



# STRESS REDUCTION

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# LAND ACKNOWLEDGMENT

We recognize that as Torontonians, we are living on, and indeed broadcasting from, land that is the traditional lands of the Anishinabek Nation, the Haudenosaunee Confederacy, the Huron-Wendat peoples, and the Seneca Nation - Toronto being the traditional home of the Mississaugas of the Credit First Nation and covered by the Williams Treaty of 1923.

We acknowledge that as active members of settler colonial Canadian society, we have a role to play in reckoning with the truth of the historical and ongoing violence of colonialism, and in making authentic reconciliation with Indigenous peoples of this land.



# ABOUT THIS WEBINAR

- This is educational webinar will run from 5:00-6:30 PM
- The webinar will be recorded
- I will not be answering questions live during the webinar today; however,
  - if you have questions about the content, send them to the Q&A
  - after the webinar, I will compile a list of frequently asked questions, answer them, and post them to the website
- The recording of this webinar, relevant handouts, and the FAQ document will be posted to our website within 1-2 weeks
- There will be an evaluation sent out after this webinar. Please take a few moments to complete it
- This is an introductory, high level webinar on a very big and complex topic!



# AGENDA

- What is stress?
- When things are smooth sailing - “the zone of optimal arousal”
- The stress response
- An ancient operating system in a modern and complex world --> chronic stress
- Stress reduction vs. stressor reduction
- Looking at and assessing the stressors in life
- Stress reduction techniques (8)
- Proactive, day-to-day considerations for stress reduction





# What is Stress?

A **stressor** is something that is perceived as threatening, challenging, and/or as overwhelming one's resources and capacity to cope. A stressor leads to stress.

**Stress** is the felt experience of what happens in the mind and body in response to the perception of a threat (stressor).



# An Ancient System

- The way the body and mind respond to a threat/stressor is shaped by the evolution of our species and has evolved as a survival mechanism.
- When faced with a threat, the stress response is activated in the brain and a cascade of physiological changes happen rapidly to allow humans to respond quickly to life-threatening situations.
- These physiological changes are largely driven by the Autonomic Nervous System (ANS)
  - works automatically and involuntarily to regulate vital bodily functions, including the functioning of many systems, organs and glands in the body
  - Involves the:
    - Sympathetic Nervous System (SNS) “fight or flight” or “the accelerator”
    - Parasympathetic Nervous System (PNS) “rest and digest” or “the break”
      - These systems work in opposing ways to help the body achieve and restore balance

# “The Optimal Zone of Arousal”

When things are ‘smooth sailing’, meaning the brain and nervous system have not detected any threats:

- there is a sense of being “safe enough”
- the ANS maintains what Dan Siegel (1999) calls the “**optimal zone of arousal,**” or being in our “**Window of Tolerance**”
- a person is able to “think, feel and deal”
- different parts of the brain are able to communicate & work cohesively together (integration)
- the “social engagement system” is on, allowing one to feel safe and connected to others.

# The “Optimal Zone of Arousal”



## Calm

Parasympathetic dominant:

- low arousal
- rest and digest
- feeling safe, able to think clearly and socially engage

Physical sensations of:

- relaxed muscles
- slow heart rate
- slow respiration (in belly/diaphragm)
- cooler body temperature

Feelings of:

- calm, pleasure, contentment, peace, sad, upset



## Active/Alert

*sometimes called “good stress” or “eustress”*

Sympathetic dominant:

- moderate arousal
- alert and ready to act
- feeling safe enough, able to think clearly and socially engage

Physical sensations of:

- energized, buzzy, restless/motile
- activated muscles
- slightly increased heart rate and respiration
- warm body temperature

Feelings of:

- excitement, anticipation, nervousness, determination, anxiety, fear, playful



# When a “Threat” is Detected

- The mind is always scanning the environment for signs of potential danger. When a potential threat is perceived, a rapid assessment occurs of:
  - (1) the threat level, and
  - (2) how capable one is to cope.
- This information is sent to a part of the brain called the *amygdala*, which “sounds the alarm,” alerting the *hypothalamus* of the danger.
- The hypothalamus is like a command centre, communicating through the ANS with the rest of the body. It initiates and sustains the activation of the SNS (accelerator), through the release of stress hormones, causing a cascade of physiological changes that prepare the body to react to the threat.

