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**PROGRAM MATERIALS**

**Program #3691**

**March 9, 2026**

# **The Neuroscience of Legal Decision-Making Under Stress, Lack of Sleep, and Substance Abuse**

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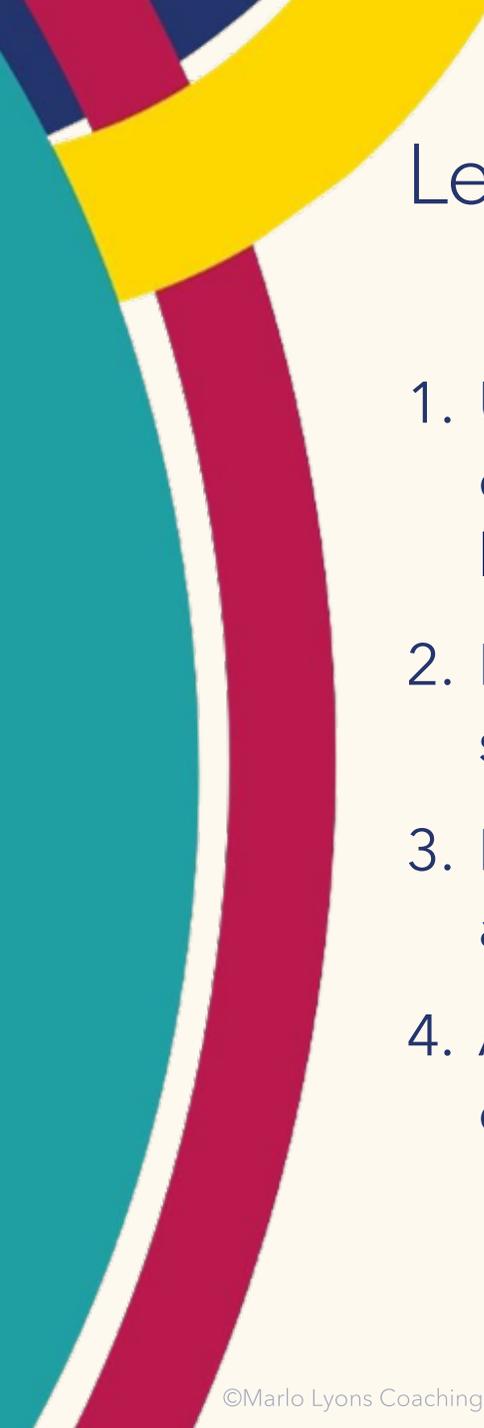
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# Neuroscience of Legal Decision-making Under Stress, Lack of Sleep, and Substance Abuse

**Marlo Lyons**

J.D., Executive, Career, and Team Coach



# Learning objectives

1. Understand the neurological impact of chronic stress, lack of sleep, and substance abuse on decision-making and legal reasoning
2. Recognize the cognitive impairments associated with stress, sleep deprivation, alcohol, and stimulant use
3. Detect early signs of impaired performance in yourself and your colleagues
4. Apply science-backed tools and techniques to enhance cognitive clarity and resilience under pressure

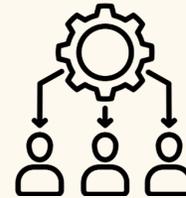
# A little about me



Journalist



Entertainment  
Lawyer



HR Executive

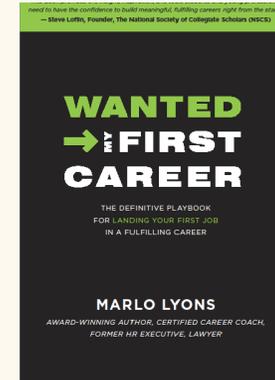
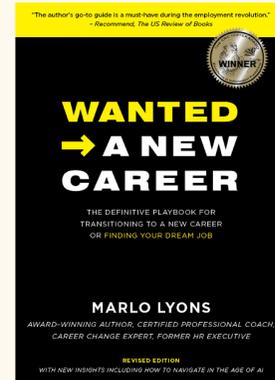
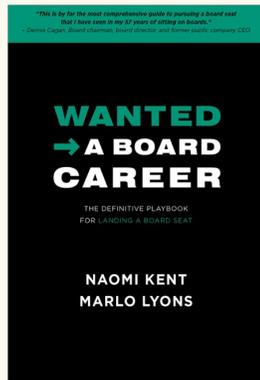


