



The Business of Sleep: Breaking the Cycle of Stress and Poor Sleep

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**"I can get by on 4 hours
of sleep"**
-John, age 27

Agenda

- **The Science of Sleep: The Sleep Cycle Deposition**
- **A Sleepless Culture: In Defense of Sleep**
- **Sleep and Stress: The Sentencing of Sleep Deprivation**
- **Sleep Disruptors and Effects: The Verdict is in & A Plea For Better Rest**
- **Building Your Own Sleep Toolbox: Making a Case for Bedtime**

The Sleep Cycle

Deposition



The Culture of Sleeplessness

- The badge of honor
- "I'll sleep when I'm dead"
- Expectations to be connected 24/7
- Lawyers are one of the most sleep deprived professions

SLEEP POSITION ACCORDING TO YOUR PROFESSION



Doctor

Teacher

Engineer

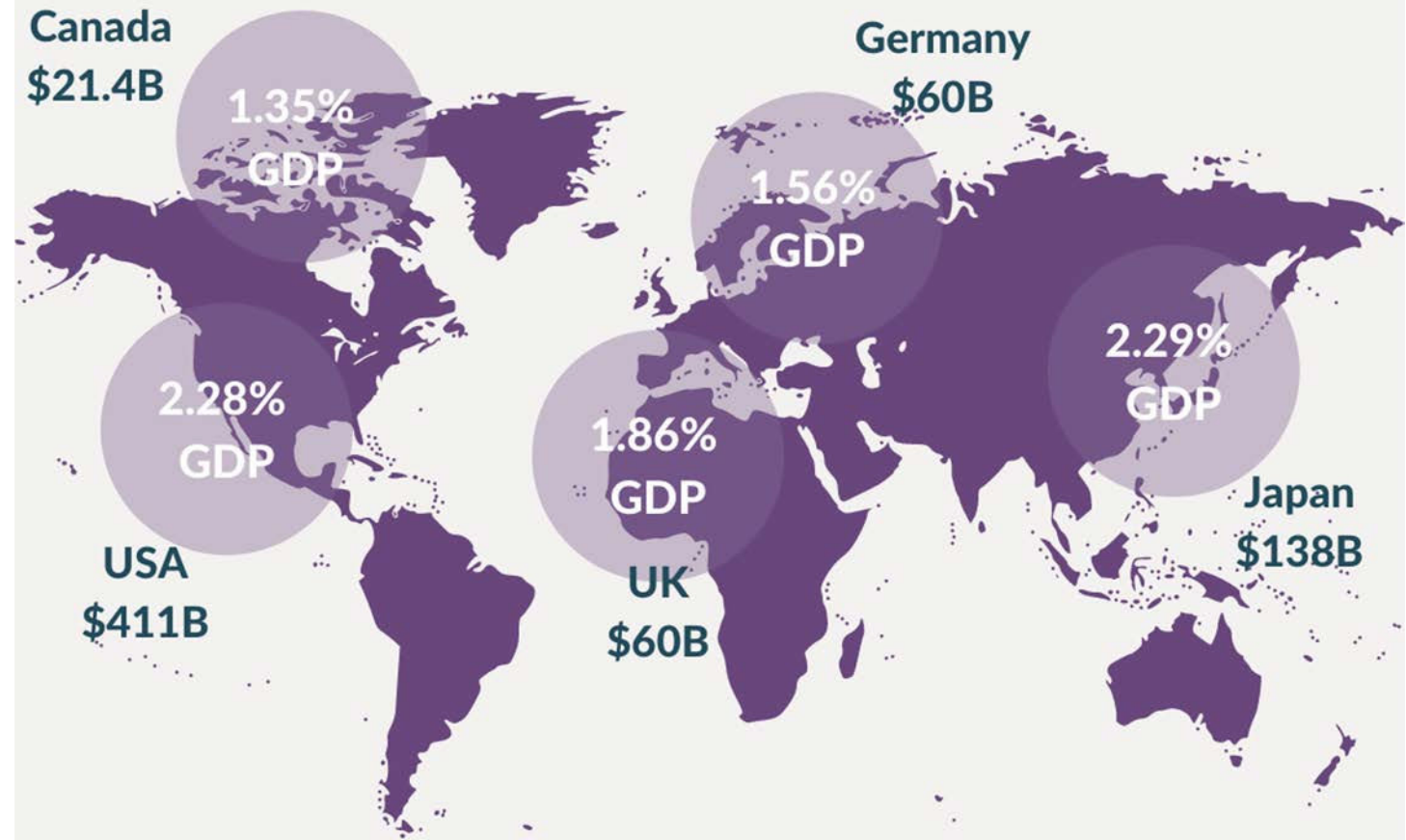
Lawyer

A Sleepless Culture

