SLEEP HYGIENE STRATEGIES FOR TACTICAL ATHLETES

leep is one of the most important aspects of recovery and has the potential to influence optimal workplace performance. Tactical athletes, due to the nature of their jobs, may have sleeping problems such as falling asleep and/ or staying asleep, which is indicative of poor sleep quality (3,11). For tactical athletes who are transitioning from deployment to garrison duties, getting quality sleep can seem almost impossible. Police officers, firefighters, and first responders who have shift schedules that rotate frequently may feel like they can never get into a regular sleep schedule. In addition, organizations that are short on personnel often require tactical athletes to work additional shifts or be on-call 24 hr a day, making eight hours of sleep per night very difficult to attain. The intent of this article is to help educate these groups in developing proper sleep hygiene programs for tactical athletes.

Work tasks, whether military missions, fighting wildland fires, or responding to an incidence where a person has barricaded themselves in a building, often require tactical athletes to perform job duties for long periods of time. In some instances, they may even go multiple days with little sleep and in order to continue to perform in these instances, some tactical athletes may consume energy drinks or coffee to stay awake. In some cases, tactical athletes may consume multiple energy drinks or cups of coffee to continue to perform. Consuming multiple energy drinks or cups of coffee may disrupt the body's day/night or circadian cycle, which is important because it is the cycle that governs when a person becomes sleepy, falls asleep, and how they sleep (3).

The variability in tactical tasks may sometimes cause tactical athletes to have trouble falling asleep and/or staying asleep. Working night shifts is part of the job for many tactical athletes and these nightly events can disrupt circadian rhythms, which help to regulate day/night cycles in the body (3).

Police officers, firefighters, and Special Weapons and Tactics (SWAT) teams may have atypical work schedules that may lead to sleep problems. Some may have shift work that changes every week, others may be permanently scheduled for the night shifts. In some departments, SWAT members also work in other divisions, such as traffic.

Tactical athletes may use technology that has screens, such as computer screens. These screens produce blue light which blunts the melatonin response in the user. Cajochen et al. stated, "our data indicate that the spectral profile of light emitted by computer screens impacts on circadian physiology, alertness, and cognitive performance levels," (4). Cajochen et al. also stated, "exposure to monochromatic blue light in the evening lengthens sleep latency," (4). Melatonin is the hormone that the body produces that makes the body sleepy. Using technology that blunts melatonin response may make it harder to fall asleep after a shift (6).

It is important to teach all tactical athletes about sleep hygiene. Some tactical athletes may not allow themselves to recover from deployment or after an extended period of work. If they do not engage in a sleep hygiene program, they may not recover, which may affect training for the next deployment or future job performance. It is also important for them to stop any habits started during extended periods of work (e.g., additional shift work, deployments, etc.) such as consuming multiple cups of coffee or energy drinks in one day, that while potentially necessary during these extended periods may negatively impact their sleep quality during more regular duties.

Commanders should teach all subordinates about sleep hygiene programs and then provide continuous training to maintain the habit. It is important that tactical athletes understand the importance of sleep and the impact it has on their physical and mental wellbeing. Lack of sleep results in fatigue, sleepiness, and decreases in alertness, vigilance, working memory, concentration, and problem-solving ability (8). In summary, poor sleep quality can lead to poor decisions on the job (8). Not all tactical athletes are affected the same way. Plumb et al. stated, "sleep problems were more severe among service members with less education, from lower ranks, with greater combat exposure, and greater depression, anxiety, and PTSD symptoms," (10).

SLEEP HYGIENE PROGRAMS

Sleep hygiene training should be taught to the tactical athlete and their family. It should taught multiple times per year and as part of a dedicated sleep hygiene program. During the beginning of a sleep hygiene program, educational classes should be conducted more frequently so that the information is reinforced. Throughout the year, additional training should be provided and where possible, the hygiene programs should be tailored to the individual group.

SLEEP HYGIENE STRATEGIES FOR TACTICAL ATHLETES

The following are suggested guidelines for a sleep hygiene protocol that can form part of an educational program to be used by tactical personnel.

