

# 'Stressed' – An Eye-Opening Perspective on the Effects of Stress

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## STORY AT-A-GLANCE

- › The documentary "Stressed" explores the historical understanding of stress, from ancient times to modern scientific discoveries, highlighting the evolution of our comprehension of the mind-body connection
- › Stress is more complex than commonly thought, encompassing physical, biochemical and mental/emotional aspects. This holistic view recognizes the interconnectedness of these forms and their equal importance in overall health
- › Neuro Emotional Technique (NET) is a therapeutic approach that combines elements from cognitive behavioral psychology, traditional Chinese medicine and muscle testing to identify and release stored emotional stress
- › Research shows NET's potential in helping cancer survivors cope with emotional distress and trauma, as well as alleviating chronic low back pain and reducing inflammatory biomarkers
- › Additional stress management strategies, such as exercise, mindfulness meditation and proper sleep hygiene, are included below

**When people think about stress, they often focus on the mental and emotional pressures they face in their everyday lives – the demands of their jobs, family responsibilities or personal challenges. However, this only scratches the surface of what stress truly encompasses.**

In reality, stress manifests in multiple forms. There's physical stress affecting our bodies, biochemical stress from our nutrition and environment, and the mental and emotional stress we typically recognize. Understanding this broader perspective is crucial because all these forms of stress are equally significant and interconnected.

The mind and body are not separate entities but integral parts of a unified whole. This profound concept is explored in the award-winning documentary featured above, "Stressed." The film is produced by ONE Research Foundation, which aims to advance the understanding of mind-body therapies in health care through research and education, particularly of a method called the Neuro Emotional Technique (NET).<sup>1</sup>

## **How We Came to Our Understanding of Stress**

The documentary<sup>2</sup> begins with a historical perspective on stress, tracing it back to our hunter-gatherer ancestors from 70,000 BC, who lived in a constant state of high alert to survive the threat of predators in their environment. "Even though this seems like an extremely long time ago, we actually react to stress in the environment just like these early people," the film reveals.

Surprisingly, the term "stress" was first used in the 17th century, not in the medical field but in engineering. During this same century, René Descartes, the father of modern philosophy, proposed the idea of mind-body dualism, suggesting that the mind and body were separate entities. This belief significantly influenced the initial understanding of stress as a purely mental phenomenon.

It wasn't until the 20th century that Hungarian-Canadian endocrinologist Hans Selye, now known as the "father of stress research," challenged this belief and began using the term "stress" in biological and psychological contexts. He developed the concept of General Adaptation Syndrome (GAS), which describes the body's three stages of stress response — alarm, resistance and exhaustion,<sup>3</sup> paving the way to our current, more integrated understanding of stress response.

*"When somebody's under a lot of stress, at least emotional stress, a whole cascade of things can be going on, from neck problems to low back problems to stomach problems to anxiety ...*

*Stress causes almost every condition out there. And if we can just take some of that emotional pressure off their system, at least the chemistry of that emotion, their body has a better chance to heal,"* explains Christine Cohn, D.C., one of the experts interviewed in the film.

Dr. Candace Pert, a neuroscientist and pharmacologist, provided further evidence supporting the mind-body connection with her discovery of opiate receptors. Her work led to the identification of neuropeptides, the chemical messengers that facilitate communication between the brain and the immune system, which solidifies the link between mental and physiological responses.

## **Repressed Stress Can Manifest as Diseases**

The film also introduced the concept of conditioned response, a learned reaction that occurs automatically after repeated exposure to specific triggers. This concept, first studied by Russian physiologist Ivan Pavlov, shows how our bodies and minds can be "trained" to react in certain ways to particular stimuli.<sup>4</sup>

For example, if you've had multiple negative experiences in social situations, you might develop anxiety (the conditioned response) whenever you're in a social setting (the stimulus), even if there's no immediate threat. The interviewees emphasized that these conditioned responses could become deeply ingrained and affect your physical and emotional well-being.