Certified Executive,  
Career, and  
Team Coach  
Workshop Facilitator

# A little more about me



Podcast  
*Work Unscripted*



HBR Contributor

# Prevalence of stress in the legal profession

92%

of lawyers experience stress or burnout

25%

of lawyers report daily stress

76%

of lawyers feel overly stressed weekly

45%

of lawyers experience anxiety related to workloads

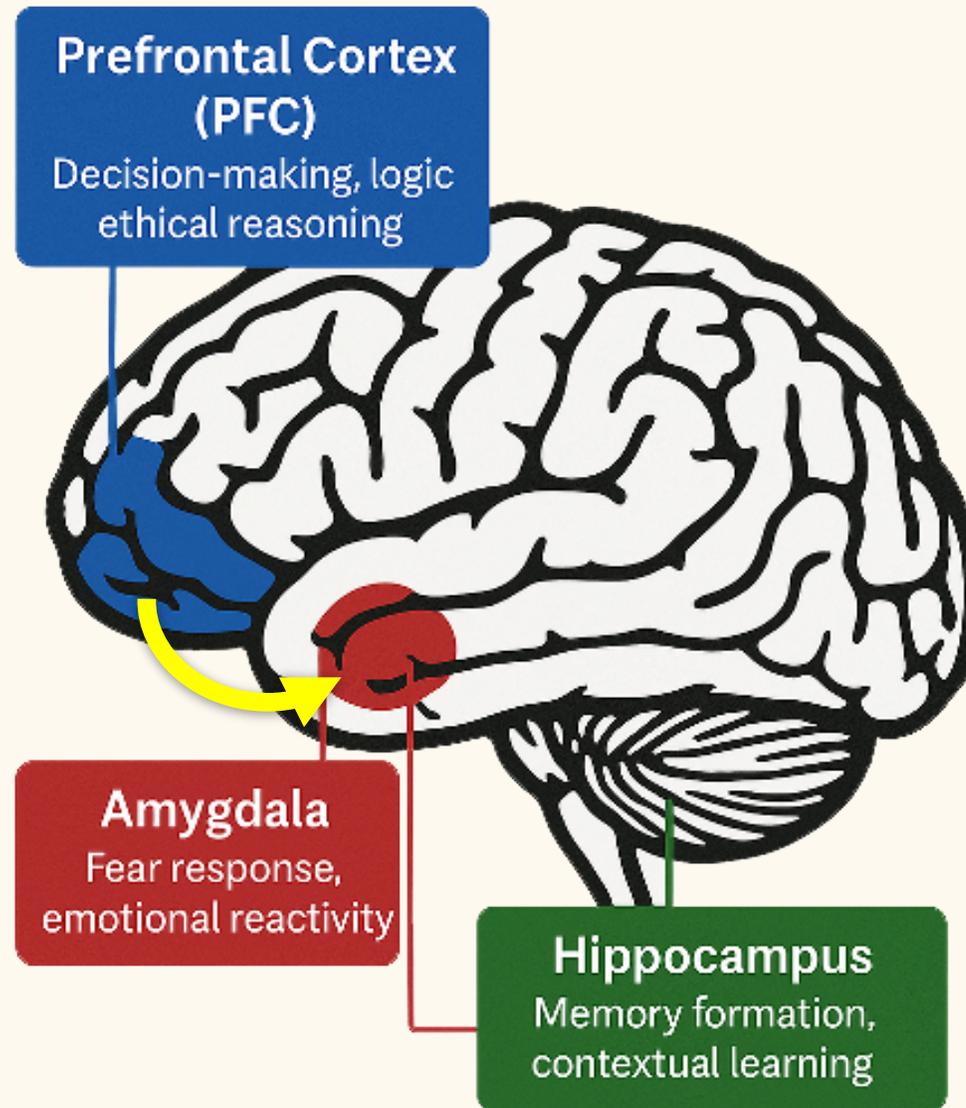
69%

of lawyers attribute errors to stress, burnout or exhaustion

# Neuroscience 101: The Brain

Stressor

- Amygdala activates
- PFC shuts down
- Impaired judgment

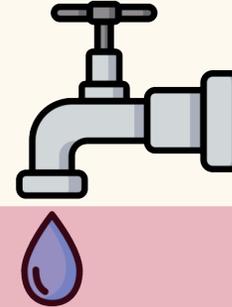


# Types of stress



## Acute Stress

- Sudden deadlines
- Fight or Flight = increased focus
- Helpful in bursts
- Recovery is possible



## Chronic Stress

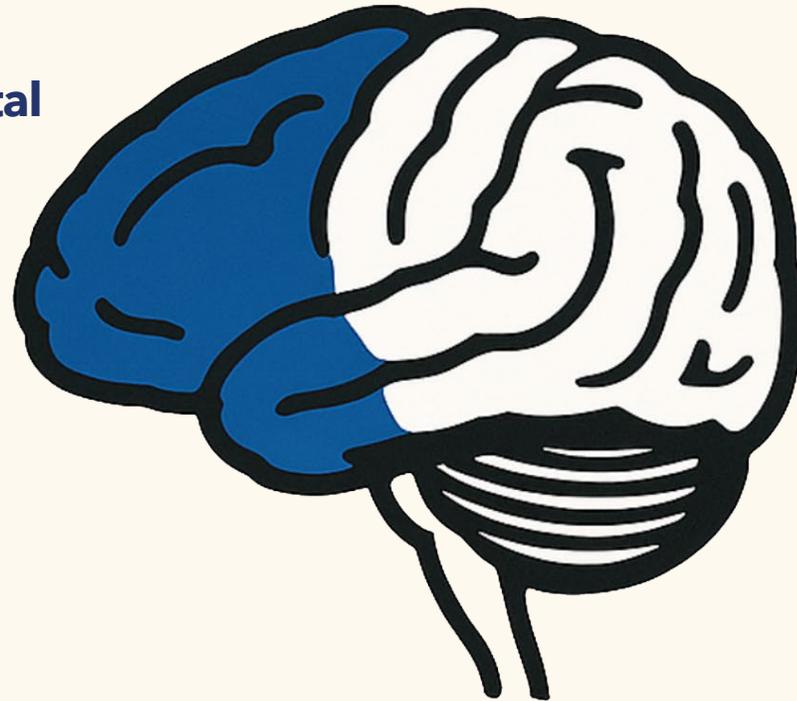
- Daily overload without breaks
- Constant cortisol = brain fog, fatigue
- Harmful when sustained
- No time to reset = impairment builds

**“Chronic stress impairs the brain’s structure, not just its state.”**

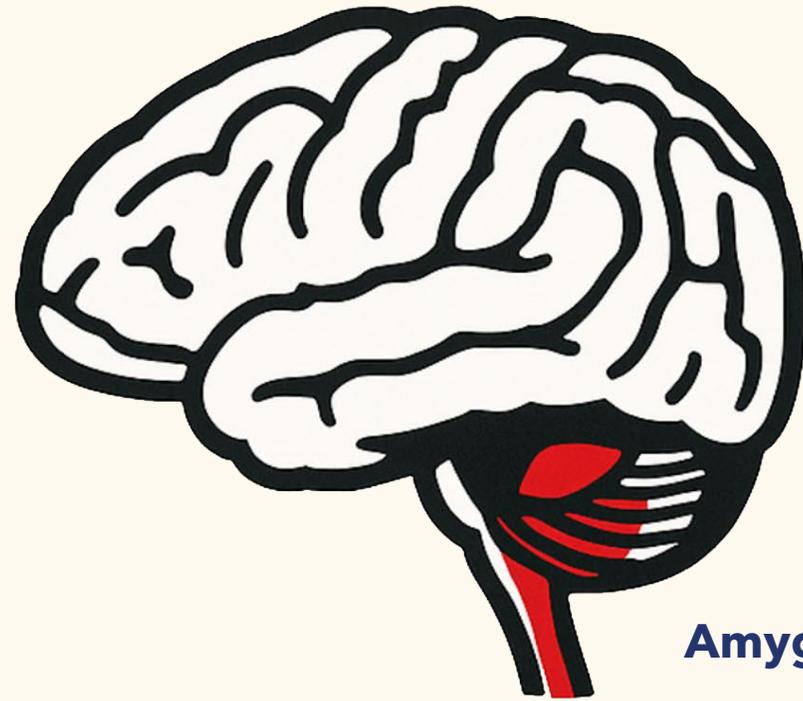
– Bruce McEwen, Author, *“The End of Stress As We Know it.”*

