

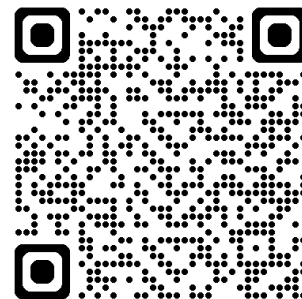


Preventing Fatigue-Related Crashes: A Practical Approach with the NAFMP

California Trucking Association

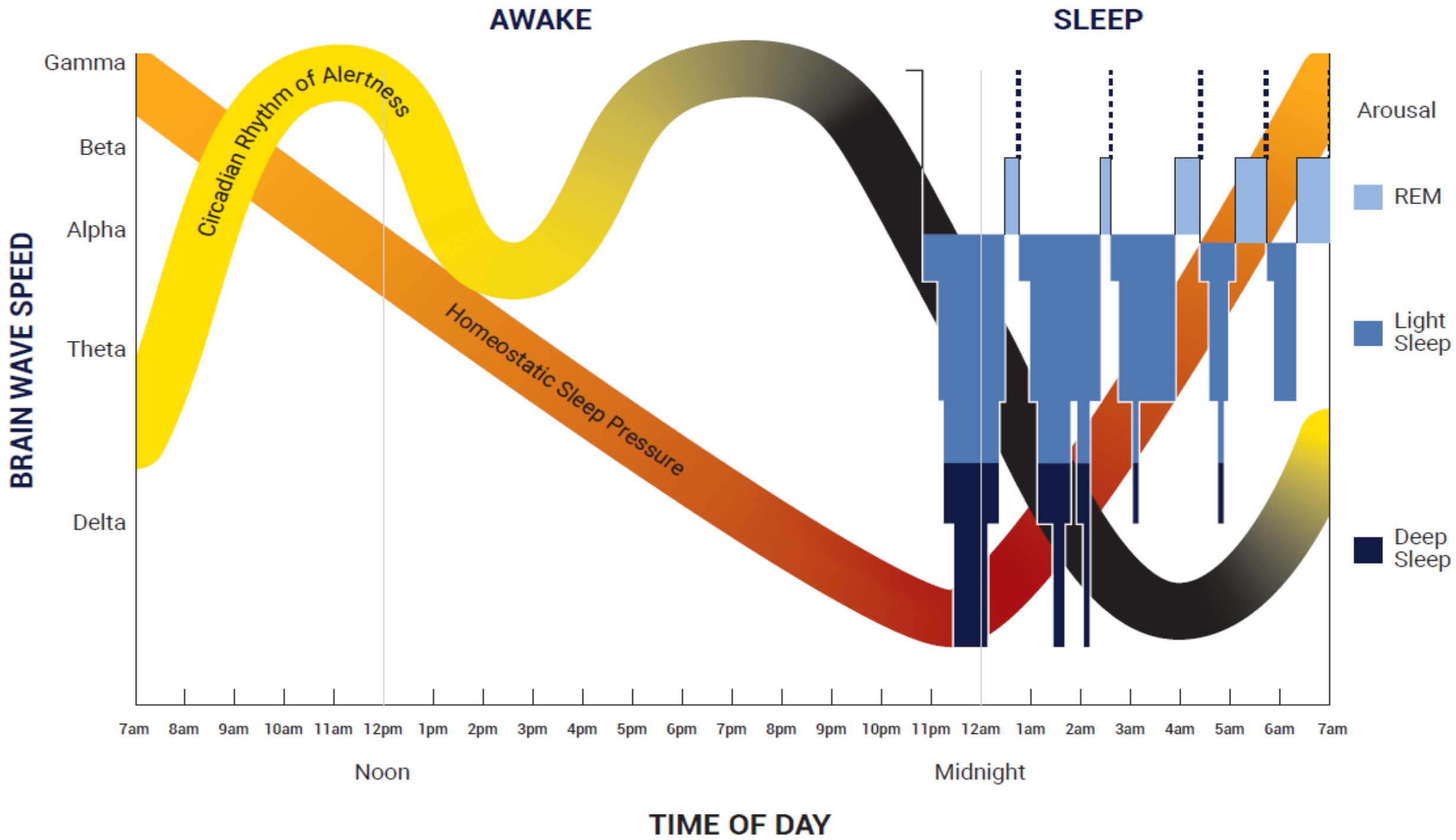
July 22, 2026

Get this slide deck at NAFMP.org/events



1. Sleep Biochemistry
2. Fatigue Management Program (FMP)
 - Safety Culture
 - Fatigue Risk Management System (FRMS)
 - ✓ Sound Scheduling
 - ✓ Detection Technology
 - ✓ Sleep Disorders
3. Next Steps

