

# Lack of Sleep Leads to Lack of Readiness, Experts Say

By David Vergun - Army News Service

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Looking back on the long duty hours required of him as a drill sergeant, sometimes 26 in a stretch, Staff Sgt. Jacob Miller said he realized he has put himself and others in danger more than once.

Miller, who was named the 2015 Drill Sergeant of the Year, spoke at the Army Office of the Surgeon General-sponsored Performance Triad Sleep Summit on Dec. 9.

Since those long days "on the trail," Miller said Army guidance has directed more time for sleep for drill sergeants, but enforcement of that is still needed. He added that a shift in culture and leader engagement are also necessary to change old thinking that going without sleep is the mark of a dedicated worker.





Staff Sgt. Jacob Miller, the 2015 Drill Sergeant of the Year, discusses how lack of sleep degrades performance. He spoke during the Army Office of the Surgeon General-sponsored Performance Triad Sleep Summit, Dec. 9, 2015. (Photo by David Vergun / Army News Service)

Col. Ramona Fiorey, acting director of Quality and Safety, U.S. Army Medical Command at the Pentagon, said senior Army leaders are taking sleep, along with activity and nutrition, seriously now. Those three things are termed the Performance Triad and are considered key factors to increasing performance and resilience and reducing injuries and accidents.

## Effects on Performance

Dr. Thomas J. Balkin, a scientist at Walter Reed Army Institute of Research in Silver Spring, Maryland, described findings from his research on sleep deprivation.

Participants were divided into groups, with some getting nine hours of sleep, others seven, five and three over a seven-day period. Participants were then given psychomotor vigilance tests each day to determine their reaction time to visual stimulus, he said.

The results showed marked declines for the five- and three-hour groups each day. After the seven-day trial period, the participants in all groups were allowed eight hours of sleep and tested again each day. Performance for all groups shot back up very quickly, especially on the first day. However, performance didn't recover to pre-trial levels, except for those who "banked" sleep, or had nine hours of sleep the week before the deprivation.

Balkin noted that other studies from Department of Defense research laboratories have "demonstrated the significant effects of sleep deprivation and fatigue on cognition, attention, reaction time and moral reasoning, all of which are critically important for operational effectiveness."

Research also suggests, he said, that "more is better" when it comes to sleep and that getting more than eight hours of sleep a night establishes a sleep reserve in case sleep is lost one or more nights in the future.

## Sleep Disorders

One in 20 active-duty Soldiers are on sleep medications, according to the Army Office of the Surgeon General, or OTSG, "Health of the Force" report released in December.

Lt. Col. Jacob Collen, a sleep-medicine physician who also specializes in pulmonary issues on Joint Base San Antonio, Texas, told the summit that physicians usually prescribe Ambien, or zolpidem, to Soldiers suffering from insomnia. While it does work in getting Soldiers to fall asleep, zolpidem is a sedative, and it's also known as a hypnotic.

Collen said that since there are only 24 sleep specialists in the Army, serving more than 1 million troops, an attending physician may not realize that there are non-prescriptive treatments that are effective for sleep issues.

Currently, the most effective treatment is cognitive behavioral therapy for insomnia, or CBTi, he said.

Lt. Col. Ingrid Lim, sleep lead for Performance Triad, OTSG also described BBTi, or brief behavioral therapy for insomnia. BBTi is not only effective in treating sleep problems, but can also be used with patients who have medical and psychiatric conditions, and it can be delivered in a primary care setting.

CBTi treatments last several weeks and BBTi less, she said. Both involve encouraging change to thought patterns and behaviors that are the underlying causes contributing to poor sleep.

While CBTi and BBTi are evidence-based and clinically proven to be effective, there are, unfortunately, "watered-down versions" of those therapies that are out there, Collen said. These pseudo-versions cherry-pick from the manual rather than using the full approach.

"We want Soldiers to get the rigorous, evidence-based version," he said. "It would be better to have no treatment at all than to get the wrong one."

The solution, Collen said, is to provide more physicians — not just the 24 sleep specialists — training in CBTi and BBTi. Mobile training teams could be used to educate health care providers, including integrated behavioral health consultants.

Lim said that another common sleep disorder Soldiers suffer from is obstructive sleep apnea, which occurs when breathing stops and then starts in cycles. She said the treatment for that is a Continuous Positive Airway Pressure, or CPAP device, which pumps oxygen into the nasal passage to restore normal breathing.

## **Inadequate Sleep**

Lim said inadequate sleep, meaning less than seven or eight hours, is a huge concern.

The Health of the Force report notes that one-third of Soldiers get five hours or less of sleep per night, and 62 percent of Soldiers get less than seven. The report lists possible effects of inadequate sleep:

- Increased musculoskeletal injuries
- Risk of behavioral health disorders
- Greater susceptibility to illnesses
- Likelihood of developing symptoms of anxiety, depression and post-traumatic stress

And finally, the report notes that “individuals who routinely get five to six hours of sleep perform much like a person with a blood alcohol content of 0.08.”

Lim said there are many steps Soldiers can take themselves to get better rest. The three prongs of the Performance Triad – sleep, activity and nutrition – interact with each other. Limiting junk food and not drinking caffeinated beverages before going to sleep are two examples of how to positively impact sleep, she said.

If Soldiers are not eating right or exercising, sleep quality suffers, so they might want to change what they’re doing, she said.

“Sleep needs to be a Soldier’s resource like ammo,” Lim said. “Are you going to go across the line without adequate fuel for your vehicle, ammo and food? Why are we going to cross the [line of departure] without sleep?”