Howatt HR CONSULTING

Cognitive and Decision Fatigue: Science and Solutions

45mins with 15mins Q&A
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Learning objectives

- Exploring fatigue
- Review the neurobiology of cognitive/decision fatigue to better understand its impact
- Review evidence-based tips on ways to manage cognitive/decision fatigue

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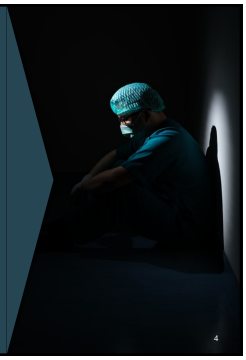
Exploring Fatigue



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What is Fatigue?

Fatigue can be defined as mental or physical exhaustion that prevents a person from being able to function safely or effectively.

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Why Physical Fatigue Matters

Research has shown that the number of hours awake can have similar effects to blood-alcohol levels:

- 17 hours awake is equivalent to a blood-alcohol content of 0.05
- 21 hours awake is equivalent to a blood-alcohol content of 0.08 (legal limit in Canada)
- 24-25 hours awake is equivalent to a blood-alcohol content of 0.10

A person who is fatigued due to lack of sleep can increase their risk for impairment that can result in accidents at work, or on the way to and from work

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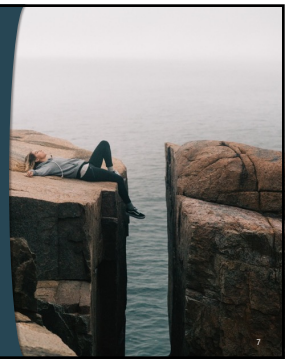
Change Fatigue occurs when change exceeds a person's ability to adapt to the change. It may appear as a loss of focus, energy and willingness, or general sense of apathy or passive resignation.



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Recognizing Change Fatigue

- Increased complaints and conflict, cynicism prevails
- Apathy and disengagement
- Employees are visible tired or show signs of burnout
- Employees seem stressed about changes
- Resistance to change, people express doubts about the change

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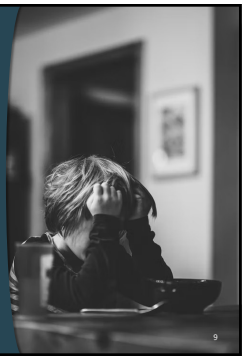
Decision Fatigue is a mental overload resulting from constantly having to make stressful choices.



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Recognizing Decision Fatigue

- Procrastination
- Being Impulsive
- Avoiding making a choice
- Irritability
- Anxiety
- Depression
- Diminished executive functioning
- Physical symptoms such as tension headaches or digestive issues

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Why Mental Fatigue matters

Mental fatigue is associated with:

- physical fatigue
- Insomnia
- Weight gain or loss
- Impatience
- Headaches
- Upset stomach
- Difficulty concentrating
- Body aches
- Increased risk for illness, such as flu

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Mental fatigue is linked to:

Cognitive and executive functioning:

- reduced decision-making ability or cognitive processing,
- reduced ability to do complex planning,
- reduced communication skills,
- reduced productivity or performance,
- reduced alertness, attention and vigilance,
- reduced ability to handle stress on the job,
- reduced reaction time - both in speed or thought, as well as the ability to react,
- loss of memory or the ability to recall details,
- failure to respond to changes in surroundings or information provided,
- increased tendency for risk-taking,
- increased forgetfulness,
- increased errors in judgement,

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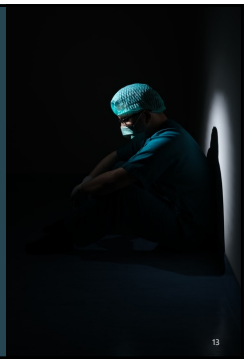
Neurobiology of mental fatigue



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Survival Brain vs. Executive Brain

- Paleomammalian brain
- Built for survival
- Functions automatically and unconsciously

- Frontal lobe
- Control's behavior
- Like a battery

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In the Pandemic

Our survival brains are on fire. (They don't forget threat.)

Our frontal lobe battery is empty.