If you don't properly process or express the emotions tied to these responses, they can become repressed in your body. As Howard Cohn, D.C., points out in the documentary, "[W]hat you don't express in life you'll repress until it expresses as disease or dysfunction." Deb Walker, D.C., another featured expert, added:

*"Symptoms can show up in the form of anxiety or depression. And in modern days, people are quick to try to take a pill ... [O]ften, it's just masking or covering up a symptom ... [I]f we can get to what is the underlying cause that keeps getting retriggered, lives can change."*

The film also highlights research<sup>5</sup> conducted by the Marcus Institute of Integrative Health at Jefferson University, which investigated how mind-body therapeutic techniques, specifically NET, can help address unresolved emotional stress that contributes to the development and treatment of diseases.

## **What Is Neuro Emotional Technique?**

NET is a therapeutic approach developed by Scott Walker, D.C., who also founded the ONE Research Foundation. On its website, the foundation explains that NET "is based on the concept that unresolved emotional trauma is stored in the body ... Since emotional reality dramatically affects health, using NET to identify and release negatively charged emotions (neuro emotional complexes) allows for normalization of abnormal physical and behavioral patterns."<sup>6</sup>

In the film, Walker shared that he developed NET after observing that some of his patients weren't responding to traditional chiropractic treatments, particularly those who exhibited signs of emotional tension. This belief was further reinforced when he met another chiropractor, Jennifer Lamonica, D.C., who shared cases where patients' spinal misalignments returned when they thought about stressful events.

Walker then applied his hypothesis to a patient who had been in a car accident. Recognizing her fear from the accident as a potential emotional block, he adjusted specific spinal segments associated with the kidney meridian, which is associated with fear in traditional Chinese medicine.

To his surprise, not only did the patient's physical symptoms improve, but she also reported that her fear about the accident had dissipated. This led Walker to develop NET as a systematic approach to addressing the mind-body connection in health.

## How Does NET Differ From Other Stress Management Techniques?

Compared to methods that primarily focus on psychological or cognitive approaches to stress management, NET specifically addresses subluxations, which are misalignments or dysfunctions in the spine or other joints as a result of emotional stress. Its goal is to help the body return to balance or homeostasis.<sup>7</sup> An article<sup>8</sup> in the Journal of Integrative Medicine further explains how this technique works:

*"NET is defined as a multimodal stress reduction mindfulness-based intervention and was founded upon three essential concepts. (1) Cognitive behavioral psychology: sharing aspects in common with standard CBT for traumatic stress, in terms of exposure therapy, NET seeks the reversal or extinction of classically conditioned, distressing emotional responses to trauma-related stimuli, such as stress.*

*(2) Traditional Chinese medicine: NET engages the energy system, in which a patient touches a pulse point that is determined to be involved in the body's stress reaction to a particular stimulus. The links between emotions and the meridian system have been expressed in acupuncture theory for 2,000 years. Current concepts hold that tightness in the fascial system might represent acupoints and meridians in the human body.*

*(3) Muscle testing: This feedback technique is believed to be an indicator of altered physiological function, in which a given muscle is less capable of resisting an outside force when there is some alteration in the function of the nervous system. Specifically, Walker proposed that the muscle test responds to cognitive and emotional stimuli."*

## How NET Can Help People With Cancer-Related Trauma

The study<sup>9</sup> on NET that was featured in the documentary was published in 2017 in the Journal of Cancer Survivorship. Its focus was on cancer survivors who were

experiencing distressing memories related to their cancer diagnosis. They were asked to make a script detailing the traumatic event. These scripts were then read back to them while undergoing functional magnetic resonance imaging (fMRI) scans to measure levels of distress.

"All of these people physiologically reacted to thinking about that stressful event. Heart rate went up or galvanic skin response changed," Dr. Daniel Monti, director of the Marcus Institute of Integrative Health, pointed out in the documentary.

