

DRIVER FATIGUE

Physiology, safety risks, and evidence based strategies for fatigue prevention.

PRESENTED BY DR. NATHAN MARCH



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INTRODUCTION

Asclepius Borealis
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AGENDA

What is Fatigue?
Why am I so tired?
Why is fatigue dangerous?
Shift Work Disorder + Solutions
Sleep Screening
Sleep Hygiene

MOIBLITY INTERMISSION

Stretching/Movement
Basic Nutrition
Added Sugars, Caffeine + Hydration



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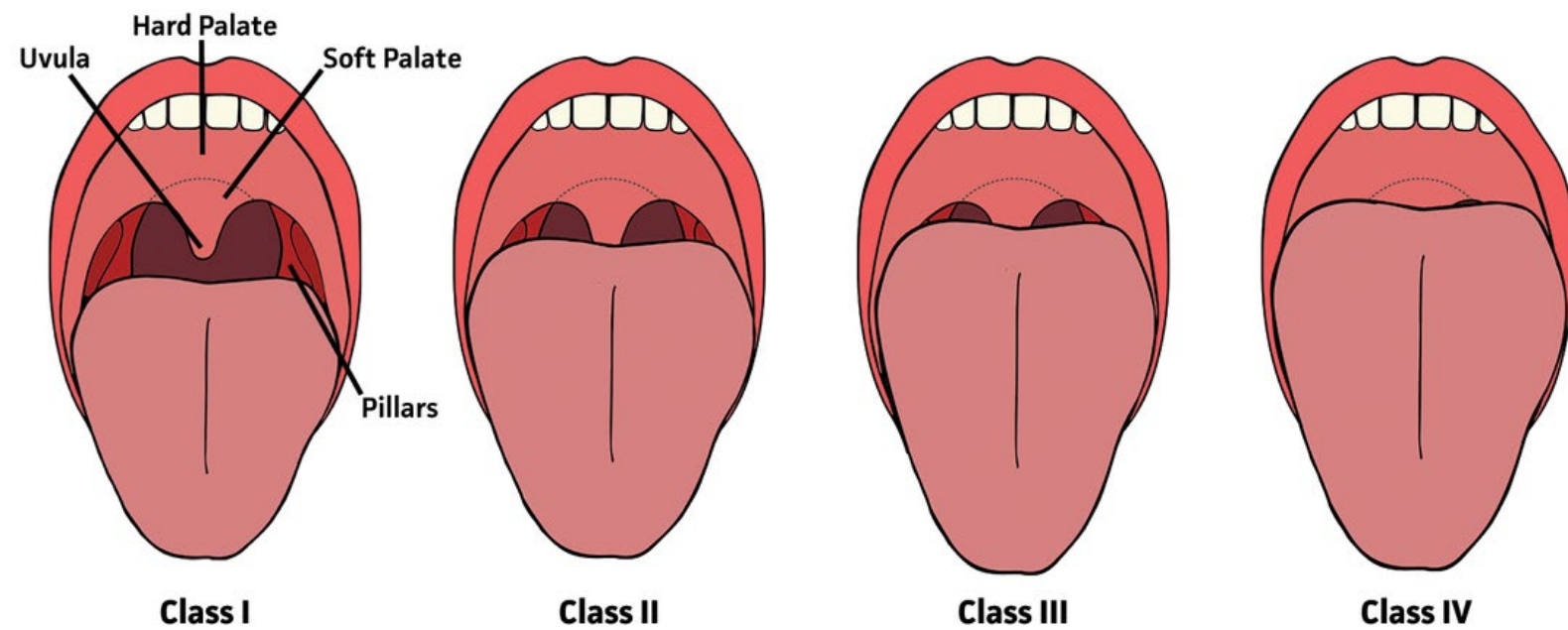


What is fatigue?

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- Difficulty or inability to initiate activity
- Reduced capacity to maintain activity
- Difficulty with concentration, memory, and emotional stability
- An initial assessment at your doctor visit to help identify root cause of fatigue include:
 - Comprehensive history and physical examination w/ screenings:
 - PHQ9 (depression)
 - STOP BANG (sleep apnea)
 - Basic laboratory studies (Hgb, CBC, Lipid, A1C%, etc.)
 - Updated cancer screenings (based on age)



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What is making me tired?