Sleep Biochemistry



Fatigue is a physiological state that forces the brain to prioritize survival over demanding cognitive functions

Fiduciary Duty for Lifetime Earnings and Profits



- Lower Fatigue Related Crashes
- Lower Legal Liability Exposure
- Cost Reduction
 - Driver retention
 - Medical costs
 - Maintenance
- Labor force
 - Safer
 - More productive
 - Healthier & happier
- Articles
 - Nailing the Top Ten Industry Issues through Fatigue Management
 - [Part One](#)
 - [Part Two](#)

Fatigue Management Program

Fatigue Management Program (FMP)



➤ Safety Culture

- 1) Education
- 2) Training
- 3) Continuous communications – Including partnerships

➤ Fatigue Risk Management System

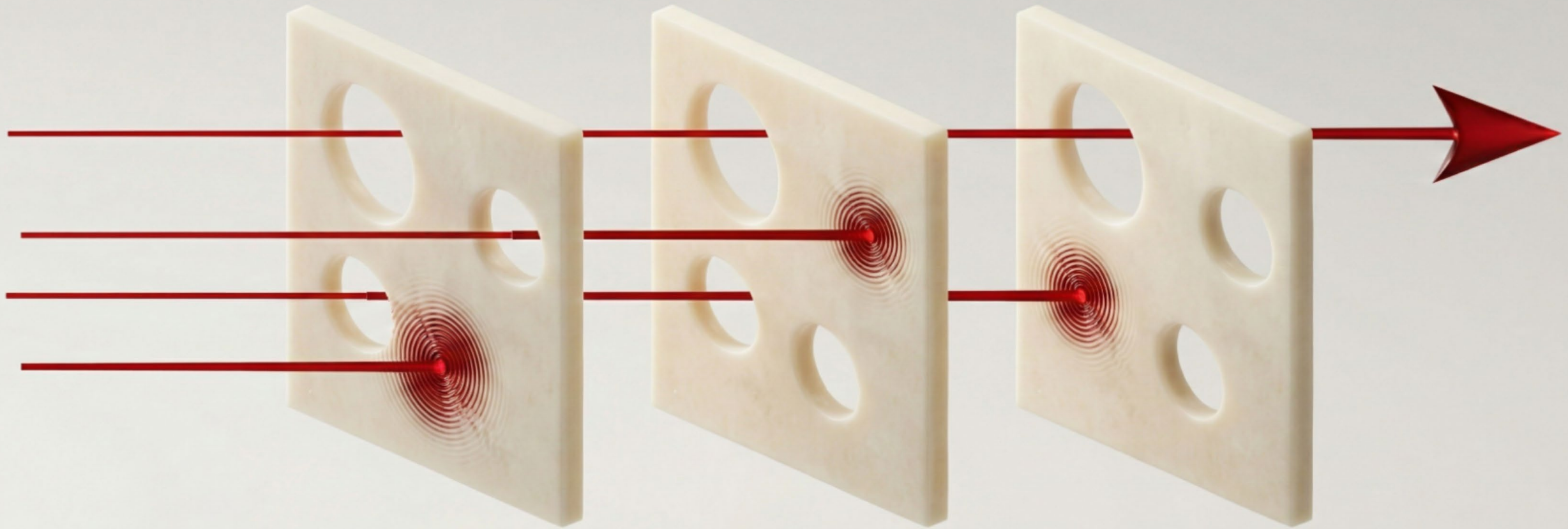
- 1) Operations
- 2) Identify risks with processes and controls
 - Predictive, proactive, reactive
 - Sound scheduling, sleep disorders management program, fatigue detection technologies
- 3) Risk assessment
- 4) Measures and countermeasures
- 5) Evaluation