Researchers found that Canada is losing about 80,000 working days per year as a result of sleep deprivation among its working population.

According to the RAND corporation, if individuals who normally sleep 4 -5 hours per night started sleeping 6-7, the result would potentially be \$12B annual increase to the Canadian economy.

Map showing the economic cost of insufficient sleep





Justice Never Sleeps

.....But an hour makes a difference!

Mood

Alertness

Memory

Concentration

Reaction Times

Judgement

Overeating

Decision Making

Immunity

March 14th was “Sleepy Monday”


(The Monday following DST)

Sleep & Performance

The Sentencing of Sleep Deprivation

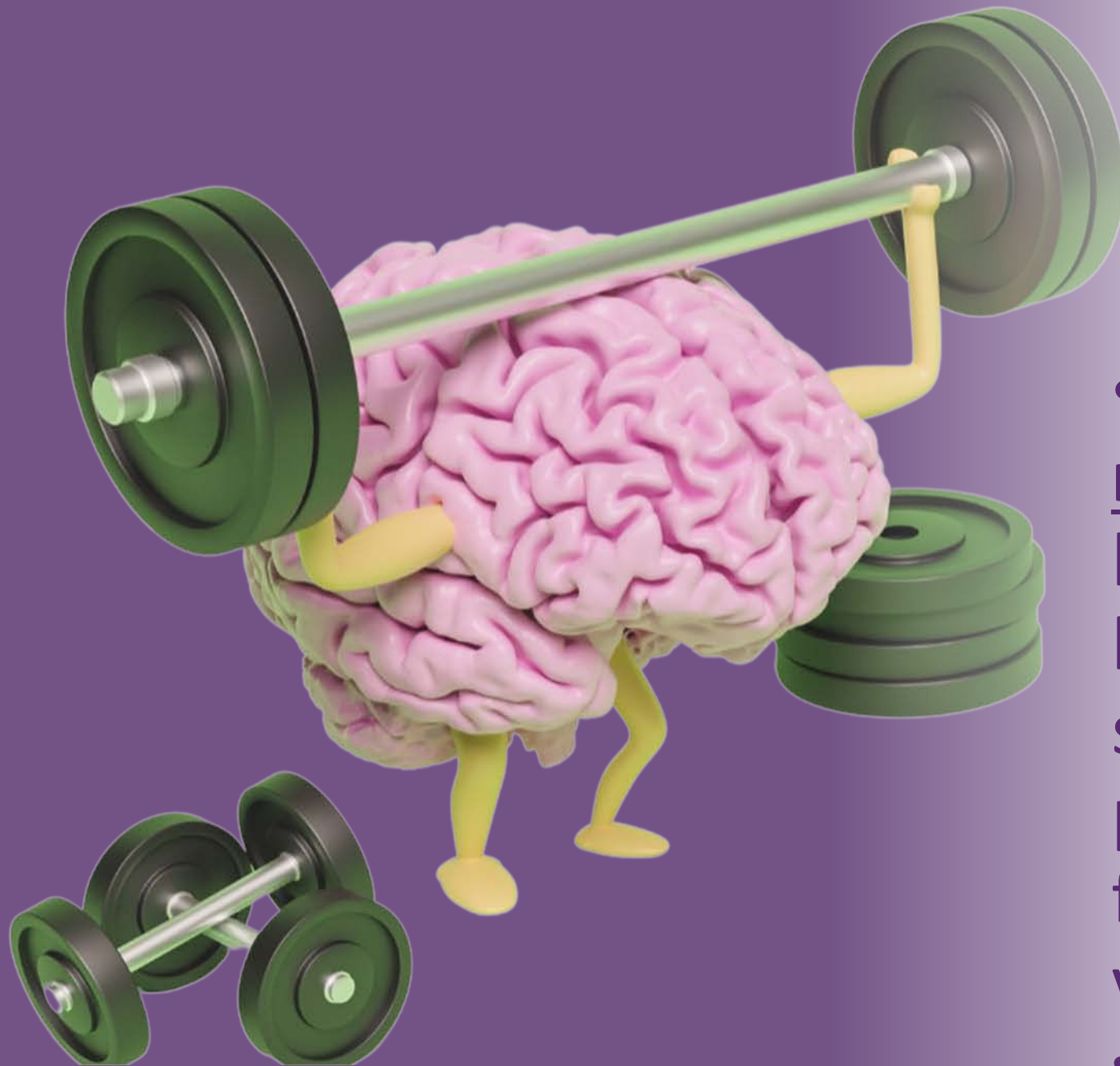
- Studies have shown that going too long without sleep can impair your ability to drive the same way alcohol can.
- 18 hours of no sleep is equivalent to 0.05% Blood Alcohol Content (BAC).
- 24 hours of no sleep is equivalent to 0.10% BAC.





