.

- Signs of autonomic nervous system activation, such as rapid heart rate, quick breathing, heavy sweating, dilated pupils, and trembling.
- A lack of responsiveness to the surroundings means the child may have open eyes but is not aware of their environment.

While night terrors may seem unusual to those who have not experienced them, they are quite common, especially among young children. Research tracking large groups of children has found that the highest prevalence occurs around 18 months, with approximately 35-37% of toddlers at this age affected (Nguyen et al., 2008; Petit et al., 2015). Though children typically outgrow the condition, it remains common during the primary school years, with studies indicating that 11-20% of children aged 9-10 years continue to experience night terrors (Shang et al., 2006; Laberge et al., 2000; Petit et al., 2015; Kim et al., 2017). By adolescence, the frequency of night terrors tends to decrease (Leung et al., 2020). Clinical research suggests that episodes generally last no longer than 10 minutes, though in some cases, they may persist for up to an hour (Leung et al., 2020). If a child's night terrors last more than 30 minutes, medical professionals recommend seeking advice from a doctor.

What causes night terrors in children?

The exact cause of night terrors remains unclear, but it is believed to involve disruptions during deep, non-REM sleep. One theory suggests that night terrors occur due to a failed transition between NREM3 and REM sleep. Additionally, there is evidence indicating that night terrors may be hereditary, with genetic factors contributing to increased susceptibility (Hublin et al., 2001; Nguyen et al., 2008; Petit et al., 2015; Leung et al., 2020; Mainieri et al., 2021). Sleep terrors have also been linked to a range of physical, psychological, and environmental factors (Crisp et al., 1990; Petit et al., 2006; Guilleminault et al., 2003; Kim et al., 2017; Leung et al., 2020), many of which can disrupt deep, non-REM sleep. These factors include:

- Fever
- Fatigue, exhaustion, and sleep deprivation
- Emotional stress (e.g., stress related to bullying)
- A noisy sleep environment
- Frequent headaches
- Sleeping with a full bladder
- Anxiety

- Obstructive sleep apnea
- Attention-deficit disorder (ADHD)
- Autism spectrum disorder
- Restless leg syndrome
- Post-traumatic stress disorder (PTSD)

Moreover, sleep terrors have been associated with the presence of a television in the bedroom. Children with TVs in their rooms are more likely to experience both night terrors and nightmares (Brockmann et al., 2016). This may be partly due to an increased risk of sleep deprivation and fatigue in these children. Additionally, if children fall asleep with the television on, the noise could interfere with their ability to maintain deep, restorative sleep.

How to cope with night terrors in children

Suppose you suspect your child is experiencing sleep terrors or night terrors. In that case, it is important to consult with a doctor to rule out other potential causes, such as nocturnal seizures, panic attacks, or post-traumatic stress disorder. It is also essential to assess whether your child is at risk of self-harm during these episodes. Experts recommend speaking with a paediatrician if you notice any of the following:

- Drooling, stiffening, or involuntary jerking movements
- Episodes lasting longer than 30 minutes or occurring frequently (e.g., more than twice a week)
- Signs of psychological distress during the day

Additionally, it is important to determine whether your child's night terrors are linked to snoring or other sleep-disordered breathing (SDB). SDB can be harmful but is treatable and addressing it may reduce or eliminate sleep terrors (Guilleminault et al., 2003). Several treatments for SDB are available, including orthodontic methods and myofunctional therapy (Huang & Guilleminault, 2017; Villa et al., 2017).

Regardless of whether SDB is present, several strategies can help manage night terrors:

- Remain calm and avoid getting frustrated with your child during an episode. Even if their eyes are open, or they are crying or mumbling, your child is asleep and unable to respond to questions or commands.
- Ensure your child is getting adequate sleep. Sleep deprivation can disrupt deep sleep, so maintaining a consistent and soothing bedtime routine is important (Moore et al., 2006).
- Identify and address any underlying anxieties your child may have.

In conclusion, sleep terrors are a disruptive and often distressing sleep disorder, most commonly affecting children but also seen in adults. While the exact cause remains unknown, factors such as genetics, stress, and irregular sleep patterns may play a role in their development. Although sleep terrors can be frightening, they are generally harmless and tend to decrease with age in children. For adults or persistent cases, treatment options such as stress management, improved sleep hygiene, or therapy may be beneficial. By understanding and addressing the underlying causes, it is possible to reduce the frequency and severity of sleep terrors, thereby improving sleep quality and overall well-being.

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