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Executive Functioning

- Concentration
- Memory
- Attention
- Problem solving
- Decision making

Pre-frontal cortex

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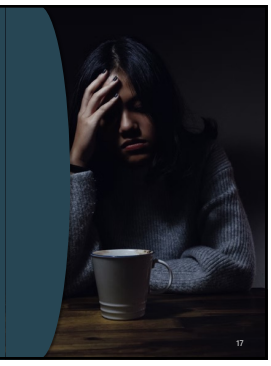
Impact of stress on executive functioning

- Brain imaging study shows stress can weaken the connectivity of the prefrontal network
- This leads to impaired executive functioning
- When stress is reduced these effects disappeared.
- (tax time)



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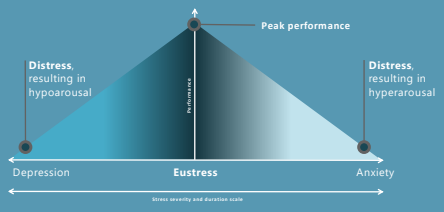
Not All Stress is Bad



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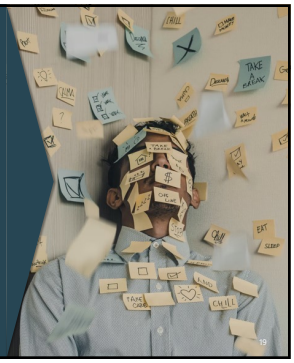
Tips for Mitigating Fatigue



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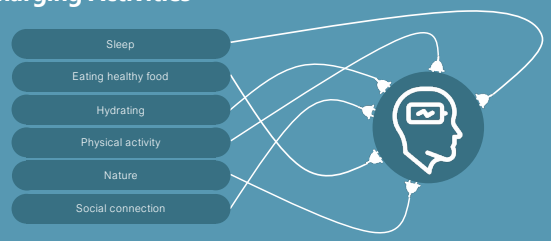
Charging Activities

- Sleep
- Eating healthy food
- Hydrating
- Physical activity
- Nature
- Social connection



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Recognize early signs of fatigue

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Your stress thermometer 1-10

RED (9-10)= Emergency

ORANGE (6- 8)= Distress — Intervene

YELLOW (3-5)= Prevent

GREEN (1-2)= Maintain — Charge batteries

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What does GREEN look like for you? (Body, Mind, Behaviour)

GREEN (1-2)= Maintain

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What does YELLOW look like for you? (Body, Mind, Behaviour)

YELLOW (3-5)= Prevent

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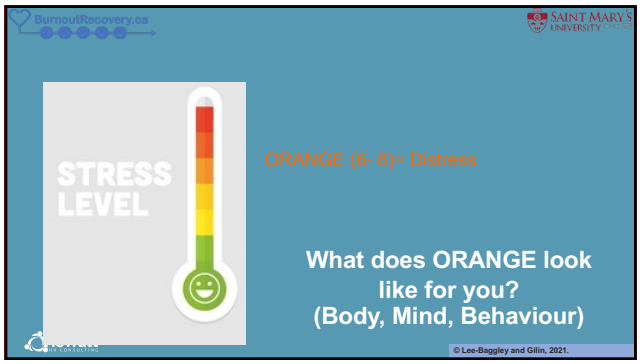

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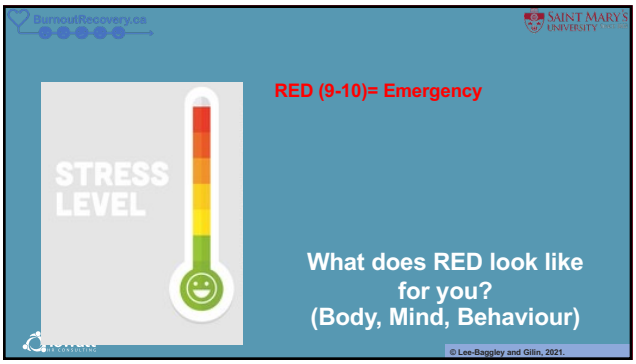