*This happens extremely rapidly, often outside of conscious awareness.*

# Stress Response

- Our response is less about the threat/situation itself and more about our perception and interpretation of it
- Transactional Model of Stress and Coping - Richard Lazarus and Susan Folkman
  - Threat or Challenge
    - Often a mix of both, but the proportion matters (as seen on next slide)
- The same situation can elicit very different responses in different people
- Our appraisal of the situation is informed by many complex factors, including our '*internal knowings*,' past experiences, health status, presence of other stressors, sense of social connectedness, inadequate access to basic needs, and core beliefs about oneself, others, and the world

# Responses to Stress

The system may activate and fluctuate between any (or all) of these states of arousal:



## Face

Sympathetic dominant

- interpretation that it's a manageable challenge threat & one is able to cope
- high arousal, mobilizing,
- similar sensations to "Active/Alert" but more intense, as there is now awareness of a threat/problem
- not feeling 'out of control' or 'too intense'



## Fight or Flight

Sympathetic dominant

- mobilizing to be able to fight or flee from the threat
  - hyper-arousal
- Sensations of:
- tense muscles
  - rapid breathing (in the upper chest)
  - rapid/forceful heart rate
  - slowed/halted digestion
  - racing and cyclical thoughts,
- Feelings of:
- rage, fear
  - excitement/anticipation



## Freeze

Sympathetic dominant

- too much hyper-arousal leads to overload and immobilization, but still activated and ready to flee
- all signs/sensations & emotions of fight-or-flight, but also "locked up," feeling froze, and immobile
- may feel emotions or may feel numb/'nothing'



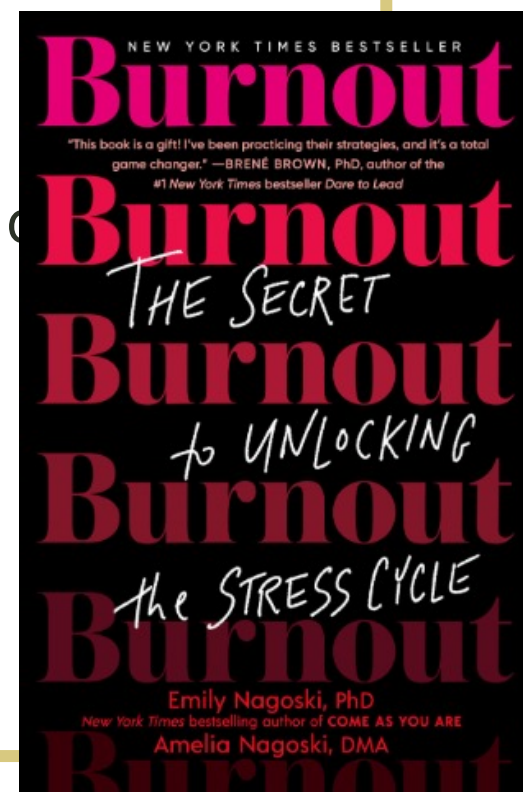
## Collapse

Parasympathetic dominant

- excessive and sustained overload and persistence of threat leads to full system shut-down, collapse survival response
- everything slows drastically (heart rate, respiration, digestion, blood flow, and muscles go flaccid)
- likely may feel too disconnected to feel any emotions

# Stress Response

- A component of the stress response is a redirection of energy and reduced activity in some parts of the brain associated with complex thought processes, rationality, logic, forethought, perspective-taking and problem-solving
  - A threat takes a person from “think, feel and deal” to “feel - just deal! think later”
  - A threat takes a person out of “social engagement system” and the survival instinct is to socially/relationally withdraw, shut-down, or fight
- The stress response is designed and dependent upon having a beginning, a middle, and an end. Emily and Amelia Nagoski (2019) describe this as “completing the stress cycle.”
- This stress response is highly adaptive, helpful, and survival-promoting when faced with an imminent threat to our safety or a physical challenge that requires this level of arousal to respond.