[FMP Template](#)

[Module 2: Safety Culture and Management Practices](#)

[Implementation Manual](#)

The Swiss Cheese Model

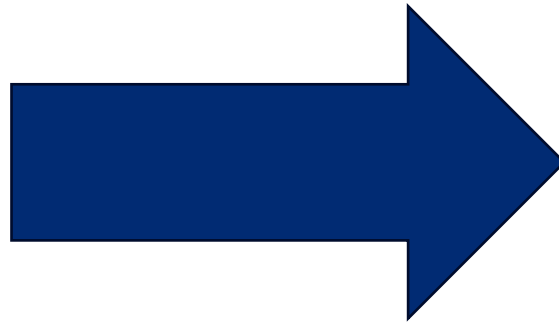


Swiss Cheese Layer: Safety Culture

Safety Culture



- Knowledge
- Skills
- Attitudes



- ✓ Behavior Change
- ✓ Elimination of Stigmas

Education & Training Courses



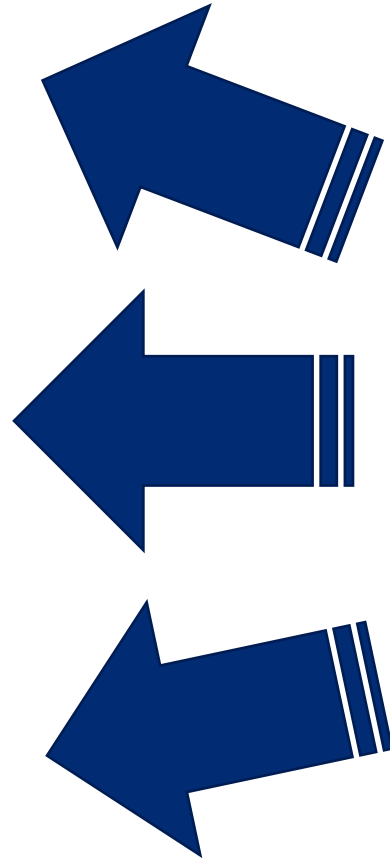
eLearning Platform & PowerPoint Downloads

- Motor carrier executives and managers
 - Module 1 (Intro), 2 (Safety Culture), 7 (Sleep Disorders), 10 (Technologies)
- Motor carrier trainers
 - Module 5 (Train-the-Trainer)
- Motor carrier dispatchers and driver managers
 - Module 9 (Scheduling)
- Freight Shippers, Receivers, Brokers
 - Module 6 (Role of shippers & receivers on driver safety)
- Drivers
 - Module 3 (Driver Ed), 8 (Sleep Disorders) & 9 (Scheduling)
- Driver Families
 - Module 4 (Family Ed)

Wellness Affects All Body Systems



- Messaging
 - Nervous
 - Endocrine
 - Immune
 - Reproductive
- Plumbing
 - Respiratory
 - Cardiovascular
 - Digestive
 - Urinary
- Support
 - Skeletal
 - Muscular
 - Integumentary



- Sleep Hygiene ([Webinar](#))
- Positive Relationships ([Webinar](#))
- Mindfulness ([Webinar](#))
- Nutrition ([Webinar](#))
- Exercise ([Webinar](#))

Objective Signs of Fatigue



- Eyelid drop or loss of focus
- Yawning
- Wandering, scattered or disjointed thoughts, dreamlike visions
- Head movements, gentle swaying, jerking
- Reduced field-of-view (AKA: tunnel vision, highway hypnosis, white line fever)
- Fidgeting, shifting positions, adjusting windows & HVAC
- Progressive weaving, crossing rumble strip, drift and jerk steering
- Delayed or incorrect responses
- Microsleeps

Fatigue Management Strategies



- General
- At home
- On the road
- Night driving
- Changing time zones
- Team driving

[Module 3: Driver Education](#)

