Stress & Resilience: Nutrition & Lifestyle Tools

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When you feel stressed where do you feel itin your body?

How does your behaviour / emotions change?

What makes the stress better?



Stress is inevitable We can't always control the external world but can control how we respond to things



What do we mean by Stress?

A physiological and psychological response to demands, on the body - threat to survival

There are many different stressors – environmental, physical (sleep deprivation, infections etc), psychological (mental or emotional challenges)

Our thoughts are the most common propagator of chronic stress



Different Forms of Stress

Stress can be beneficial and problematic depending on the type, context, etc.

Acute stress response: every cell and hormone is undergoing a stress response to allow us to increase capacity, energy and focus

Moderately stressful events take days or months – here it's important to notice whether you are coping acutely with something or whether you can take time to restore

Chronic stressful situations go on for years and maybe can't be changed, such as caregiving

Toxic, chronically, unmitigated stress will accelerate aging – but – a life with no stress will also induce rapid aging and reduced cognitive health (because of lack of stimulation)









Stress Response

Involves the brain, nervous system, and the adrenal glands (hypothalamic-pituitary-adrenal) axis.

We switch on our Fight, Flight or Freeze survival mode (sympathetic vs parasympathetic)

When we are in Survival mode - energy is diverted and parasympathetic shuts down



headaches -

Stress can trigger and intensify tension headach

heartburn

Stress increases the production of stomach acid, which could lead to earthurn or make it worse.

rapid breathing

When you're stressed, the muscles that help you breathe tense up, which can leave you short of breath.

risk of heart attack

Over time, an increased heart rate and high blood pressure damage your arteries, which could lead to a heart attack.

pounding heart

Stress hormones make your heart pump faster so that blood can quickly reach your vital organs and limbs

fertility problems

Stress interferes with the reproductive system in both men and women, and may make it harder to conceive

erectile dysfunction

Your brain plays an important part in the process of getting an erection. Stress can interfere with this process

missed periods

Eluctuating hormones can throw your menstrual cycle off, or in severe cases stop it altogether.

increased depression Chronic stress can wear you de otionally and lead to depre

insomnia asleep and stay asleep, which

weakened immune system Long-term stress weakens your immune system's defenses, leaving you more vulnerable to infections

high blood sugar

Stress causes your liver to release extra sugar (glucose) into your bloodstream, which over time puts you at risk for type 2 diabetes

high blood pressure Stress hormones tighten

blood vessels, which can raise your blood pressure

stomachache Stress affects your body's digestive system, which can lead to stomachaches, nausea and other tummy troubles.

low sex drive Stress - and the fatigue that often comes with it - can take a toll on your libido.

tense muscles Stress makes muscles tens up, and chronic stress can lea

Signs & Symptoms of Stress

- Less empathic
- Less tolerant







Emotional & Cognitive

Physical Symptoms

Behavioural Symptoms

Stress makes you:

 Less willing to take another person's perspective Cless winning to take another perspective







What Determines Our Response to Stress?

Genetics

- Childhood Experiences
- Trauma
- Diet and Nutritional Status
- Gut Health
- Sleep, Rest
- Support structure
- Mindset
- Ability to dissipate stress
- Hormone levels!!!

- 1. The novelty of the event
- 2. The unpredictable nature of the event
- 3. A perceived threat to our body or ego
- 4. A sense of loss of control





Using Diet to Mitigate the Effects





Stress & Eating Behaviours

Overeaters (more common): stress response drives cravings and insulin resistance state, people can't control eating and think about food a lot

Under eaters: highly sympathetic, digestive system shuts down, more alertness and arousal

This can make nourishing our body more complicated.

Cortisol promotes fat storage, particularly in the abdominal area which can be harder to shift making a focus on diet more vital



Nutritional Demands of Stress

Protein (esp Tyrosine)

Antioxidants (combating **Oxidative Stress**)

Mitochondrial support

Digestive support



Omega 3 fatty acids

Nutrients for adrenal function

Adaptogens



Omega 3 Fats and Stress

- Chronic stress is pro inflammatory
- Omega 3 fatty acids reduce inflammation and improve receptor health
- Studies have shown omega 3 fatty acids can improve resilience to stress
- Aim for around 600mg EPA / 400mg DHA minimum. At least 1g fish oil daily



Nourishing the Gut

A growing body of research is indicating how our gut microbiome improves stress resilience and mood

- Via vagus nerve
- Hypothalamic-pituitary-adrenal axis (HPA axis)
- Production of neurotransmitters and SCFA

Use of Psychobiotics - Bifidobacterium longum, Lactobacillus acidophilus Rosell-52, Lactobacillus casei and L. plantarum

Butyrate – modulates HPA, Reduces anxiety and depression-like behaviours



Adrenal Supportive Nutrients

Vitamin D – lowers high cortisol, immune modulator

Magnesium – depleted with stress response

B Vitamins (esp B5 and B6) improves resilience

Vitamin C – reduces high cortisol after intense stress (e.g exercise)

Zinc – important for mood, anxiety

Phosphatidylcholine & Phosphatidylserine – HPA / Cognitive health

Egg yolks, oily fish, organ meats Supplement at least 1000IUS

Leafy greens, cacao, wholegrains, nuts, seeds

Mushrooms, fish, avocados, eggs, chicken, red meat, liver, sunflower seeds, sweet potatoes, lentils.

Kiwi fruit, peppers, berries, leafy greens, citrus

Seafood, meat, nuts and seeds, poultry

Organ meats, oily fish, soy products



Electrolytes and Hydration

- Electrolytes are involved in the transmission of electrical signals between nerve cells.
- Elevated cortisol levels can promote electrolyte imbalances which can worsen stress responses & symptoms (e.g blood pressure, cardiovascular health).
- Critical to maintain proper electrolyte balance and hydration



Caffeine & Alcohol

Both may exacerbate the stress response

- Caffeine can spike stress hormones, which can increase \bullet anxiety and interfere with sleep. Good options are to switch to Rooibos or Green tea (L theanine)
- Alcohol disrupts blood sugar & neurotransmitter balance. \bullet Inhibits various enzymes which are needed to break down stress hormones. Depletes B vitamins and vitamin C and reduces sleep quality



Lifestyle Tools

- Sleep and rest
- Movement
- Breath work
- Being in nature
- Yoga / Qigong / Tai Chi
- Prayer/meditation/mindfulness
- Neurofeedback/EMDR Eye Movement Desensitization and Reprocessing)
- Social connections
- Practicing gratitude by recognizing and writing down small things you're thankful for can have a positive effect on the serotonin system, which can help reduce long-term stress





Managing Emotional States

- When we constantly live in survival stress mode, it can result in harmful / negative thoughts, emotions and behaviours
- **Cognitive reframing or positive thinking** Shift your mental attitude, you can influence how you perceive stressors which reduces their impact.
- Meditation & Mindfulness becoming aware of our unconscious patterns and choosing how we want to think, feel and act - enables us to disconnect from stress and external distractions.



Social Connection

- oxytocin which have positive effects on the immune system and connections in the brain
- Support networks at work and in personal life are crucially important for health and resilience

Social connection mitigates long-term stress via leveraging chemicals like serotonin /



The hardest part about change is not making the same choices you made the day before.

Don't wait until stress becomes overwhelming!

Changing behaviours (includes diet and lifestyle), emotions and thoughts enables you to be more resilient to stress now and longer term Tesment to stress now and longer term

Don't Wait For A Crisis