Sleep & Cognitive Performance

- Involuntary microsleeps
- Short-term recall & working memory performances decline
- Increased compensatory effort is required to remain behaviorally effective
- Attention-intensive performance is unstable with increased errors of omission
- Reduced learning of cognitive tasks
- Tasks may begin well, but performance deteriorates as task duration increases
- Performance requiring divergent thinking deteriorates
- Loss of situational awareness diminishes



Sleep & Mental Health: Quality, not just Quantity

- Sleep quality may be the **most important** health behaviour predicting mental health & well-being, more so than sleep quantity, physical activity & dietary factors such as raw fruit & vegetable intake.

• *Wickham et al.*

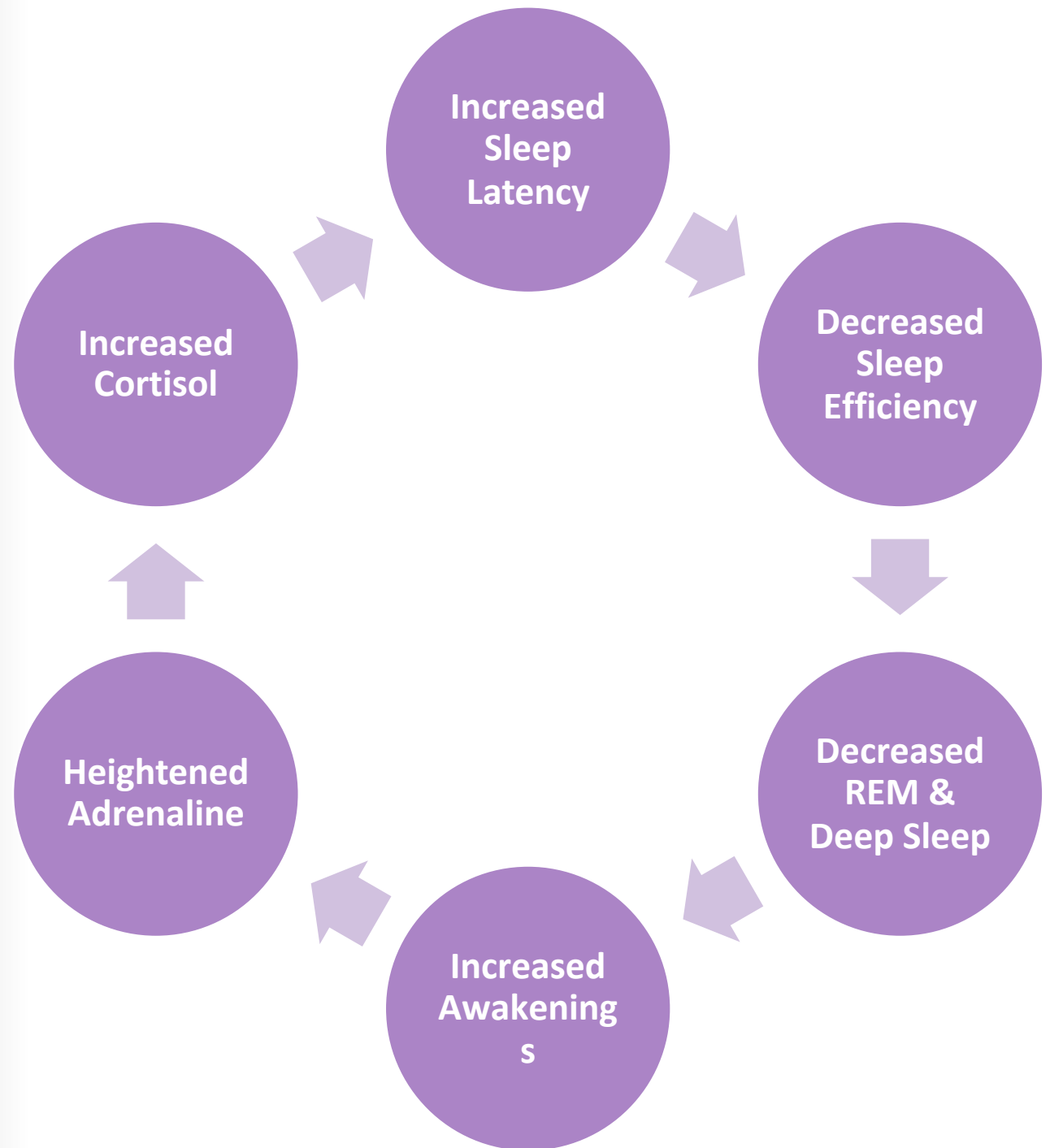
The Stress Response: fight or flight

- Faster Heart rate and brain waves
- Increased vigilance
- Increased stress hormone (cortisol)
- Increased blood pressure
- Increased muscle tension

Physical symptoms: cold and clammy hands, tense neck/shoulders, rapid heartbeat, and chest breathing or breath holding.