# Stress and the prefrontal cortex

**Prefrontal Cortex (PFC)**



**Chronic Stress**



**Amygdala**

# Symptoms of impaired executive functioning

## What you might notice

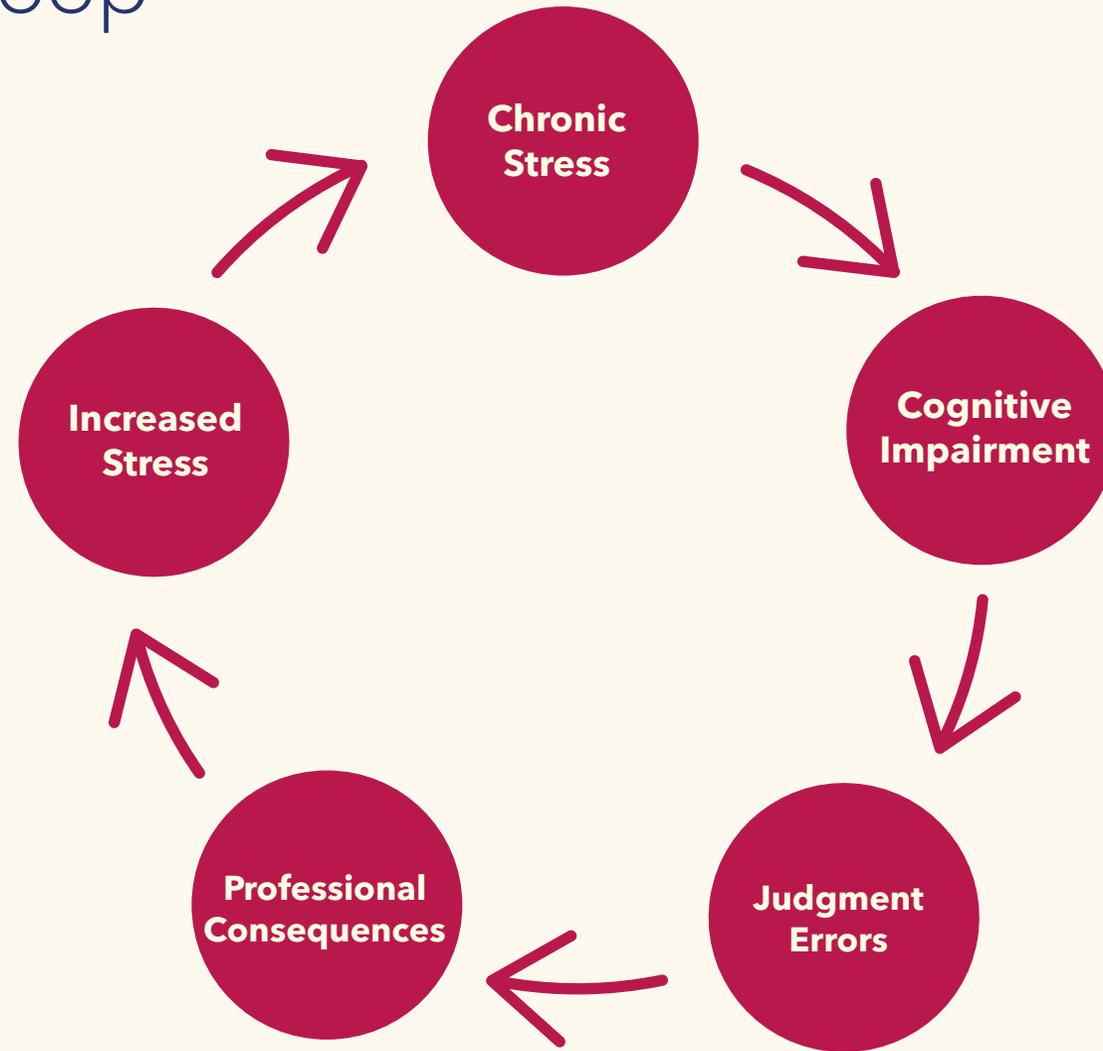
- Impulsivity
- Rigid or black and white thinking
- Poor prioritization
- Repeated mistakes
- Emotional overreaction
- Decision paralysis
- Excessive self-checking and second-guessing
- Withdrawal from collaboration

## What is actually happening

- Lower prefrontal cortex activation
- Amygdala-driven behavior
- Lower working memory and attention
- Lower cognitive flexibility
- Reduced inhibition



# The stress loop



# Ethical and professional risk



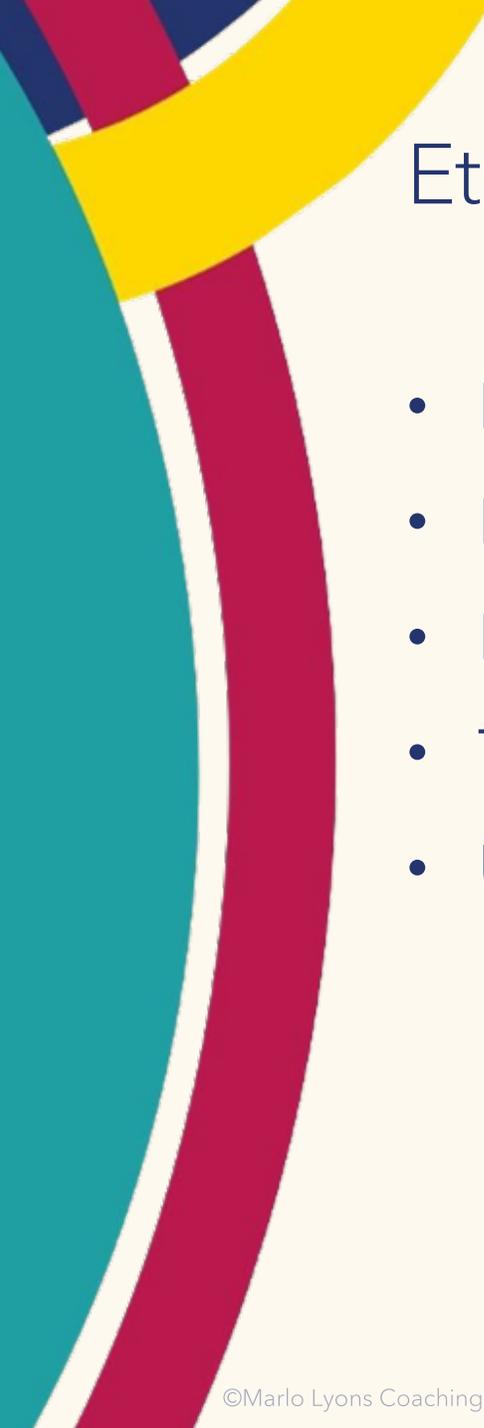
69%

of lawyers who made professional mistakes linked them to stress, burnout, or exhaustion

# Ethical and professional risk



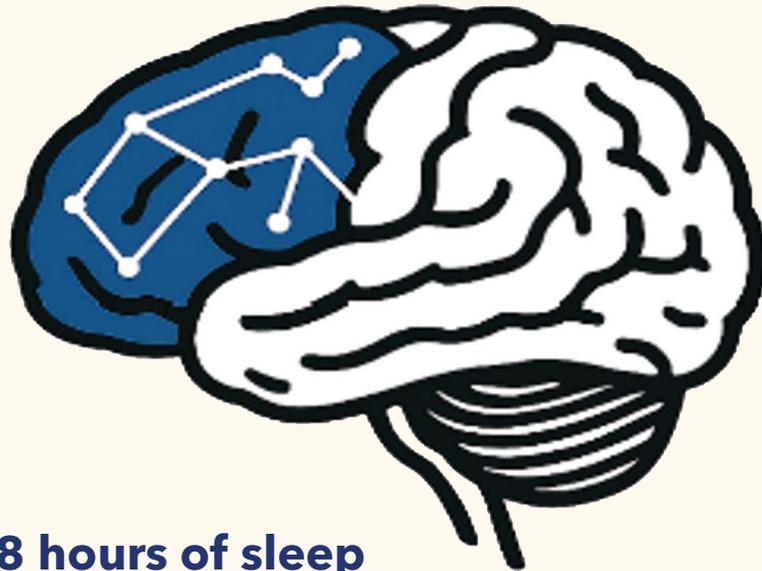
1. Am I unusually reactive or rigid right now?
2. Have I slept under seven hours for multiple nights?
3. Is there caffeine, alcohol, or stimulant rebound in the mix?



