

# FRIENDS OF NVT

OFFICIAL NEWSLETTER OF INNEURACTIVE



## INTRODUCTION

Welcome to the latest edition of the Friends of NeuroVisual Training Newsletter! As we march forward into this exciting year, it's time to delve into an aspect of training that often flies under the radar yet is fundamental to our success in NeuroVisual Training (NVT): the power of sleep.

In Issue 5 of Volume 10, we turn our focus to the pivotal role that sleep plays in enhancing NVT performance and facilitating recovery. This is akin to the importance of rest in traditional strength and conditioning programs. Just as muscles need time to repair and grow after a workout, our brains and visual systems also require quality rest to reap the full benefits of NVT.

Our feature article, "The Impact of Sleep on NeuroVisual Training," provides an in-depth exploration of sleep and its impact on cognitive and visual functions. We delve into how the brain consolidates learning and memories during sleep, and how this process is critical for improving the skills developed in NVT programs.

Moreover, this issue includes a practical 'How To' section that offers readers a general, easy to follow, sleep hygiene regime. This regime is designed to optimize your sleep environment and habits, ensuring that you get the restorative sleep needed to boost your NVT performance and recovery. Whether you're an athlete looking to sharpen your visual skills, or someone engaged in cognitive demanding activities, these tips will be invaluable.

As we explore the fascinating intersection between sleep and NeuroVisual performance, we invite you to embrace these insights and integrate them into your training regimen. Let's journey together towards achieving not only peak visual and cognitive performance but also a balanced and healthy lifestyle.

Embrace the night, enhance your sight – Happy reading, and sweet dreams!

### WHAT'S IN OUR LATEST ISSUE:

- Introduction
- The Impact of Sleep on NeuroVisual Training – Kevin Kohmescher
- "How To": Developing Sleep Hygiene to Support NVT – Jon Vincent
- Announcements
- Disclaimer



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## The Impact of Sleep on NeuroVisual Training

Sleep is a complex physiologic state and is critically important for cognitive function. We know that lack of sleep is detrimental to humans and animals, creating cognitive deficits across the board ranging from memory to speed of processing and, occasionally, deficits in verbal fluency and creative thinking. Long story short, sleep is essential for the brain.

Studies show that regular exercise is healthy for improved sleep. While we do NVT, we exercise our eyes and brain. Just like our pectorals' skeletal muscles, the eyes' extraocular muscles can be trained, maintained, and fatigued. On top of this, so can the brain as we attempt to learn and grow each day. To do NVT is to do work, and that work is healthy.

Conversely, sleep helps NVT. Memory and cognition deficits are directly linked with sleep deprivation. To continue to get good sleep is to allow your brain and eyes - as you would the rest of your body - to recover from the work it has performed. Under-sleeping with continued work will only lead to fatigue and poor performance. Sleep and memory have a complex love triangle with processing. Getting more rest allows you to process new information better, so sleeping after learning new things can help consolidate this new information into memories.

With NVT, we constantly de-wire and re-wire new pathways in the brain, and sleep plays an important role in forming and maintaining the pathways while additionally impacting how nerve cells communicate. Sleep deprivation can impact the maintenance crews of these neural pathways, riddle the brain with potholes, and scatter debris on the road.

Additionally, better sleep schedules have been linked to improved performance in the weight room. Sleep helps repair muscles, regulate protein synthesis, replenish glycogen, and manage inflammation, amongst other processes. It stands to reason that when we exercise our brain and eyes, we need similar repair / replenishing processes to recover fully. Though NVT has no one rep max, it is important to note that the individual used their voluntary (skeletal) muscles for the best performance when sleep was maintained.

Cognitively, NVT is a precursor for better sleep and health. As shown in the elderly with insomnia, cognitive training through games - just like our NVT Card Deck - assisted individuals with insomnia and other sleep disturbances. With better sleep latency (time to fall asleep) and efficiency (recovery through sleep), regular NVT becomes a tool for success. However, just like vigorous exercise, performing NVT close to bedtime is not beneficial to allow the brain proper time to prepare for rest.

Moving forward, NVT and sleep can be considered a positive feedback loop. It may be easier to start with the NVT side. However, performing effective NVT or getting better sleep leads to better performance and rest long-term. Both should be considered essential for a healthier lifestyle, especially for elite-level athletes and older adults.

# How To: Developing Sleep Hygiene to Support NVT

While NVT sharpens your visual and cognitive skills, it's the quality of your sleep that truly cements these gains. Proper sleep hygiene is not just about getting more sleep; it's about getting the right kind of sleep. Let's dive into how you can optimize your sleep environment and habits to support and enhance your NVT experience.

## Sleep Hygiene Guide:

### **1. Regularity in Sleep Schedule:**

Consistency is key. Train your body's internal clock by going to bed and waking up at the same time every day, even on weekends. This regularity not only helps in falling asleep more quickly but also ensures more restorative sleep.

### **2. Mindful Light Exposure:**

Our exposure to light significantly influences our sleep-wake cycle. Limit exposure to screens at least an hour before bedtime to reduce blue light interference. Consider using blue light filters on your devices and embrace dim, warm lighting in the evenings to prepare your body for sleep.

### **3. Optimal Sleep Environment:**

Your bedroom should be a sanctuary for sleep. Keep it cool, dark, and quiet. Invest in comfortable bedding and consider using blackout curtains or eye masks to block out light.

A noise machine or earplugs can also help in maintaining a quiet environment.

### **4. Pre-Sleep Relaxation Rituals:**

Develop a pre-sleep routine to signal your body it's time to wind down. This could include reading, light stretching, meditation, or listening to calming music. Avoid engaging in stressful activities or heavy exercise close to bedtime.

### **5. Diet and Fluid Intake:**

Be mindful of what you consume close to bedtime. Avoid heavy meals, caffeine, and alcohol, as they can disrupt your sleep cycle. Also, moderate your fluid intake to prevent disruptive middle-of-the-night bathroom trips.

### **6. Manage Sleep Disruptions:**

If you wake up in the night, avoid engaging in activities that can stimulate your mind, like checking your phone. If sleep eludes you, try relaxing activities like deep breathing or visualization until you feel sleepy again.

### **7. Daytime Naps:**

If you're a napper, keep it short. Long naps or those late in the day can interfere with your nighttime sleep. A power nap of 20-30 minutes can be refreshing and won't disrupt your sleep cycle.

**8. Physical Activity:** Regular physical activity can promote better sleep, especially if it's done earlier in the day. Exercise can improve both the quality and duration of your sleep, contributing to better NVT performance.

By fine-tuning your sleep hygiene, you're setting the stage for successful NeuroVisual Training. Good sleep habits don't just improve your NVT outcomes; they enhance your overall health and wellbeing. Remember, quality sleep is a pillar of peak cognitive and visual performance. Embrace these practices and notice the difference in your focus, clarity, and NVT results. Sweet dreams and successful training!

## Announcements

Neurobiks Class is now offered at a new time! We are now offering classes from 11AM-12PM, Monday - Friday @ CrossFit Cincinnati in Blue Ash!

Sign up for your free trial today: [neurobiks@in neuractive.com](mailto:neurobiks@in neuractive.com)!

Check out our store, <http://www.in neuractive.com/shop> ! We regularly add new products and are excited for the upcoming launch of our NVT warmup panels.

We encourage our Friends of NeuroVisual Training community to engage with these enriching resources. Your commitment to staying updated fuels the advancement of our field, and for that, we are sincerely appreciative.

Disclaimer: Nothing in this communication should be construed as a practice of medicine, an endorsement, or political action. The opinions are the opinions of the authors.