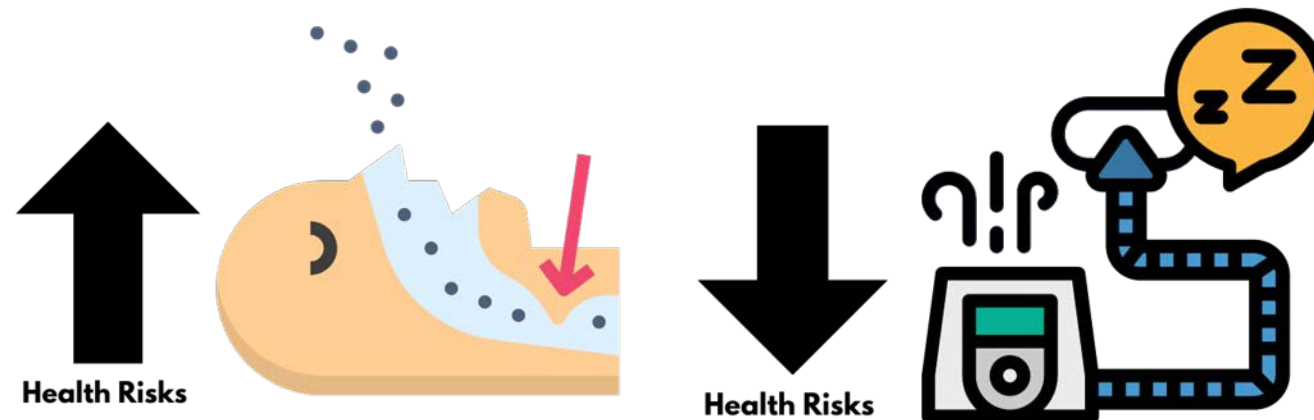
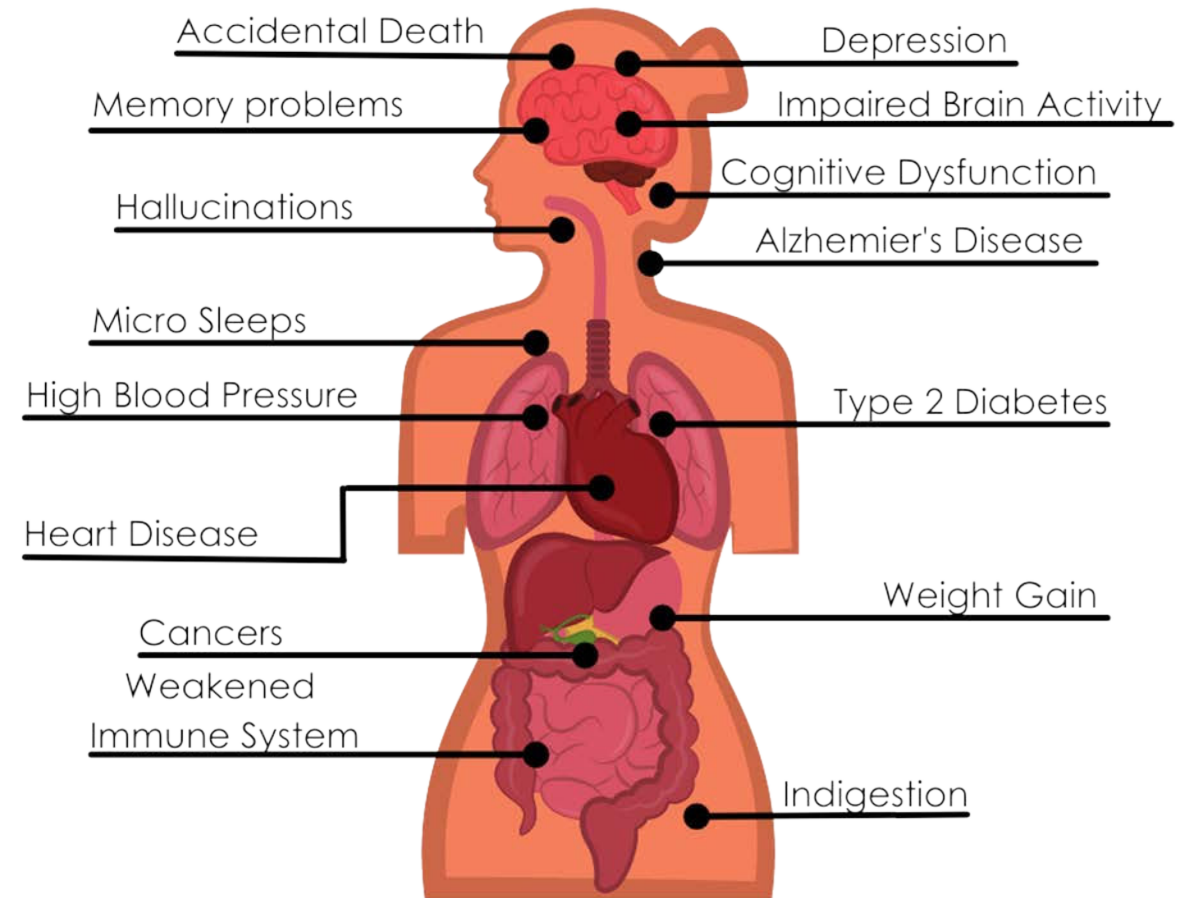



How stress affects the sleep cycle:



Sleep & Health

- 70% of growth hormone is released during deep sleep
- Sleep loss affects fat loss negatively, and increases muscle loss
- Chronic sleep deprivation is linked to high blood pressure, high cholesterol, heart attack, obesity, diabetes, and stroke.
- Obstructive Sleep Apnea increase all health risks associated with sleep loss





Recognizing fatigue in yourself & in others

- Sleepiness and fatigue are not the same
- Fatigue impairs our ability to judge how tired we are

What does fatigue look like?