# Ethical and professional safeguards

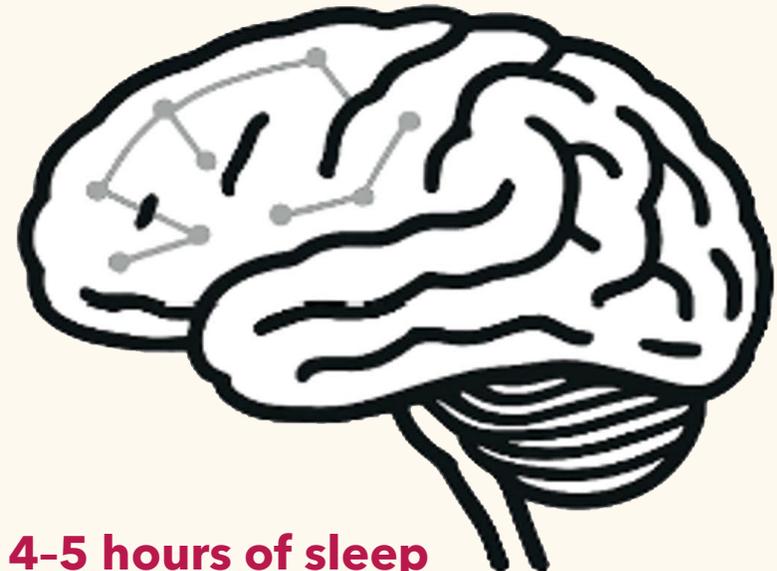
- Pause and reset
- Leverage a second set of eyes
- Do a three-minute decision reset
- Take microbreaks and visual rest
- Use cognitive reappraisal language

# Sleep deprivation: The hidden impairment in legal practice



**7-8 hours of sleep**

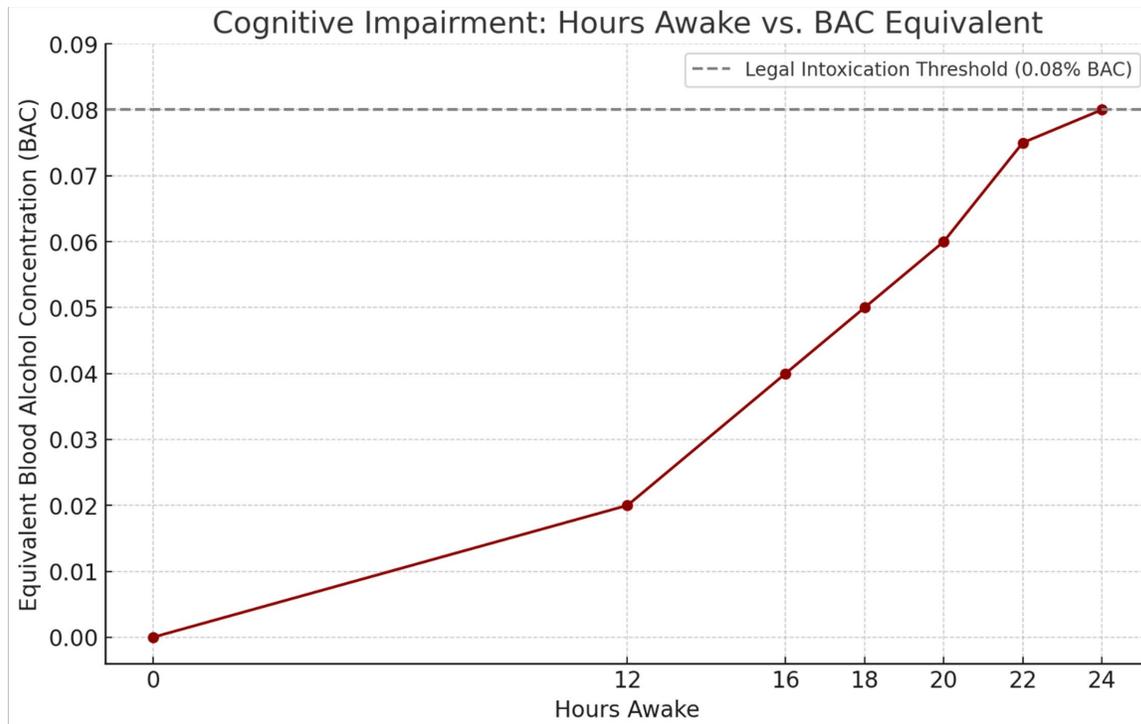
Clear, active, lit-up connections



**4-5 hours of sleep**

Dim, disorganized connections,  
sluggish processing

# Sleep deprivation: The hidden impairment in legal practice



65%

of legal professionals  
get fewer than 6 hours  
of sleep most workdays

– Dawson & Reid (1997), *Nature*

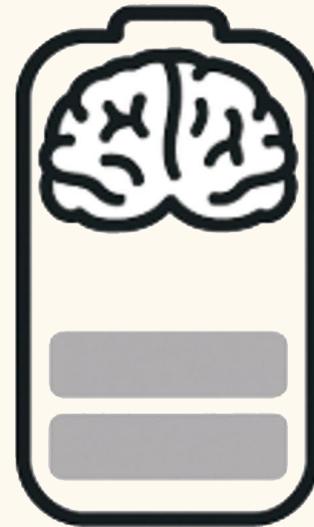
# Sleep disruption on the legal mind



**Working  
Memory**



**Attention  
to Detail**



**Analytical  
Reasoning**



**Analytical  
Reasoning**

**SLEEP → COGNITION → COMPETENCE**

# Warning signs of sleep deprivation

## Warning sign

- You reread the same paragraph multiple times and still don't absorb it
- You blank on simple facts or procedural steps
- You feel emotionally reactive to minor disruptions or feedback
- You make careless mistakes despite high effort
- You avoid complex tasks, preferring easy or repetitive work
- You procrastinate key decisions or defer judgment
- You feel foggy or disoriented in meetings
- You lash out, shut down or withdraw socially
- You rely on caffeine or stimulants to get through the day
- You struggle to recall conversations or client details hours later