More on Safety Culture



- [Webinar: Safety Culture: Transforming Fatigue Management from a Liability into a Competitive Advantage](#)
- [Article: Don't Stay in the Expensive Blind Spot of Stigmas](#)
- [Module 2: Safety Culture and Management Practices](#)

Swiss Cheese Layer: Sound Scheduling and Routing Practices

Scheduling Practices



- Sound scheduling and routing
- Time of day, recent sleep, continuous hours awake, cumulative sleep debt
- Shared responsibility mitigating driver fatigue in work schedules
- Regular schedules
- Forward vs backward scheduling
- Consider travel time to employment location
- Consider rests and naps during work shift
- Maximum of 16 hrs. per day or less
- Maximize benefits of scheduling tools
- Develop customized strategies for managing fatigue

Webinar: The Scheduling Puzzle: Sleep Science and Driver Fatigue

Module 9: Driver Scheduling and Tools

Swiss Cheese Layer: Fatigue Detection Technologies

Fatigue Management Technologies Types

1. Scheduling & Trip Planning
2. Fitness for Duty Testing
3. Performance Monitoring
4. Driver Monitoring

Fatigue Technology Best Practices



- 1) Must be integrated into overall FMP
- 2) Take full advantage of the technology capabilities
- 3) Develop well-defined protocols
- 4) Explain the role of technology to drivers
- 5) Create meaningful driver expectations
- 6) Present consistent and detailed feedback to drivers
- 7) Maintain a positive atmosphere
- 8) Reinforce that safety is everyone's responsibility

More on Fatigue Detection Technology

- [Webinar: The Alertness Toolkit – A Motor Carrier’s Guide to Fatigue Management Technologies](#)
- [Solution Series Webinars](#)
- [Module 10: Fatigue Monitoring and Management Technologies](#)

Technology Catalog Sources



- 2024 Good-Practice Guidance - To support industry uptake of rapidly emerging Fatigue and Distraction Detection Technologies (FDDT)
 - [By Australia's National Heavy Vehicle Regulator \(NHVR\)](#)
- 2020 Review of Commercially Available Devices to Detect Fatigue and Distraction in Drivers
 - [By Institute for Road Safety Research in the Hague, Netherlands](#)
- 2019 Commercial Motor Vehicle Operator Fatigue Detection Technology Catalog and Review
 - [By National Surface Transportation Safety Center for Excellence](#)