# An Ancient Operating System in a Modern and Complex World

- While many people may seldom face imminent, life-threatening situations, all humans face a number of complex, nuanced stressors on a daily basis.
- This stress response system is not the most skillful at differentiating between what is imminent & life-threatening, and every other kind of stress... thus, the stress response:
  - can get activated when it is not actually needed,
  - can get activated repetitively,
  - can get “stuck on” in a sense,
  - and it can go unchecked:
    - not “completing the stress cycle” and returning to the “zone of optimal arousal”
    - the body is not rebalancing.
- This leads to **chronic stress**, which is associated with various health and mental health problems... AND, thankfully, there are things we can do about it!



# Stress Reduction vs. Stressor Reduction

Stress reduction techniques...

1. Help us feel more well, calm, settled, present and be more socially available and connected
2. Are protective against the health effects of chronic stress activation and a kind of hyper-adrenaline overdrive
3. They help us get into a physiological and psychological state whereby we are actually better able to cope with and address the more complex, nuanced stressors in our lives (think, feel, and deal, integrated brain state)



# Working with the Stressors: What is within my control and what is outside of my control?


## **Some stressors are truly out of our control.**

Part of the human condition is that we will experience situations, life events, and circumstances that are outside of our control, things we are not personally responsible for and cannot personally change. It is a painful reality we must accept. While we do not cause all our problems, we are the one's who have to deal with them. For these, we can look towards:

- **Radical acceptance**
- **Self-compassion and self-soothing:** “how can I support myself and seek support from others during this challenging time?”

## **Some stressors are within our control, and/or there are aspects that are within our control...**

As there are always some things outside of our control, there are always things within our control (often, more than we may initially think).



# Looking at and Assessing the Stressors

- Make time to look at the stressors in your life: the demands, the to-do's, the pressures and expectations, and more generally looking at how you live your day-to-day life and spend your time...  
I invite you to take some time to ask yourself:
  - How am I currently managing and spending my time AND how does this align with my goals and values?
    - Is that working for me? Is that actually possible/realistic?
  - What is within my control? What is outside of my control?
  - What boundaries are needed? Where might I need to say “no”?
    - What can give? What might I have to set down, put on pause, or lower my expectations around?
  - Where might I need to recruit some help, and from where/whom?
  - What systems do I have in place to help with organization, time management and prioritization?  
Are those systems working for me?
  - What do I do for fun, pleasure, play, enjoyment, and self-care?



# Common Culprits...

- When looking at stressors in our lives and asking those reflective questions, it is important to be aware of our interpretations and the stories we tell ourselves that may actually be contributing to our being overburdened or over stressed... some common culprits to be aware of may be:
  - Feeling like we need to be perfect
  - Comparing ourselves to others and feeling like we're 'not keeping up' or are somehow under-doing-it
  - Fearing that we're not good enough if we don't "do it all"
  - "I should be able to do it all"
  - "It's easier to just do it myself" or "I shouldn't ask for/need help"
  - Trying to manage other people's emotions...
    - "People will be upset with me if I \_\_\_\_ (say No, cancel, don't offer to help)"
    - "I don't want to stress them out, they've got enough of their plate"

# Self-Compassion

- Self-compassion can help to respond to some of the thoughts/beliefs we've just spoken about
- It is also a highly effective way of helping soothe ourselves when we are feeling painful emotions and stress. It can reduce arousal and increase our felt safe of safety, thus helping shut off stress response
  - vs. an inner self-critic which can keep the stress response activated
- Self-compassion is treating oneself as one would treat a dear friend or someone they deeply care for



# Stress Reduction Techniques - in a stressful moment & many moments throughout the day

1

## Notice, Pause, “Name It to Tame It,” & Take a Step Back

Become aware of the signs of stress in your body and mind. This will help you notice them when it's happening and say to yourself “pause” or “stop.”