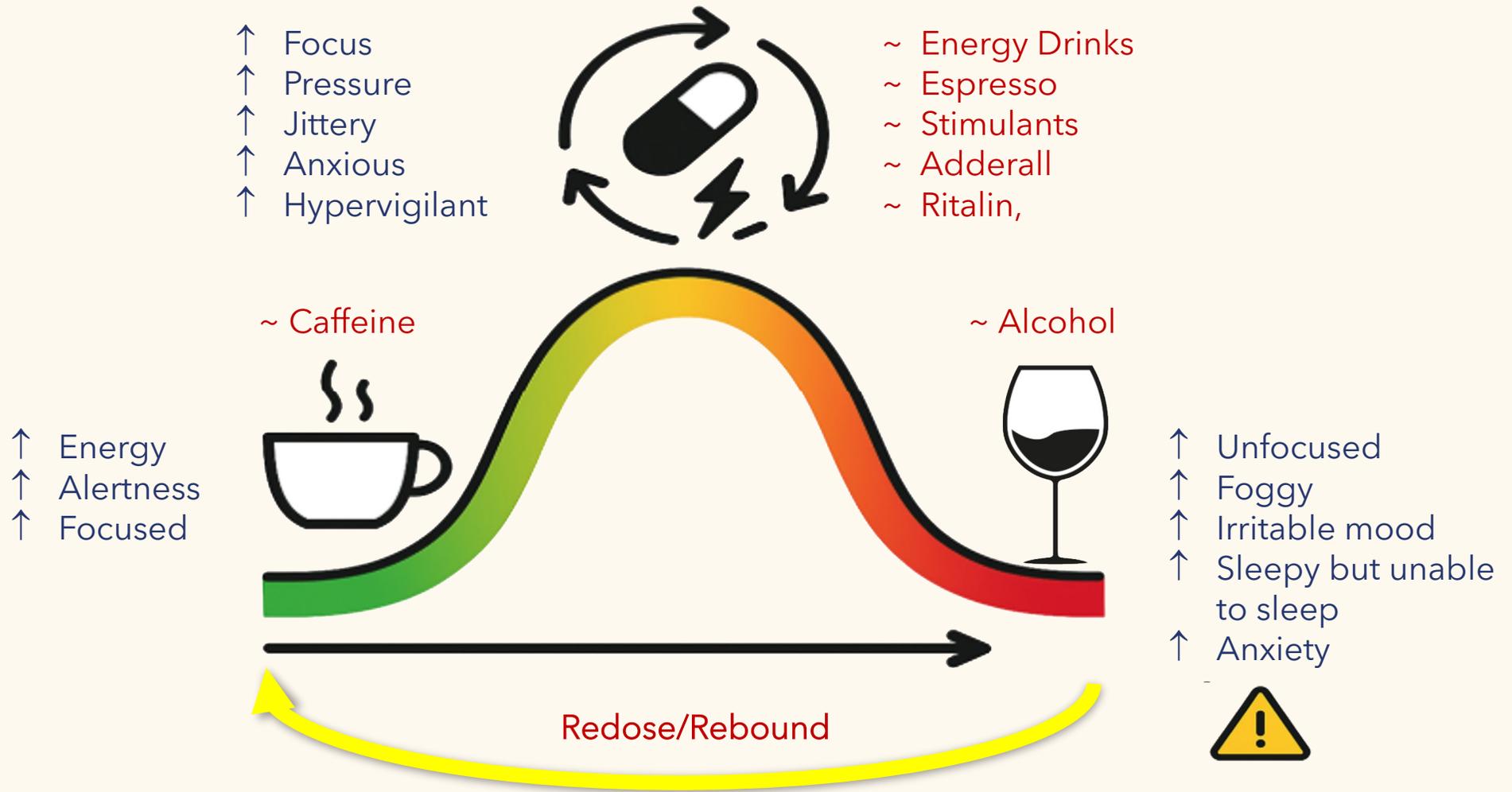
## What it may signal

- Impaired working memory
- Weakened recall and attention
- Reduced emotional regulation
- Decreased attention to detail
- Avoidance due to reduced cognitive stamina
- Compromised executive functioning
- Cognitive fatigue
- Amygdala hijack; social cognition drop
- Compensating for poor sleep with artificial stimulation
- Fragmented memory encoding from poor sleep.

# Legal sleep hygiene tips

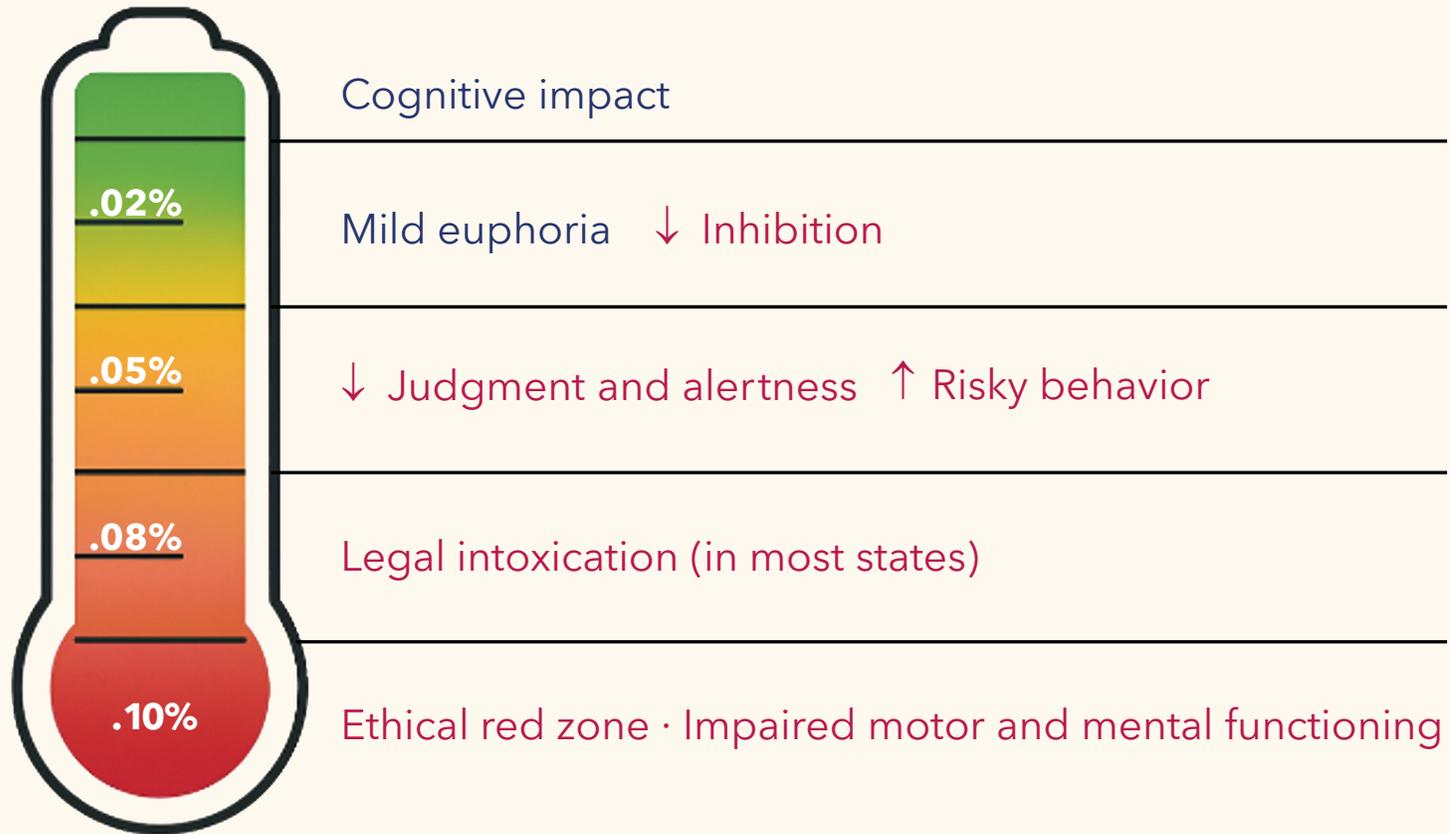
- Establish a wind down routine **30-60 minutes before bed**
- Aim for **7-9 hours of sleep**, even during busy work times (get a sleep tracker)
- **Don't use your bedroom for work-related activities**
- **Avoid caffeine after 2PM** to minimize interference with sleep cycles
- Keep a **consistent sleep and wake schedule**, even on weekends
- Use **blackout curtains or eye masks** to reduce ambient light
- Consider **short naps (10-20 min)** instead of pushing through exhaustion
- If you can't fall asleep in 20 minutes, leave the room and **do something calming**
- **Track your cognitive clarity** after full nights vs. short nights
- **Consider sleep aids** (melatonin, magnesium etc.) with a doctor's approval
- Consider **grounding sheets**

