

Understanding Post-traumatic Stress Disorder and Why Good Sleep Matters

By Jin Gyu Kim

PharmD Candidate 2026

The Ohio State University

PTSD Close to Home

Post-traumatic Stress Disorder (PTSD) can affect anyone who has experienced or witnessed a traumatic event, such as a serious accident, assault, fire, disaster, or military combat.^{1,2} Trouble sleeping, flashbacks, irritability, and feelings of fear or guilt are common signs that the body and mind are still reacting to trauma.³ About 8 million adults in the U.S. live with PTSD each year.⁴ For many Ohioans, those experiences do not simply fade with time. When trauma and poor sleep combine, daily life can become difficult to manage, affecting relationships, work performance, and overall well-being.

How Trauma Disrupts Sleep

PTSD is more than emotional distress — it changes how the brain and body react to perceived danger.⁴ The body's natural "fight-or-flight" alarm system remains active even after the threat has passed.⁵ Many people with PTSD experience insomnia, nightmares, or frequent awakenings because the brain begins to associate the bed with anxiety and alertness — a process called conditioned arousal.^{5,6} Without restorative sleep, mood, memory, and concentration suffer, reinforcing the cycle of stress and exhaustion. Restoring healthy sleep patterns allows the brain to process memories and regulate emotions more effectively, making sleep a critical part of PTSD treatment.

The Role of Sleep in Overall Health

Sleep is not just rest; it is recovery. During quality sleep, the brain organizes memories, the heart rate slows, and hormones that control growth, immunity, and healing are released. Chronic sleep loss can affect nearly every system in the body.⁷ For those living with PTSD, insufficient sleep intensifies anxiety, slows recovery, and heightens vulnerability to depression and substance use. Treating insomnia in conjunction with trauma therapy improves overall outcomes and resilience^{5,6}

How Poor Sleep Affects the Body

The body uses sleep as its nightly repair cycle. Without enough of it, performance and health decline in measurable ways:^{1,4}

Brain and Mood

- Impaired concentration and short-term memory
- Heightened emotional reactivity and irritability
- Difficulty managing stress and anxiety

Heart and Metabolism

- Elevated blood pressure and heart rate
- Increased appetite and sugar cravings
- Greater risk of metabolic syndrome and insulin resistance

Immune and Recovery Systems

- Weakened immune response and slower wound healing
- Increased fatigue and reduced exercise tolerance

Steps to Improve Sleep

Even modest improvements in sleep quality such as one additional hour per night can improve energy, mood, and cognitive function. Good sleep hygiene and consistent habits are the foundation for better rest. These small changes, practiced daily, can make a noticeable difference.⁷

- **Keep a regular schedule:** Go to bed and wake up at the same time each day, even on weekends.

- **Create a calm environment:** Keep the bedroom cool, dark, and quiet; limit screen time before bed.
- **Avoid stimulants before bedtime:** Reduce caffeine, nicotine, and alcohol within four hours of sleep.
- **Don't stay in bed awake:** Get up, do something relaxing under low light, and return to bed when you are tired.
- **Practice relaxation:** Try journaling, breathing exercises, or meditation to lower nighttime stress. When these steps are not enough, discuss additional options with your health care provider.
- *Combination care:* Sleep medication should always complement, not replace, behavioral therapy and counseling.

When to Seek Help

Recognizing when to get help is a vital step toward recovery. Ongoing sleep or mood problems are not a sign of weakness — they are medical conditions that deserve care. Seek professional help if:⁸

- Sleep problems last longer than a few weeks
- Nightmares or flashbacks interfere with work, relationships, or safety
- You use alcohol or drugs to fall asleep
- You feel hopeless, detached, or have thoughts of self-harm

Pharmacologic Options for Improving Sleep

When lifestyle changes and behavioral therapies are not enough, medication may support sleep improvement. Table 1 outlines pharmacologic options for PTSD and insomnia.¹⁰ The use of medication should be discussed with health care providers and tailored to an individual patient based on symptoms, comorbid conditions, and patient safety.⁹