- Turn off all screens an hour and a half before going to sleep

 If allowed by the department, turn off the computer
 screen on the way back home or to the station
- 2. When possible, go to bed and wake up at the same time every day, even on the weekends
- 3. Do not hit the snooze button in the morning, get up when the alarm goes off
- 4. Exercise regularly every week
- 5. Develop a pre-bed ritual and do it daily (examples could include reading a book or meditating)
- Do not eat a heavy meal, consume alcohol, or drink a lot of liquids before going to sleep
- 7. Avoid napping during the day
- 8. Some tactical athletes have to be in touch 24 hours, seven days a week, 365 days a year; if a phone has to be on, put it in a place where it can be heard but not seen
- 9. Do not do anything else in bed other than sleep

REFERENCES

- 1. Bastien, CH, Morin, CM, Ouellet, M, Blais, FC, and Bouchard, S. Cognitive-behavioral therapy for insomnia: Comparison of individual therapy, group therapy, and telephone consultations. *Journal of Consulting and Clinical Psychology* 72(4): 653-659, 2004.
- 2. Bjorvatn, B, and Pallesen, S. A practical approach to circadian rhythm sleep disorders. *Sleep Medicine Reviews* 13(1): 47-60, 2009.
- 3. Bramoweth AD, Germain A. Deployment-related insomnia in military personnel and veterans. *Current Psychiatry* Reports 15(10): 2013.
- 4. Cajochen, C, Frey, S, Anders, D, Spati, J, Bues, M, Pross, A, et al. Evening exposure to a light-emitting diodes (LED)-backlit computer screen affects circadian physiology and cognitive performance. *Journal of Applied Physiology* 110(5): 1432-1438, 2011.
- 5. Dewald, JF, Meijer, AM, Oort, FJ, Kerkhof, GA, and Bogels, SM. The influence of sleep quality, sleep duration and sleepiness on school performance in children and adolescents: A meta-analytic review. *Sleep Medicine Reviews* 14(3): 179-189, 2010.
- 6. Hill, S. "The Circadian Clock and Physiology." Lecture at Tulane School of Medicine. Fall 2014.
- 7. Kloss, JD, Nash, CO, Walsh, CM, Culnan, E, Horsey, S, and Sexton-Radek, K. A "sleep 101" program for college students improves sleep hygiene knowledge and reduces maladaptive beliefs about sleep. *Behavioral Medicine* 42(1): 48-56, 2016.

- 8. Legault, G, Clement, A, Kenny, GP, Hardcastle, S, and Keller, N. Cognitive consequences of sleep deprivation, shiftwork, and heat exposure for underground miners. *Applied Ergonomics* 58: 144-150, 2017.
- 9. National Sleep Foundation. National Sleep Foundation's updated sleep duration recommendations: Final report. *Journal of the National Sleep Foundation* 1(4): 233-243, 2015.
- 10. Plumb, TR, Peachey, JT, and Zelman, DC. Sleep disturbance is common among service members and veterans of Operations Enduring Freedom and Iraqi Freedom. *Psychological Services* 11(2): 209-219, 2014.
- 11. Seelig, AD, Jacobson, IG, Smith, B, Hooper, TI, Boyko, EJ, Gackstetter, GD, et al. Sleep patterns before, during, and after deployment to Iraq and Afghanistan. *Sleep* 33(12): 1615-1622, 2010.
- 12. Wang, J, Wei, Q, Wu, X, Zhong, Z, and Li, G. Brief behavioral treatment for patients with treatment-resistant insomnia. *Neuropsychiatric Disease and Treatment* 12: 1967-1975, 2016.

ABOUT THE AUTHOR

Canaan Heard served for 10 years in the United States Marine Corps Reserves as a machine gunner and was deployed in support of Operation Iraqi Freedom in 2007. He has a Master's degree in Physiology from Tulane School of Medicine. He is the founder and Chief Executive Officer (CEO) of Protac Fitness, and is the Executive Director of the Protac Foundation. Heard's research interests are in human performance, human physiology, and post-deployment health.









TRX®

INTRODUCING TRX FUNCTIONAL TRAINING TOOLS

SETTING THE STANDARDS IN MOVEMENT AND GEAR





TRX PLYO BOX





STRENGTH OF AMERICA AWARD™

Does your high school strength and conditioning program continually strive to ensure the safety of young athletes?

Do you aim to promote and educate on best-practices when training on the field and in the weight room?

The NSCA, in conjunction with the President's Council on Fitness, Sports & Nutrition, wants to recognize you and your school for your efforts with the Strength of America Award!

Your program can help set the bar for what a safe and effective high school strength and conditioning program should be.

