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Sleep Terror Disorder (aka Night / Sleep Terrors): Information for Physicians

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Summary: Sleep terror disorder (aka night terrors) are characterised by a person having a sudden arousal within hours after falling asleep, with a loud yell or cry. They occur during stages 3 or 4 of non-rapid eye movement (NREM) sleep. Usual age of onset is in childhood, aged 3-8. Prognosis is good as it usually resolves as the child gets older.

Case: “It’s like he’s possessed!”

Neil is a 8-yo brought in by parents due to “really bad nightmares”. For a few weeks now, he has had almost nightly episodes where “he just wakes up screaming, and we’re worried the neighbours will think we’re abusing him.”
Parents try consoling him, but it’s as if he doesn’t recognize them. “We just try to ignore it and eventually he falls back asleep, but we’re exhausted… What’s wrong with him?”

What Are Night Terrors?

Night terrors are characterised by a sudden arousal accompanied by a loud scream or cry within the first few hours (within ½ to 3 ½ hrs) after falling asleep.

They occur during stages 3 or 4 of non-rapid eye movement (NREM) sleep
During a typical night terror, the patient may:

- Sit up in bed
- Scream, classically described as a ‘bloodcurdling’ scream.
- Cry;
- Shout out something, e.g. “They’re coming for me!”
- Have their eyes wide open, yet is not responsive nor awake.
- Not recognize others nor be aware of his/her surroundings. Parents typically try to comfort the child, but they seem non-responsive to parents efforts.
- Run around the house.

Duration: Episodes usually last a few minutes (1-5 minutes) up to 30 minutes.
Afterwards, the child returns to sleep.
When do they occur?

- Most commonly in the first third of the sleep cycle.

Frequency

- May have numerous night terrors a night.

The next morning after the episode, the child typically (but not always) has no memory of the night terror, though they may feel exhausted and confused.
Night terrors are typically more frightening for parents than for the child.

Terms

Other names: Sleep terrors, pavor nocturnus.

Epidemiology

Prevalence

- Estimated to occur in 1-6% of children.

Age of onset

- Most commonly in children between the ages of 2 and 7 years, but may occur for the first time at any age, even in adults

What Causes Night Terrors?

Young age

- Night terrors are a ‘malfunction’ of the normal sleep cycle that occurs because the child’s brain is not yet fully developed.

Environment:

- Sensory triggers, e.g. someone slamming the door loudly.

Triggers

- Stressful life events
- Fever
- Sleep deprivation or anything that affects the child’s sleep (including sleep conditions such as sleep apnea)
- Certain medications that the person is taking
- Changes in the routine or schedule
- Being overtired

In adults, additional causes may include:

- Use of alcohol around bedtime;
- WIthdrawal from recreational drugs;
- Prescription drugs such as antihistamines, decongestants, levodopa, reserpine, beta blockers, antidepressants.

Differential Diagnosis

Other conditions that may resemble night terrors include:

- Night terrors vs. Nightmares

Factor	Night terrors	Nightmares
Age of onset	3-8 years	Any age
Gender	Mainly males	Either
Sleep cycle	Usually occurs in early part of night (i..e first third of the sleep cycle), about 1-4 hours after going to sleep	Usually occurs during the later part of night (latter part of the sleep cycle) during REM sleep and include unpleasant and frightening dreams.
Arousable?	No	Yes
Post episode course	Usually after a night terror, the child returns back to normal and falls back asleep	After a nightmare, the child is typically scared and has a harder time falling asleep
Memory the next morning	The person does not usually recall having a night terror, though may recall a sense of feeling anxious	Person usually can describe the nightmare, “There was this monster chasing me in my nightmare!”

- Nocturnal seizures: Although rare, types of seizures that may resemble night terrors are
    - Temporal lobe epilepsy: A person has brief episodes (30 sec to a few minutes) where they may experience: muscle contractions on the body/face; mouth movements; head movements, while seeing or hearing things, along with strong emotions.
    - Nocturnal frontal lobe epilepsy (NFLE): This is a type of seizure disorder that happens while the child is sleeping. The child may assume a certain posture; have rhythmic, repetitive movements of the arms or legs; rapid uncoordinated movements; wandering; pelvic thrusting; repetitive gestures; making sounds, along with feeling afraid.
    - Unlike night terrors, these are brief (30 seconds to a few minutes) and tend to occur more in older children and adults.
- Post-traumatic stress disorder (PTSD)
    - PTSD is characterized by exposure to an extremely stressful, or traumatic situation.
    - Symptoms include nightmares, flashbacks, that may wake up the person at night.
    - Typically the person will be able to describe or articulate that they were experiencing a nightmare.
- Rapid eye movement (REM) sleep behaviour disorder
    - Sleep disorder in which during REM sleep, the person will physically act out vivid, often unpleasant dreams making sounds, along with sudden arm and leg movements.
- Sleep choking syndrome
    - Sleep disorder where the person wakes up and feels a choking sensation and an inability to breathe, associated with rapid heart rate and severe anxiety.
- Nocturnal panic attacks
    - A nocturnal panic attack is a panic attack that occurs at nighttime, and wakes up the person. The person has panic attack symptoms such as shortness of breath, rapid heart rate, and intense anxiety.
- Sleep walking (aka somnambulism)
    - Getting up and walking around while in a state of sleep.