# Stimulants and the legal mind



# Alcohol and judgment

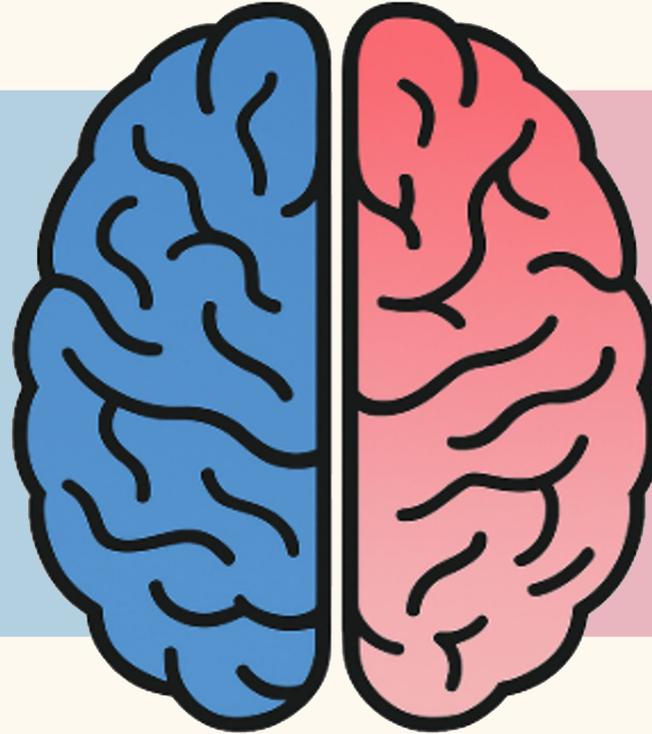
## Blood Alcohol Content



# The brain stressed on substances

## Healthy State

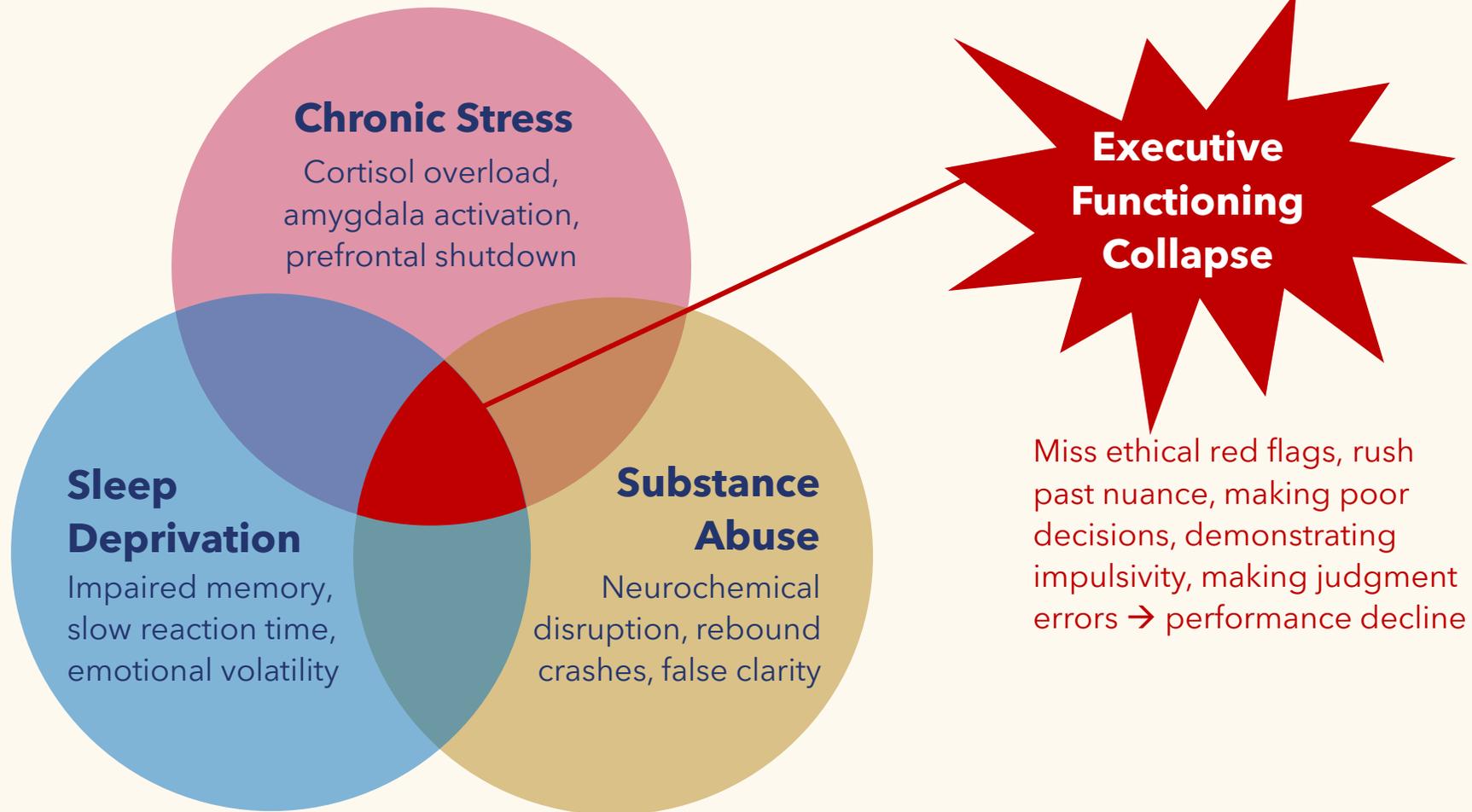
- Balanced dopamine and serotonin
- Calm prefrontal cortex
- Regulated attention and memory
- Goal-directed behavior



## Unhealthy State

- Overstimulated dopamine
- Hyperactive amygdala
- Suppressed prefrontal cortex
- Inhibited memory and learning disruption

# When stress, sleep loss, and substances collide



# How the Brain Compensates (Hint: Poorly)



## **Normal Executive Brain**

Analyzes facts

Weighs options and outcomes

Balances emotion and logic

Considers long-term impact

Solicits feedback



## **Overloaded Brain**

Jumps to conclusions

Chooses fastest option available

Defaults to emotion or habit

Fixates on short term relief

Withdraws or avoids collaboration

# The brain stressed on substances

## Stress Brain

- Hyperactive amygdala
- Shrinking prefrontal cortex
- Impaired memory
- Emotionally reactive
- Rigid or impulsive decision-making



## Resilient Brain

- Regulated amygdala threat response
- Strong executive control
- Adaptive learning and recall
- Emotionally regulated
- Flexible, thoughtful decision-making

## Neuroplasticity

The ability of the brain to form and reorganize synaptic connections, especially in response to learning or experience.