- Emotional or volatile
- Difficulty concentrating at work
- Forgetfulness
- Sick more often (common colds)
- Difficulty making decisions
- Impulsive
- Increased appetite
- Clumsiness
- Skin problems
- Stomach/digestion problems
- STRESS

Coworker: You look tired today

Me: Wow, rude!

Also me:



WHY ARE WE NOT SLEEPING?

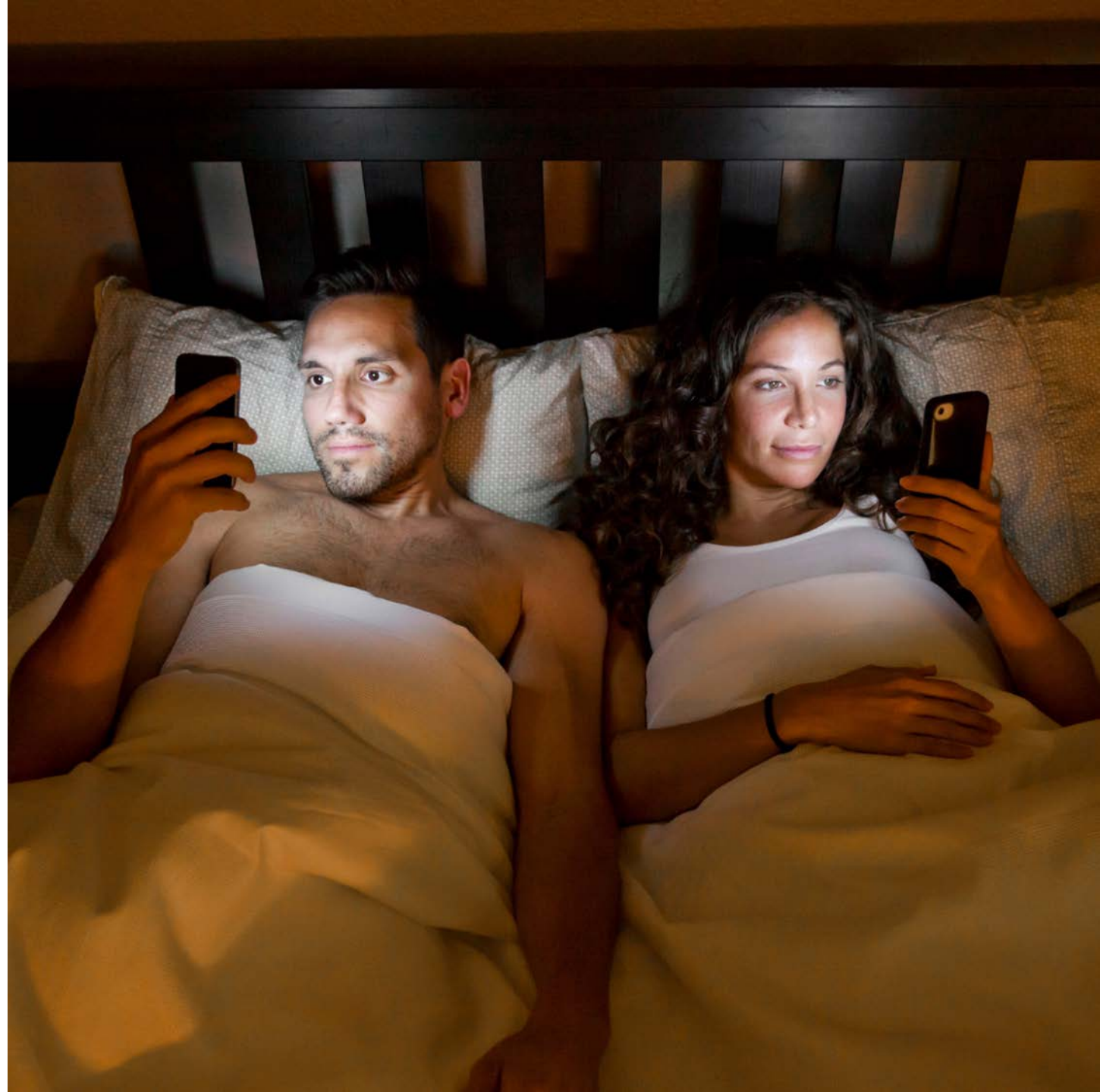


*The verdict is in & a plea
for better rest*

Identifying behaviours
that steal from our
sleep & avoiding sleep
disruptors

Revenge Bedtime Procrastination

- Refusing to sleep because you value the freedom of late-night hours more than sleep
- The result of our waking hours being preoccupied and not enough personal time, especially when working from home
- What it looks like:
 - "Me-time"
 - A few extra episodes of Netflix
 - Scrolling on Instagram or Twitter