Swiss Cheese Layer: Sleep Disorder Management

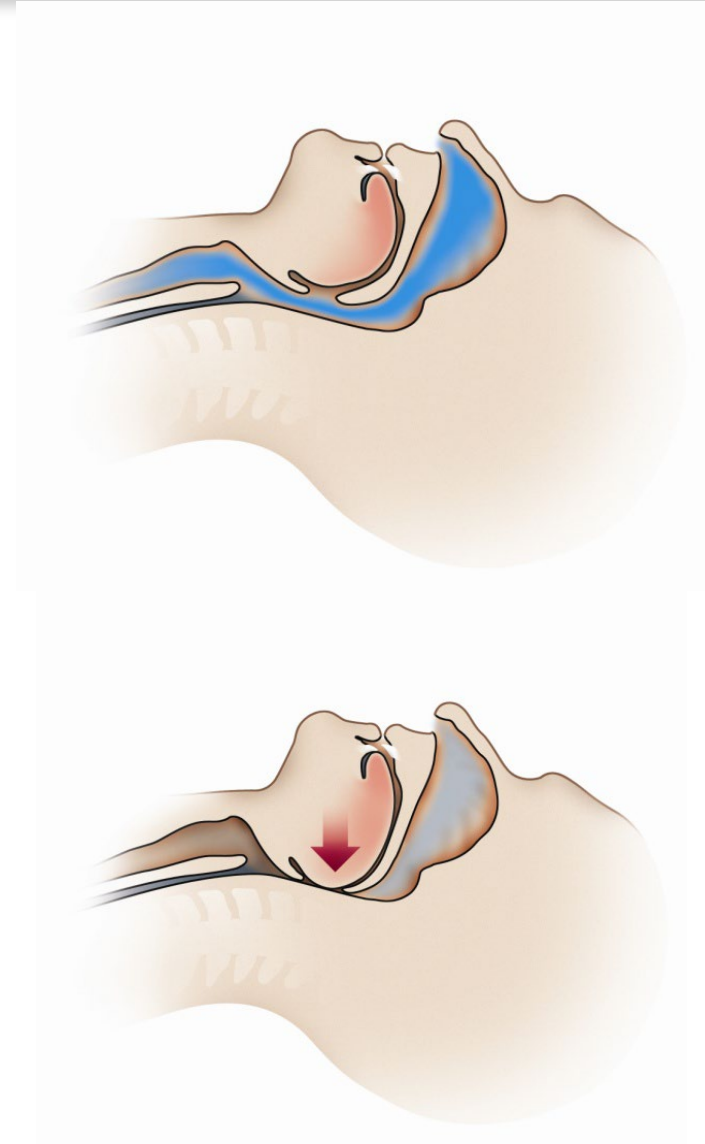
Fatigue Susceptibility



- Sleep Deprivation
 - Sleep-related behaviors
 - Sleep hygiene
- Individual Differences
 - Genetic variations
 - Health & fitness
- Medical conditions
 - Medications
 - Sleep disorders
 - Insomnia, narcolepsy, restless leg syndrome, sleepwalking, abnormal circadian rhythms, obstructive sleep apnea (OSA)

Obstructive Sleep Apnea

- **Apnea** = stoppage of breathing lasting 10+ seconds
- OSA = breathing stops repeatedly during sleep due to closures of the upper airway
- Apnea rate per hour:
 - <5 = normal
 - ≥ 5 = OSA
- OSA severity (mild, moderate, severe) based on rate
- Some people with severe OSA can have 100 per hour



Sleep Disorders Management Program



1. Education
2. Screening
3. Testing
4. Treatment
5. Monitoring

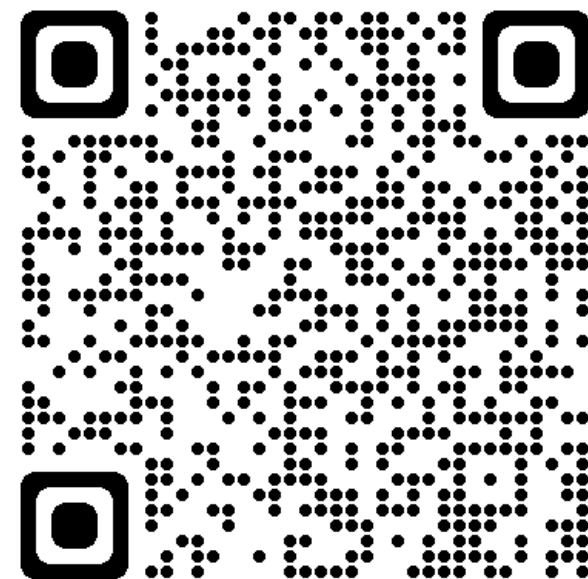
More on Sleep Disorders Management

- [Webinar: Guide to Establishing a Sleep Disorders Management Program](#)
- [Module 7: Motor Carrier Sleep Disorders Management](#)
- [Module 8: Driver Sleep Disorders Management](#)

Next Steps



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NAFMP Website Free Resources



- Tools
 - FMP Template
 - Implementation Manual
 - ROI Calculator
- Courses
 - eLearning Platform
 - PowerPoints with and without audio
 - For carrier's executives, safety managers, dispatchers, instructors, drivers, driver's families, shippers & receivers
- Webinars, Info Sessions & Articles
 - Gallery
 - List
 - Categories
 - Sign up for article notifications
- Podcast
 - The NAFMP Pod
 - Available from eight platforms
- Events
 - Download individual event
 - Subscribe to Calendar of future events

Connect with me to coordinate a free fatigue management session for your organization



Rodolfo Giacomani

Fatigue Management Specialist
Commercial Vehicle Safety Alliance

Rodolfo.Giacomani@CVSA.org

202-998-1830



Scan vCard and add me to your contacts





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