# Breathwork and Heart Rate Variability (HRV)



**Overwhelmed brain**

## **Box Breathing**

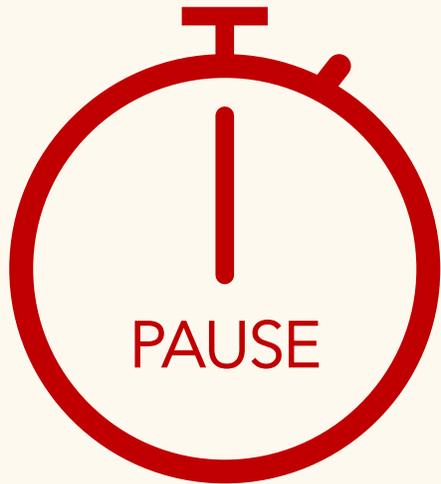
- **Inhale for 4 seconds**
- Hold for 4 seconds
- **Exhale for 4 seconds**
- Hold for 4 seconds



**Calm Brain**

Repeat for 60 seconds

# The 3-minutes decision reset



**1 min**

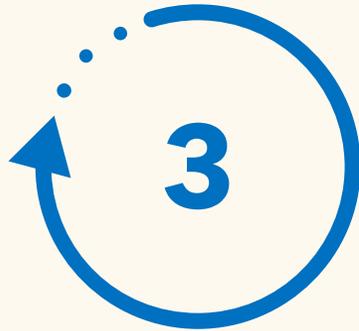


**2 mins**



**3 mins**

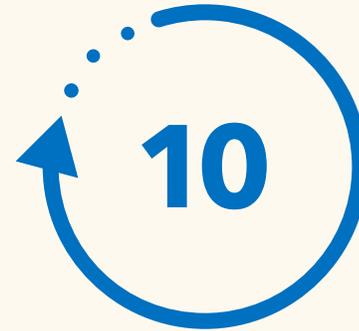
# Tactical recovery: micro breaks



**Box or Triangle  
Breathing**



**Visual  
Rest**



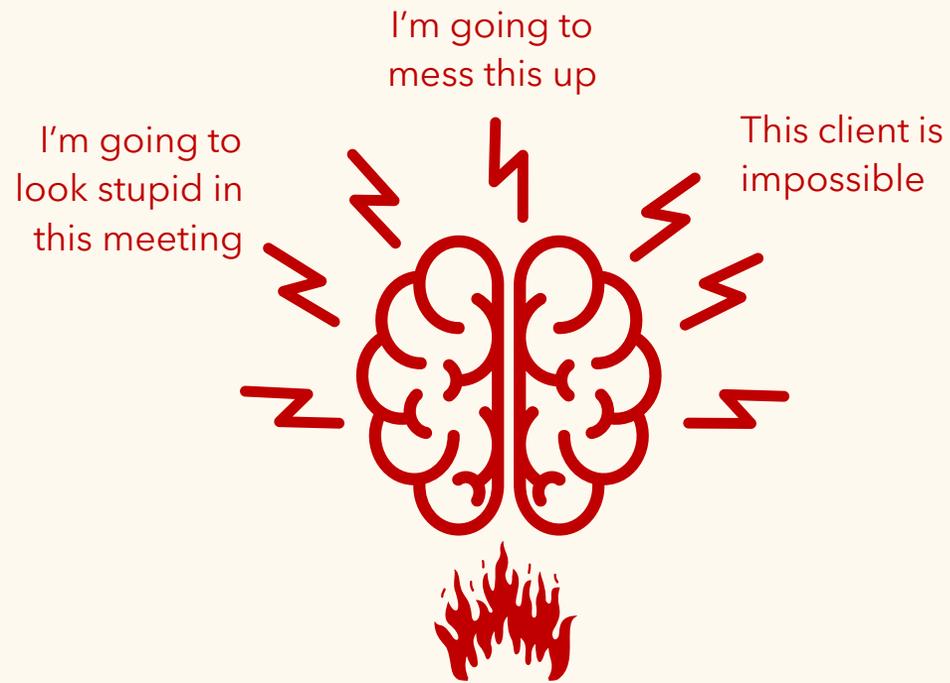
**Stretching /  
Walking**



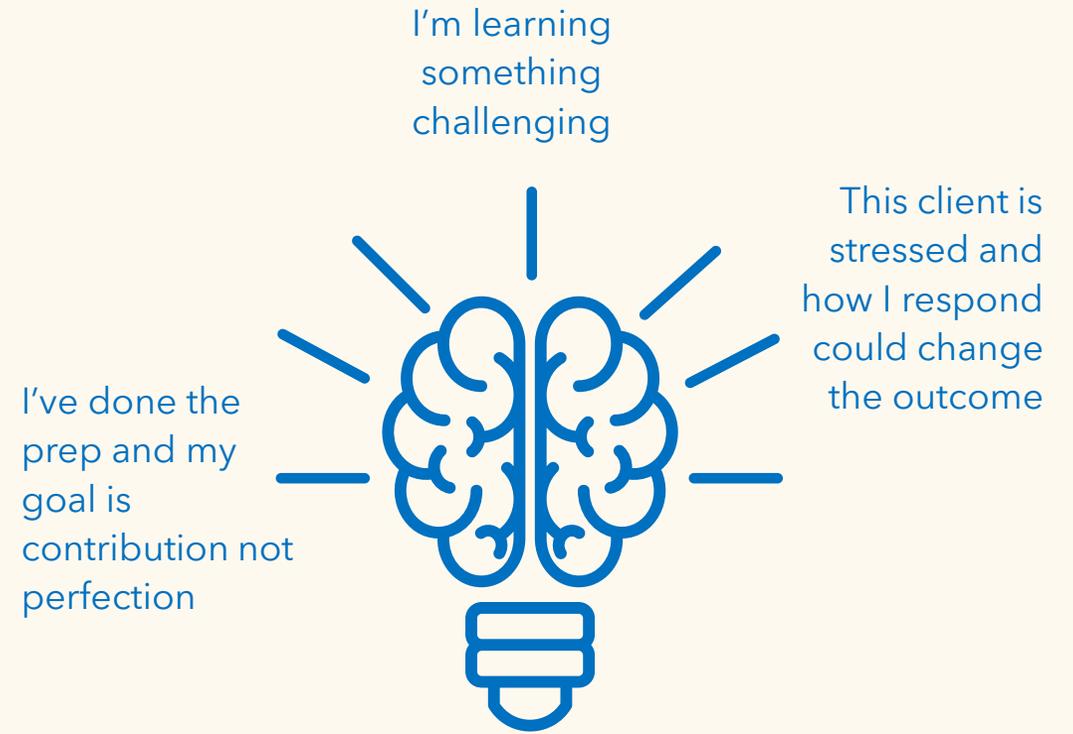
**Nonproductive  
Time**

**Brain reset  
Executive function refresh  
Nervous system signal shift**

# Cognitive reappraisal



**Automatic Thought**



**Reappraised Version**

# Confidence journaling

## What went right today?

*"I spoke up in a strategy meeting  
I normally just listen to."*



## What does that say about me?

*"I can trust my preparation and  
voice in a room of senior leaders."*

## Where can I apply that again?

*"Next time I hesitate to speak, I'll  
remember this moment."*

# Feedforward: Future focused feedback



You missed the structure again in that agreement.