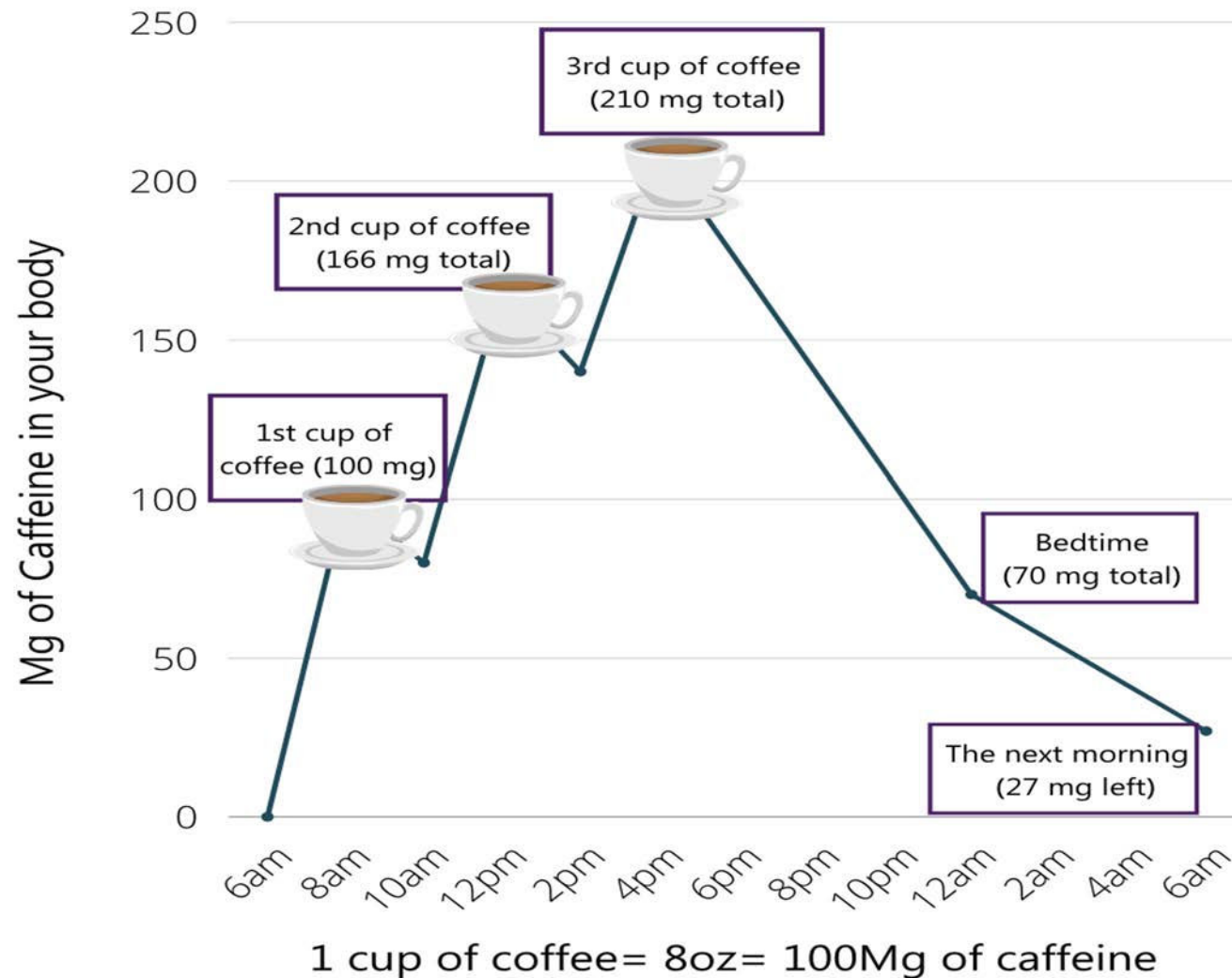
Sleeping Aids, Caffeine & Alcohol



- Sedated is not the same as sleeping
- Caffeinated is not the same as rested



How much caffeine is in my system?



Caffeine has an approximate 6-hour half-life

- The half-life is the time it takes for 1/2 of the original quantity to metabolize in your body

BUILDING YOUR SLEEP TOOLBOX



*Making a case for
bedtime*

Just an extra 15
minutes of sleep per
night is more than 90
hours extra of recovery
time per year

The Relaxation Response

- Slower brain waves and heart rate
- Lower muscle tension
- Lower stress hormone (cortisol)
- Lower blood pressure
- Lower respiratory rate

Physical symptoms: warm and dry hands, relaxed neck and shoulders, slower heartbeat, and abdominal breathing.



Relaxation Techniques

- Box breathing
- Progressive muscle relaxation
- Guided relaxation
- Guided imagery





Cognitive Restructuring *Appeal*


- Thoughts have powerful effects on the body and sleep
- The Placebo Effect
- Negative Sleep Thoughts (NSTs): negative, inaccurate thoughts about sleep
- Examples:
 - "I'm never going to fall asleep tonight"
 - "I can't sleep without a sleeping pill"

Stimulus Control *Bylaws*



Pavlov's Dog

- 20-20 Rule
- Example: Pavlovian response