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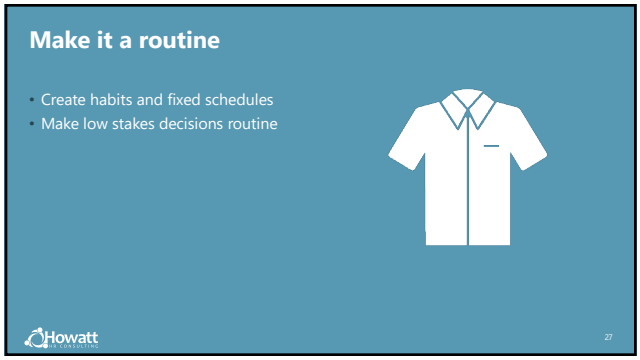

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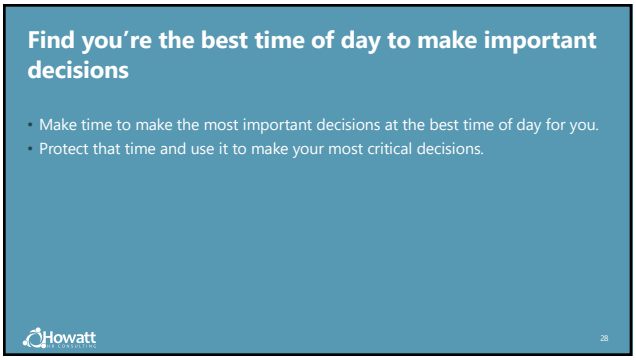

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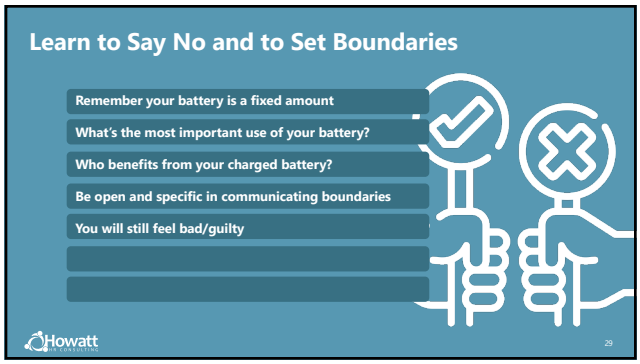

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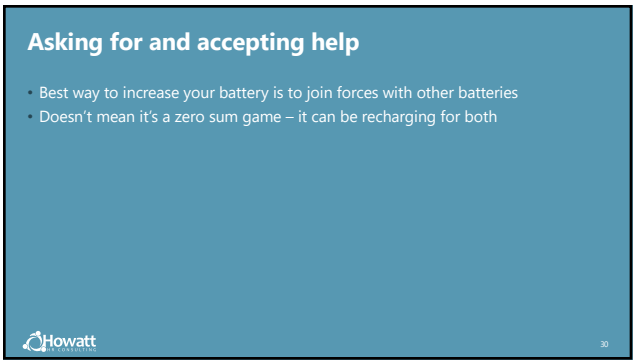

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Create Your Fatigue Prevention Plan

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Science of behaviour change

21 days myth

How we learn

Charge your frontal lobe

Lee-Baggley, 2019.

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Behavioural Change: Tips

Pick a behavioural goal

Pick a 90% goal

Pick a "do instead" goal

Track your progress (SMART)

Plan for setbacks

Lee-Baggley, 2019

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Step 1: Monitor your Battery Level

- Capacity check; monitoring energy levels through the day and pacing appropriately.
- There is a fixed amount of battery.
- Can't just will yourself more energy: How are you spending it?
- Don't forget the impact of the pandemic on battery levels.

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Step 2: Notice What Drains You

- What is using up your battery?
- Sometimes the best way to improve productivity is to take a break

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Step 3: Be Intentional With What Charges You

- Pay attention to daily habits to offset drains.
- In times of stress focus especially on charging (tax time, stick to a routine)

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Step 3: Be Intentional With What Charges You

- Add battery capacity by adding other batteries not increasing your own. (what's realistic for you to take on)
- What can only you do and what can anyone do?
- Delegate: especially tasks that you a large amount of your battery but might not take a lot of battery for someone else.

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Be kind

1. No one is at their best
2. There are no frontal lobes anywhere
3. "My frontal lobe is done"

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Questions?

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