Table 1 – Summary of pharmacological options – non comprehensive.¹⁰

Medication	Indication	Dose	Mechanism	FDA Status
Doxepin	Sleep maintenance insomnia	3–6 mg at night	Selective H1 receptor antagonist	FDA-approved for insomnia
Prazosin	PTSD-related nightmares	1–10 mg at night	Central α 1-adrenergic antagonist	Off-label for PTSD/nightmares
Sertraline	PTSD; anxiety/depression	25–200 mg daily	Selective Serotonin Reuptake Inhibitor (SSRI) – increases synaptic serotonin	FDA-approved for PTSD
Fluoxetine	Depression/anxiety; off-label PTSD	10–80 mg daily	SSRI	FDA-approved for depression; off-label PTSD
Venlafaxine XR	PTSD; anxiety/depression	75–300 mg daily	Serotonin and Norepinephrine	Off-label PTSD; approved for anxiety/depression

			Reuptake Inhibition – (SNRI)	
Duloxetine	Depression/anxiety; chronic pain	30–120 mg daily	SNRI	Off-label PTSD
Melatonin	Insomnia/circadian rhythm	1–3 mg at night	MT1/MT2 receptor agonist	OTC sleep aid
Diphenhydramine	Occasional insomnia	25–50 mg at night	H1 receptor antagonist	OTC sleep aid
Doxylamine	Occasional insomnia	25 mg at night	H1 receptor antagonist	OTC sleep aid

Ohio Resources:¹¹

- **988 Suicide and Crisis Lifeline:** Call 988 anytime, 24/7.
- **Ohio Department of Behavioral Health:** Visit dbh.ohio.gov for local programs and support.

Early intervention can prevent months or years of unnecessary distress and improve long-term recovery.

A Path Forward

Healing from PTSD is rarely quick or linear. Some nights will still be difficult, but every small step — whether practicing relaxation, attending therapy, or following a medication plan — moves a person’s recovery forward.

- **Sleep is essential for healing:** Rest restores the body, strengthens memory, and helps the mind regain a sense of safety.
- **Treating both trauma and sleep concurrently** provides the best chance for complete and lasting recovery.
- **Community and professional support** from therapists, pharmacists, and family members makes recovery sustainable.

If you or someone you know is struggling with PTSD or insomnia, reach out for help today. Recovery is possible, and a full night’s sleep can be one of the most powerful tools for healing.

References

1. Mayo Clinic. “[Post-Traumatic Stress Disorder \(PTSD\) - Symptoms and Causes](#).” Accessed November 19, 2025.
2. “[PTSD: By the Numbers](#).” Accessed November 21, 2025.
3. PTSD, National Center for. “[VA.Gov | Veterans Affairs](#).” Program Homepage. Accessed November 21, 2025.
4. “[What Is Posttraumatic Stress Disorder \(PTSD\)?](#)” Accessed November 21, 2025.
5. Isaac, Fadia, Samia R. Toukhsati, Mirella DiBenedetto, and Gerard A. Kennedy. “[Cognitive Behavioral Therapy-Based Treatments for Insomnia and Nightmares in Adults with Trauma Symptoms: A Systematic Review](#).” *Current Psychology (New Brunswick, N.j.)*, July 21, 2022, 1–11.

6. Talbot, Lisa S., Shira Maguen, Thomas J. Metzler, et al. "[Cognitive Behavioral Therapy for Insomnia in Posttraumatic Stress Disorder: A Randomized Controlled Trial.](#)" *Sleep* 37, no. 2 (2014): 327–41.
7. Solodar, Jessica. "[Sleep Hygiene: Simple Practices for Better Rest.](#)" Harvard Health, January 31, 2025.
8. "[Sleep Deprivation and Deficiency - What Are Sleep Deprivation and Deficiency? | NHLBI, NIH.](#)" March 24, 2022.
9. Cleveland Clinic. "[Sleep Deprivation: What It Is, Symptoms, Treatment & Stages.](#)" Accessed November 25, 2025.
10. "[UpToDate® Lexidrug™.](#)" Accessed November 21, 2025.
11. "[Addiction Treatment Program | Department of Behavioral Health.](#)" Accessed November 25, 2025.