Try to find words or images to describes and name what you're feeling (sensations and emotions).

Dr. Dan Siegel refers to this practice as “Name It To Tame It” and research shows this alone can help bring the prefrontal cortex (logical “thinking” brain) back online and reduce reduce stress.

Can you change environment?

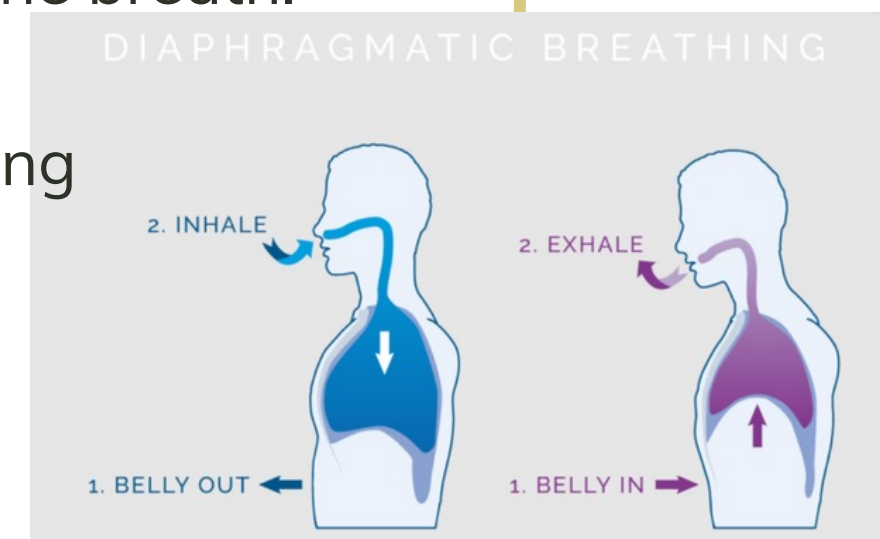
2

## Breathe

The breath is the only part of the ANS that we can actually control. Thus, it's a direct way to access the stress response and reduce arousal.

If feeling high arousal/energy, focus on lengthening and slowing down the exhale. If feeling low arousal, try to increase the rate of the breath.

- Paced breathing
- Diaphragmatic breathing
- Pair with imagery or counting



# Stress Reduction Techniques - in a stressful moment & many moments throughout the day

3

## Tension Release & Gentle Movement

With stress, the muscle may become very tense, restless, or 'locked up.' Try to scan the body for tension and then actively release the muscles and/or bring gentle movement and stretching:

- soften the belly/core
- roll the shoulders back and down
- unclench the jaw
- extend the palms
- massage our the forehead
- soften the eyes/gaze
- unclench the fists

Practice noticing where you feel tension and stress in the body.

4

## Vigorous Movement

In a high arousal state, our body is preparing for action. Sometimes, we need to help our body move through and expel the energy and stress hormones.

- shaking the body/limbs
- jumping jacks
- dancing
- running
- resistance movements

After engaging in vigorous movement, then try to settle the body with breathing or muscle relaxation and gentle movement.

# Stress Reduction Techniques - in a stressful moment & many moments throughout the day



5

## Visualization or Guided Imagery

This is the practice of evoking mental images that simulate a sensory experience, particularly one that is relaxing or calming. This can be done guided (listening to guided audio visualization) or with one's own imagination.

This is effective because where the mind goes, the body follows. If we imagine a place that is safe, relaxing, or associated with positive memories, the body can actually respond to that.

6

## Self-Compassion and Self-Soothing

Ask: What is the best way I could possibly comfort myself in this moment?

What do I need/long for?

If a dear friend were in the same experience, what would I say to them?

How would I show up for them?

Ask the self-critic to soften back. It can be fuel to the fire in tough moments.

