

Putting Your Best Brain Forward During Times of Uncertainty and Stress

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In the past 10 months have you...forgotten where your keys are or what day of the week it is? Have you wondered if you fed the dog or cat? Can't find your cell phone? Can't remember the password to your bank account? Maybe you have actually worn two different shoes out in public. Not sure if you took your medication? Wondering if you ate today? Do not worry, you are not alone, and you won't need surgery. Your awesome brain may have been affected by a phenomenon researchers are calling "Pandemic Brain Fog!"



So, what is pandemic brain fog? "Brain fog is a state of cognitive dysfunction that makes the brain processes slower and less efficient. It predominantly affects memory and, as a result, the ability to store and recall information" (Kristine C. Keane Psy.D., Brain Matters; Dec. 2020). Symptoms may include: forgetfulness, inability to think clearly, feelings of detachment, fatigue, poor task attention, and a general feeling of thoughts being clouded. Health concerns include: decreased immune function, increased appetite (Pandemic 15!), and metabolic changes – blood pressure, blood sugar, altered digestive function, poor quality sleep, depressed mood, and **changes in brain function!** Simply put, researchers believe the primary cause of pandemic brain fog is S-T-R-E-S-S.

No surprise there. SO, WHAT DO WE DO ABOUT IT?

The Awesome Brain

Taking a closer look at the brain to determine how best to intervene and stop the cycle of distress is key to zapping the brain fog. For those who have contracted Covid-19, researcher Deniz Vatansever reports that the virus alters the dopamine and serotonin levels (secreted by the hypothalamus and responsible for pleasure, motivation, and action) which are responsible for our mood, fatigue, and cognitive changes we are experiencing. These symptoms can lead to stress, anxiety, and depression. Pandemic isolation and worry can alter brain chemistry and cause mood disorders such as anxiety, depression, and even suicidal thoughts. (Bryan Robinson Ph.D.; The Right Mindset).

So, What's the Brain Got To Do With It?

The part of the brain activated during uncertain times is the limbic system, our "emotional brain" which is the control center for feelings and emotions. When our emotional brain is activated our thinking brain (pre-frontal cortex/executive function) is compromised. Our cognitive "energy" resources are spent on keeping us safe and dealing with our emotional

response to threat resulting in a decrease in executive function skills. Simple math – there is only so much to go around and in most cases, our emotional brain is working overtime to keep us safe. While in this state of high arousal our brain is also secreting the hormone or “stress chemical” cortisol. If stress becomes long-term and chronic, it can affect brain functions and cause damage.

The Mighty Brain Can Adapt

In the late 1990’s researchers found that stress can actually kill brain cells (Positive Psychology, Dec. 2020). However, there is good news – the brain has the capacity to adapt through a process called neuroplasticity. “It refers to the physiological changes in the brain that happen as the result of interactions with our environment (Celest Campbell, n.d). It is the ability of the brain to form new connections and new pathways and change how the circuits are wired. When we learn something new or perform a task in a new way, our brains rewire to adapt to the new information and new neural connections are formed.

Mind Over Matter

A relationship exists between the concepts of growth mindset and neuroplasticity that impacts how we deal with stress. A growth mindset is one where the individual believes that one’s innate skills, talents and abilities can be developed with practice and determination. Neuroplasticity refers to the brain’s ability to adapt and develop based on new experiences and the formation of new neural connections. When we ruminate on the uncertainties of our current situation, we are reinforcing negative thought patterns thereby perpetuating the distress cycle. We should strive to adapt a growth mindset whenever possible as this perspective is one that embraces the concept of persistence and an appreciation of effort which leads to a vision of hope thereby releasing those “feel-good” brain chemicals and breaking the distress cycle.

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Positive Steps to ZAP Brain Fog

So, how do we rewire our brains with neuroplasticity? Research shows us that there are several methods we can use to boost our neuroplasticity:

- Intermittent fasting – promotes neuron growth, improves overall cognitive function
- Traveling – exposes the brain to new environments and new experiences
- Using mnemonic devices – memory training enhances connectivity and decreased age-related memory loss
- Learning a musical instrument – increases connectivity between brain regions
- Non-dominant hand exercises – forms new neural pathways
- Reading fiction – enhances connectivity in the brain

- Expanding your vocabulary – activates visual and auditory processes
- Creating artwork -boosts memory, empathy, attention and focus
- Dancing – increases neural connectivity
- Sleeping – enhances learning retention
- Mindfulness activities/relaxation techniques – rewires thoughts and emotions to more pleasant, calm and compassionate thought patterns
- Exercise – increases volume of hippocampus
(Courtney E. Ackerman)

Start today – it is time to break out of the pandemic brain fog and foster neuroplasticity.

Little steps, big rewards. No matter what strategy you use, the fact that you are thinking about change and trying some new practices will enhance your brain function. It is time to ease our emotional brain and allow our thinking brain to take control and navigate us successfully through the pandemic brain fog so many of us are currently experiencing.