- Medications
 - Sedatives, Stimulants
- Obstructive Sleep Apnea
 - STOP BANG, Mallampati, Sleep Study, CDL requirements
- Sleep Disturbances
 - Insomnia
 - Epworth Sleepiness Scale
 - REM Cycle Sleep
- Diet and Hydration (will touch on this shortly)

What Do You Do if OSA Is Suspected: STOP-BANG

► STOP Questionnaire

- Snoring
- Tiredness
- Observed you stop breathing
- Blood Pressure

► BANG

- BMI >35
- Age >50
- Neck circumference >40 cm (>15.7")
- Gender male

High risk: Yes to ≥ 3 items → Refer for sleep testing





Why is fatigue dangerous?



“

Reductions in performance, effectiveness, and productivity, increased errors and do -overs, absenteeism, “presenteeism,” wherein the worker is on task but performing below capacity, ineffective teamwork, immoral or unethical behavior, reduced job satisfaction, degr ade d quality of life, decreased morale, reduced safety, workplace accidents and injuries, motor vehicle crashes during the commute, and high -pro file industrial catastrophes.

(Fosnocht & Ende, 2025)

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Shift Work Disorder

Shift Work Solutions:

Sleep Scheduling, Anchor Sleep



Measures to improve sleep after a night shift include a regular sleep schedule with a period of overlap on off days (ie, anchor sleep), light - blocking shades, and ambient noise control. If family or social responsibilities prohibit one seven - to nine -hour sleep period, a regularized three - to four -hour morning "anchor" sleep with a second variably timed sleep period is recommended. (Gurubhagavatula et. al, 2021)

EPWORTH SLEEPINESS SCALE

How likely are you to dose off or fall asleep during the following situations?

0 = would never doze 2 = moderate chance of dozing
1 = slight chance of dozing 3 = high chance of dozing

	Score
1. Sitting and reading	0 1 2 3
2. Watching TV	0 1 2 3
3. Sitting, inactive in a public place	0 1 2 3
4. As a passenger in a car for an hour without a break	0 1 2 3
5. Lying down to rest in the afternoon when circumstances permit	0 1 2 3
6. Sitting and talking to someone	0 1 2 3
7. Sitting quietly after a lunch without alcohol	0 1 2 3
8. In a car, while stopped for a few minutes in the traffic	0 1 2 3
Total	



Please take a moment to fill this out



Sleep Hygiene Solutions



(Lindeberg, 2023)



Mobility
INTERMISSION:

IF YOU COULD
PLEASE STAND UP



Movement



Moderate physical activity



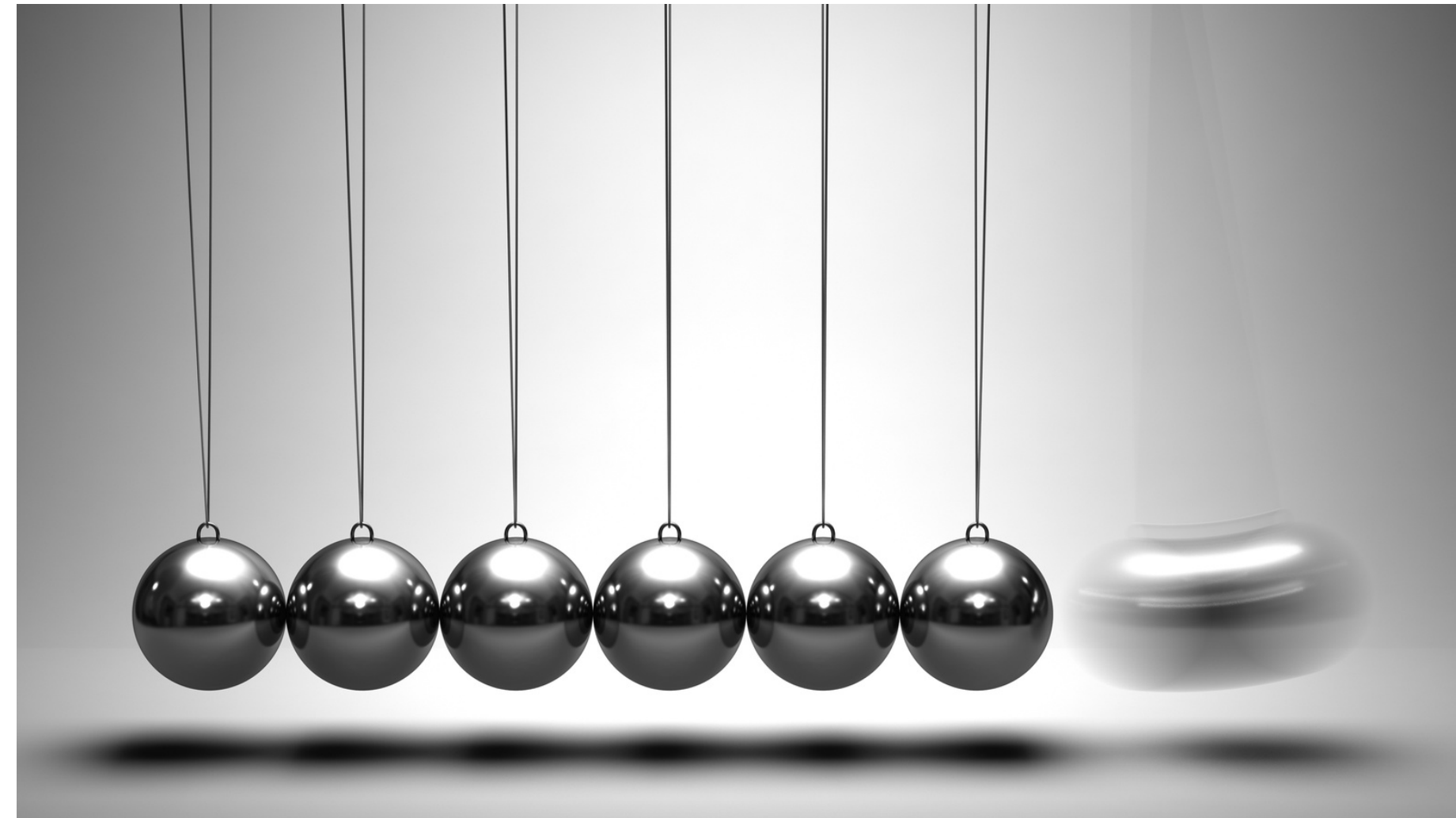
Promotes melatonin production



150 minutes of moderate -intense exercise per week



Improves mood, reduces stress





Basic Nutrition



Protein

Stabilizes blood sugar, promotes lasting satiety, and aids muscle repair and growth.

Carbohydrates

When glucose supply is low, it can lead to mental fatigue, irritability, and an inability to concentrate.

Fats

Fats contribute to feelings of fullness, helping to stabilize blood sugar and prevent the rapid energy spikes and crashes associated with high -sugar, low -fat meals.





Added Sugars, Hydration + Caffeine



Added Sugars

Recommended daily limit:

Men: <36 g

Women: <28 g

(American Heart Association, 2025)

Excess sugar → ↑ risk of weight gain, diabetes, heart disease

Hydration

General guideline:

Men: ~3.7 L (≈15.5 cups)
fluids/day

Women: ~2.7 L (≈11.5 cups)
fluids/day

Adjust based on: weather,
physical activity, medications,
and health conditions

Caffeine

Safe daily intake: up to 400 mg (≈4 cups of coffee)

Too much can cause:

- Anxiety, restlessness
- Insomnia, elevated heart rate
- Headaches, GI upset





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Where to get evaluated?

- Many employees in rural areas struggle to find or access a primary care provider.
- Our clinics are designed to remove those barriers by bringing accessible, preventive, and patient centered care directly to the workplace.
- We focus on screenings, chronic condition management, and everyday health concerns. Helping employees stay healthy, save time, and avoid unnecessary ER or urgent care visits.
- By making care convenient and approachable, we support both employee well -being and employer cost savings.



Thank you!



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Healthcare Access Solutions



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