The participants were randomly assigned to either receive the NET therapy or be placed on a waiting list for comparison. Before undergoing NET, all participants showed increased brain activity in regions associated with memory and emotions, such as the parahippocampus and brainstem. After receiving NET therapy, there was a notable decrease in brain activity in these regions when participants recalled their traumatic memories.<sup>10</sup>

This reduction in brain activity correlated with improvements in their emotional well-being, including reduced overall distress, anxiety levels and symptoms related to traumatic stress. This led the researchers to conclude that NET may be effective in helping cancer survivors cope with emotional distress caused by traumatic memories of their cancer experience.

A follow-up study<sup>11</sup> was published in the same journal in 2018, this time investigating the changes in brain function and emotional responses among cancer survivors who received NET compared to those on a waitlist.

Results showed that those who underwent NET experienced notable changes in how different brain regions communicated with each other, particularly involving the cerebellum, a part of the brain involved in motor control and emotional regulation. These changes were associated with reduced emotional and physiological responses to distressing cancer-related memories.

*"This study is an initial step towards establishing a neurological signature of treatment effect for the NET intervention. Specifically, functional connectivity*

*between the cerebellum and the amygdala and prefrontal cortex appear to be associated with a reduction in autonomic reactivity in response to distressing cancer-related memories," the researchers concluded.<sup>12</sup>*

## **NET May Also Help Alleviate Chronic Low Back Pain**

In a 2022 randomized, double-blinded, placebo-controlled study<sup>13</sup> published in the Journal of Integrative Medicine, researchers assessed the effects of NET on patients with chronic low back pain. The researchers analyzed pain and disability levels, as well as inflammatory markers in the participants' blood, including C-reactive protein, TNF- $\alpha$ , IL-1, IL-6 and IL-10, to understand any physiological changes associated with the treatment.

Their findings showed that those who received NET experienced "clinically and statistically significant reductions in pain, disability and inflammatory biomarkers, and improvements in quality-of-life measures." This suggests that NET not only reduced pain and disability but also had a positive impact on the body's inflammatory responses. The researchers further noted:

*"The decrease in four of the five proinflammatory blood biomarkers (CRP, TNF- $\alpha$ , IL-1 and IL-6) in the NET intervention group but not in the placebo group suggests a physiological, systemic effect that appears to be stimulated by this approach.*

*Its practical value may lie in the fact that a wide range of chronic diseases, including diabetes, osteoarthritis, atherosclerosis, cardiomyopathy and asthma have an inflammatory component ...*

*[T]his study's reduction in inflammatory risk factors ... provides a blueprint for future epidemiological research into the application of NET protocol to treat and prevent these potentially fatal conditions. The proposed interrelatedness of mindfulness interventions, as depicted by NET, includes the brain, psychology, physiology and behavior."*

# Addressing Suppressed Emotions Can Help You Return to Joy

The basis of NET – that is, the interconnectedness between physical health and emotional well-being – resonates with the perspective in my upcoming book, "The Power of Choice." While my previous best-sellers have focused on diet and lifestyle strategies for physical health and longevity, this new book approaches health from a different perspective – that of connection to your consciousness.

"The Power of Choice" emphasizes the importance of prioritizing Joy in your decision-making process, empowering you to make healthy choices and align with your authentic Self. I capitalize "Self" and "Joy" to underscore their deeper, transcendent nature. Self represents your unlimited, immortal consciousness, while Joy denotes a profound state of contentment that emanates from within.

By consciously acknowledging and addressing repressed emotions that may contribute to poor health, you not only embrace the power of choice but also create more space in your life to foster Joy. This process is not just about physical healing but also about reconnecting with your true Self and trusting your innate ability to heal.

As the documentary aptly puts it, "The mind and the body are intimately connected and the more we can embrace that, the more we can take control of our health and ultimately take control of our lives."