- soothing with five senses
- self-massage
- hand on heart/self-hug
- a warm bath/shower
- making a cup of tea


# Stress Reduction Techniques - in a stressful moment & many moments throughout the day



7

## Safe Social Connection

Co-regulating (emotionally regulating with others) is a human need. We are wired for connection and our nervous system is affected by the presence and nervous systems' of others. Try to identify people/pets/places that help you feel safe and regulated.

- call a friend
  - look at photo of loved one
  - cuddle with person/pet
  - be in presence with
  - go to place of worship
  - go anywhere you feel sense of community
  - visit a safe or beautiful place
- 

8

## Progressive Muscle Relaxation

This technique involves moving through the muscles groups of the body and intentionally tensing the muscle, holding it for a count of 3 or 5, and then releasing and relaxing the muscle. This is paired with the breath (inhale/hold while tensing, exhale while releasing). This can be a very effective way of releasing tension and turning down the stress response. There are many free guided ones online.

# The Story I'm Telling Myself...

The initial appraisal of the stressor (i.e., how threatening it is and how capable one is to handle it) is often very rapid, outside of our conscious awareness, and is usually automatic and habitual. There may be automatic interpretations made, like catastrophizing, all-or-nothing thinking, or under-estimating our coping ability, which influence the degree of the stress response.

The good news is that human are able to:

- (1) bring awareness to their automatic thoughts and interpretations
- (2) think critically about those thoughts and, if appropriate, challenge them or come up with a more balanced alternative

*It is much easier to do this when in the optimal zone of arousal.*

When aware that stress is present, gently ask “What is the story I’m telling myself about this situation?”  
Check that story for any possible ‘unhelpful thinking styles’ such as mind-reading, fortune-telling, catastrophizing, black-and-white thinking, or jumping to conclusions.

# Accumulate Positive Experiences





# Proactive, day-to-day considerations for stress reduction



## Accumulating Positive Experiences

Things we do for enjoyment, pleasure, play, fun, or otherwise simply because it makes us feel good are necessary to have balance in our lives and nervous systems. These are often the first things to go when we get stressed.

It is not a reward.  
It is a priority.



## Exercise

Regular aerobic exercise has many benefits for stress. Aerobic exercise reduces stress hormones and increases production of endorphins (mood elevators)

- walking or jogging
- dancing
- sports
- strength training
- swimming
- cycling



## Sleep

Sleep and stress can be get us in a tricky loop, as stress can negatively impact sleep, and poor sleep can increase stress.

Many of the skills discussed today, especially before bed, can help improve sleep by helping the body get in the optimal state of arousal that sleep is possible. If sleep is a concern, talk to your MD/NP.



## Nutrition

The relationship between stress and nutrition is a complex one. Stress affects eating behaviours and digestion, which may in turn affect stress levels.

Inadequate access to food is a massive stressor. Where possible, eating balanced meals and eating when hungry and at regular meal times can help reduce stress. Using stress reduction techniques may positively influence stress-based eating behaviours.

# A few key messages...

- Teasing apart the stressor from the stress is a helpful starting place
- Some stressors are outside of our control, and for those, we lean to
  - radical acceptance
  - self-compassion
  - self-soothing and self-care
  - stress reduction techniques
- Some stressors may be within our control, and while not easy to make changes to reduce stressors, it may be necessary
  - we may need to regularly look at the cost-benefit of continuing this way vs. making a change
- Stress reduction techniques are about rebalancing the nervous system and physiological state of our body, which in turn improves the way we feel and how we exist in the world
- Do not under-estimate small moments of accessing and getting into the optimal zone of arousal
- Embracing the radical idea that pleasure, play and enjoyment are not rewards - they are necessities
- Be gentle, patient and kind with your human self as you navigate life and life's stressors - you are not alone.



*Thank you so much!*

Webinar recording, presentation slides, handouts, and the FAQ document will be posted to the website within 1-2 weeks.

Please take time to complete the satisfaction questionnaire!

If in need of mental health support, please speak to your primary care provider about the mental health services.

# References

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