You seem to still be struggling with the structure of those agreements. Next time try this checklist. I think you'll feel stronger about the output.

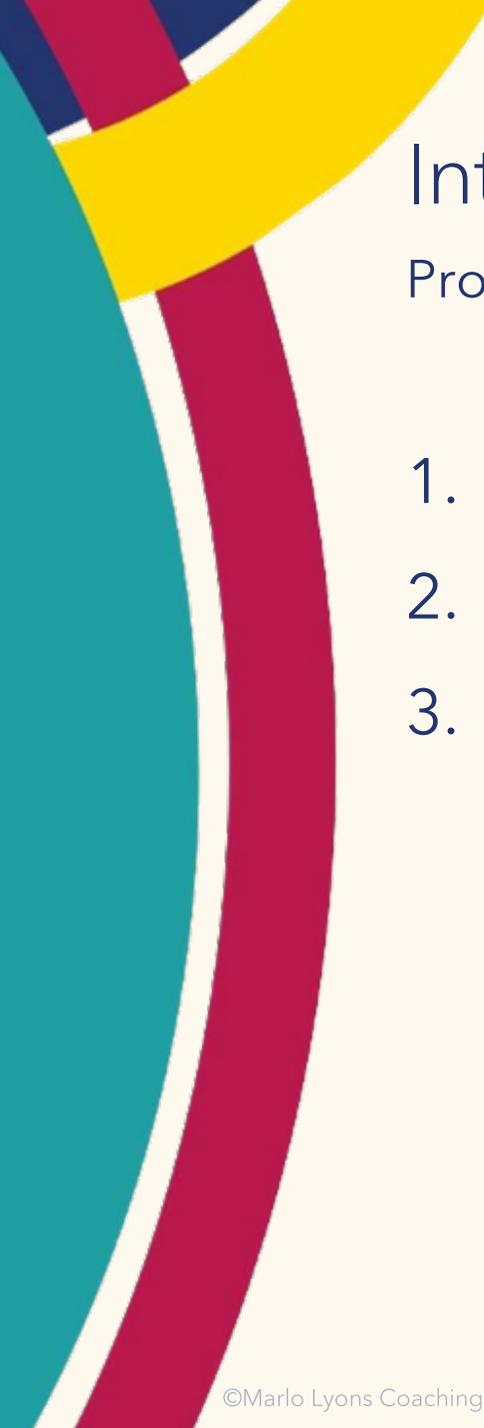
# Integration: connect it to your practice

Create a stress and decision-making self-audit:

- I've sent an email while angry or exhausted that I later regretted.
- I often push through fatigue without taking recovery breaks.
- I regularly sleep less than 7 hours a night.
- I regularly use caffeine or other substances to maintain performance.
- I use alcohol or other substances for stress relief.
- I've missed details or made decisions I'd normally avoid when under pressure.
- I ruminate on mistakes rather than learning and moving forward.
- I have relied on shortcuts instead of strategy recently.

**2-3 yeses**

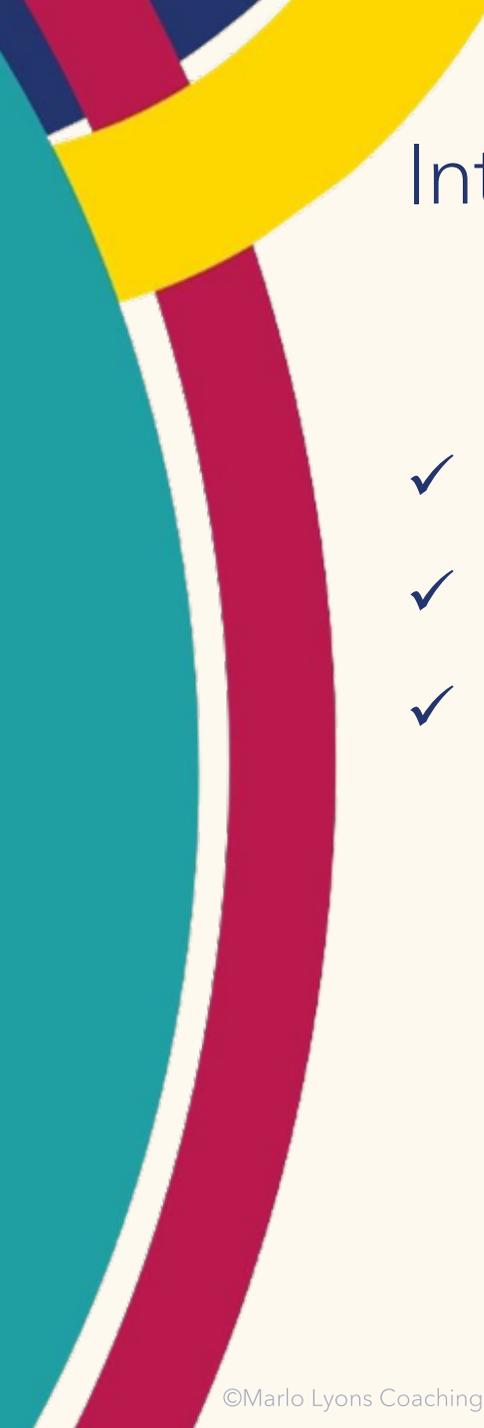
apply tools and techniques to regain cognitive control



# Integration: connect it to your practice

Process the information about how your brain works

1. Stress shrinks strategy
2. Sleep restores control
3. Substances short-circuit clarity



## Integration: connect it to your practice

- ✓ Test one tool this week to lower stress
- ✓ Shift one conversation in your head
- ✓ Reframe one belief

# Final thoughts

**Clarity**



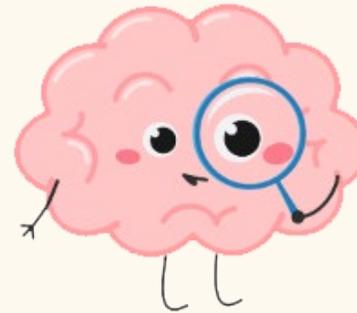
**Judgment**



**Knowledge**



**Ethics**



# Neuroscience of Decision-Making Under Stress



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[Work Unscripted Podcast](#)

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