## Additional Stress-Busting Strategies

While NET offers a promising approach to addressing stress-related issues, it's valuable to explore other accessible stress management strategies that you can practice on your own to help mitigate the effects of stress in your daily life. Some of the strategies I recommend include:

**Reduce cortisol levels** – Cortisol is your body's primary stress hormone, and diet has a lot to do with chronically elevated cortisol levels. To learn how to reduce elevated cortisol levels, check out my article "[Key Strategies to Reduce Your Cortisol Levels](#)."

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**Exercise regularly** – Exercise can improve overall mood and counters the detrimental effects of stress by lowering cortisol levels, your body's primary stress hormone. Decreasing cortisol levels with regular physical activity will help you reduce your risk of stress-related health complications.<sup>14</sup>

I recommend doing moderate exercises such as walking, as they cannot be overdone.<sup>15</sup> Walking outdoors also provides an opportunity to reconnect with nature and spend time under the sun, which can help further decrease stress levels.<sup>16</sup>

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**Practice mindfulness meditation** – Practicing "mindfulness" means that you're actively paying attention to the moment you're currently in. A 2022 study<sup>17</sup> published in the Chinese Journal of Traumatology showed that mindfulness meditation helped reduce the symptoms of post-traumatic stress disorder (PTSD) among military personnel.

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**Think positively** – Maintaining an optimistic outlook in life helps promote the production of chemicals in the brain that break the stress cycle.

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**Engage in creative hobbies** – Participating in hobbies like painting, writing or playing music helps divert attention from stress and boosts satisfaction.

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**Seek out humor** – The old adage that laughter is the best medicine exists for a reason. Laughter triggers the release of endorphins, your body's natural stress-relievers, making it a potent antidote to stress. It also helps promote relaxation.

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**Perform breathing techniques** – Dysfunctional breathing habits are typically developed in response to some type of emotional trauma. The trauma gets embedded in your brain circuits, and when you encounter triggers, they activate specific breathing habits, some of which may significantly lower your carbon dioxide (CO<sub>2</sub>) concentration level.

Unfortunately, many popular deep breathing methods exacerbate the situation, as they promote overbreathing and can trigger a wide range of physiological changes.

My [interview with Dr. Peter Litchfield](#) will help you build better breathing habits and also explain the importance of CO<sub>2</sub>.

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**Get quality sleep at night** – Establish a regular sleep schedule and create a conducive sleep environment to enhance stress resilience and overall health.

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**Increase physical contact** – Incorporate regular, consensual hugs into your daily interactions to release oxytocin, reduce stress and foster emotional bonding.

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**Practice Emotional Freedom Techniques (EFT)** – EFT is a form of psychological acupressure based on the energy meridians used in acupuncture that can quickly restore inner balance and healing. In the video below, EFT practitioner Julie Schiffman demonstrates how to tap for stress relief.

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## Sources and References

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- <sup>1</sup> ONE Research Foundation, Education
- <sup>2</sup> YouTube, Stressed – A Documentary Film
- <sup>3</sup> VeryWell Health, February 3, 2024
- <sup>4</sup> Simply Psychology, February 2, 2024
- <sup>5, 9, 10</sup> J Cancer Surviv. 2017 Aug;11(4):438-446
- <sup>6</sup> ONE Research Foundation, Research Focus
- <sup>7</sup> NET Mind Body, What Is NET?
- <sup>8, 13</sup> Journal of Integrative Medicine. Volume 20, Issue 2, March 2022, Pages 135-144
- <sup>11, 12</sup> J Cancer Surviv. 2018 Feb;12(1):145-153
- <sup>14</sup> Harvard Health Bulletin, July 7, 2020, How Exercise Reduces Stress
- <sup>15</sup> British Journal of Sports Medicine 2021;55:992-1000
- <sup>16</sup> Int. J. Environ. Res. Public Health 2022, 19(4), 2098
- <sup>17</sup> Chinese Journal of Traumatology. Volume 24, Issue 4, July 2021, Pages 221-230