 - Good sleepers are under the influence of positive stimulus control: the bed has become a strong cue for sleep.
 - Poor sleepers are under the influence of negative stimulus control: through repeated associations, the bed has become a cue for wakefulness.
- Stimulus control is not meant to promote clock watching



Sleep Strategies

For your *Chambers*

Bedroom Environment

- Cool (16-18.6 Celsius)
- Dark
- Quiet
- Comfortable

*Use your bedroom for sleep and intimacy only

Additional Sleep Hygiene Techniques

Keep regular bedtimes and wake times

Wake up at the same time everyday, even weekends, regardless of how well, or poorly you slept



Put tech away as part of a consistent healthy bedtime routine



Blue light from screens will delay your natural production of melatonin

Morning bright light exposure

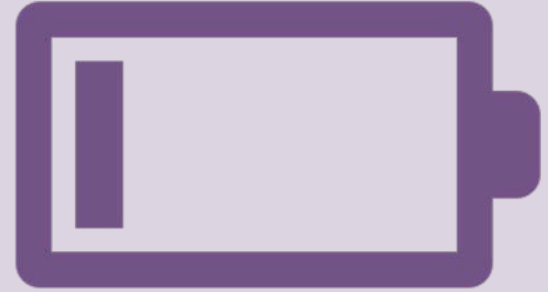
Try to get 30 minutes of direct sunshine first thing in the morning

Bright light therapy lamps are a replacement for morning sunlight



Sleep is *healthcare* & *self-care*.

Prioritize sleep & yourself.



You wouldn't let this happen to your phone. Don't let it happen to you either.

Self-care is a priority, not a luxury.

**THANK
YOU**

Q&A

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