Are night terrors being seen in an adult?

- If so, then the onset of arousal disorders such as somnambulism and night terrors may reflect an underlying neurologic condition.

Prognosis

As night terrors are felt due to an immature brain, they get better as the child’s brain matures, usually by age six. Nonetheless, some people continue to have night terrors as teens and even adults.

Investigations

Consider polysomnography if the following is suspected:

- REM behavior disorder (additional electromyographic arm leads is required),
  - Often occurs concomitantly with degenerative neurologic illnesses that may require further evaluation.
  - Neurologic evaluation, including imaging of the central nervous system, may be indicated.
- Nocturnal seizures.
  - Suggested by family history, stereotypic nocturnal behaviors and incontinence.
  - Nocturnal seizures can be grand mal, petit mal, partial-complex, vegetative or paroxysmal nocturnal dystonias.
- Obstructive sleep apnea, with symptoms such as daytime exhaustion / hypersomnolence, snoring in a child (as children do not generally snore), increased neck circumference.

Management of Night Terrors

- Parent education: Educate parents about night terrors.
- Sample handout about night terrors https://www.ementalhealth.ca/index.php?m=article&ID=71743
- Scheduled awakenings.
  - Because night terrors happen in the early phases of sleep, one suggested intervention is to wake up the child before the time that s/he has a night terror.
  - Note what time the episodes happen for about a week.
  - About 10-15 minutes before the expected night terror, gently wake up the child, e.g. with a hug or a kiss. Keep the child awake (e.g. have your child sit up, talking with your child) for a few minutes before letting him/her go back to sleep (Frank, 1997; Lask, 1988).
  - After the terrors stop occurring, parents can stop waking the child, which is usually within a week.

Management of Night Terrors: Medications

Are there problems with night terrors despite various strategies? If so, consider medications.

- Trazodone
- SSRIs
  - Paroxetine has been described as being useful for night terrors (Lillywhite, 1994)
- 5-HTP (Bruni, 2004)
  - Study with 5-HTP for night terrors in children
- Benzodiazepines.
  - Physicians usually try to avoid benzodiazepine use in children, however consider their use if there is a risk of physical injury.
  - Options include clonazepam, temazepam, diazepam, or chlordiazepoxide (Schenck, 1996).

Self-Help: What Parents Can Do About Night Terrors

During the Daytime

Ensure a safe physical environment.

- Ideally secure the bedroom so that the child can stay in their bedroom.
- If there are stairs, have safety gates to prevent the child from falling down the stairs.
- Secure windows.

- Secure the doors of the apartment / home so that the child cannot get outside.
- Put medications in a secure place.
- Is the child at risk of getting injured by falling out of their bed? If so, have a lower bed, or just put a mattress on the floor.

Have good daytime routines that promote healthy sleep

- Have a regular bedtime / wakeup time on weekdays and weekends.
- Get healthy amounts of nature time and physical activity each day.
- Do ensure your child doesn't get overtired or overstimulated. Don't let them stay up too late. Don't plan too many activities, or with too much excitement or people.

Do ask if your child is feeling stressed out. Stress doesn't cause night terrors per se, but stress can worsen sleep and thus worsen night terrors.

- Ask your child if there is anything in their life that bugs them or gets them upset? Any particular stresses with daycare, school (teachers, schoolwork, peers, friends, bullies) and home (parents, siblings, and any other family stresses like separation/divorce)?
- Problem-solve some ways to deal with or reduce the stress and/or help the child cope better with them.

Don't tell them about the night terrors. In general, your child is not aware of the night terror, nor are they in a position of control over them, so it usually doesn't help to tell them about the night terrors.

Before Bedtime

- Do keep the same usual regular bedtime routine so that your child can get enough rest.
- Limit substances such as caffeine, alcohol before bedtime
- Limit exposure to bright light before bedtime

During a Night Terror

Do's

- Do observe and stay with your child. If it is just occasional, isolated night terror, just observe your child, and hold him/her until it is over. Usually night terrors resolve quickly, and with parent's support, the child can go back to sleep.
- Are they putting themselves into physical dangerous situations, e.g. falling down stairs, or leaving the home? If necessary, hold them gently to keep them safe.

Don'ts

- Don't wake your child. Don't shake or shout at your child to snap them out of it. Because waking up a child having a night terror can make s/he become more scared or agitated, it is usually better to simply just ensure that s/he is safe, and let him/her return to sleep after it is over.

- Don't panic. Night terrors, terrifying though they appear to others, are not dangerous or harmful per se.

When to Refer

Consider referral to neurology if symptoms are severe, or not improving on their own.

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About this document

Written by health professionals at the Children's Hospital of Eastern Ontario (CHEO).

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