

Did You Know Series

Simple Facts to Empower Performance and Wellness

EPISODE 2

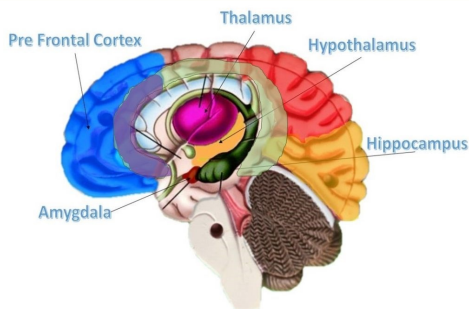
MAY 20, 2021

Taking Control of the Autonomic Nervous System

"We are out of milk again," Zach yells from the kitchen. His thoughts very active, focusing on the multiple tasks required at work, worrying about traffic and the fuel shortage. On top of this, he finds himself still reflecting on last night's argument with his daughter. Out the window, Zach sees the school bus pass by his house, and his daughter is still standing in the kitchen. "Damn it! She missed the bus again!" Zach yells as he heads for the door. Zach's wife desperately yells back. "Wait, hun, can you take her to school?" With anger and frustration, he screams, "I can't; I'll be late for work!" Finally, he slams the door and heads to work.

Zach cannot change the fact his daughter missed the bus. What happened is in the past. But he could have chosen to react to these emotional influences in a different way that maintained a healthy mind, body, and family relationship.

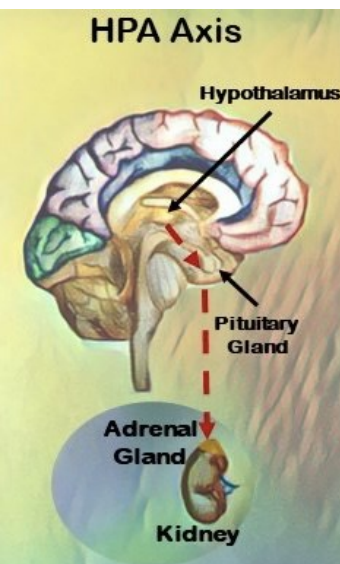
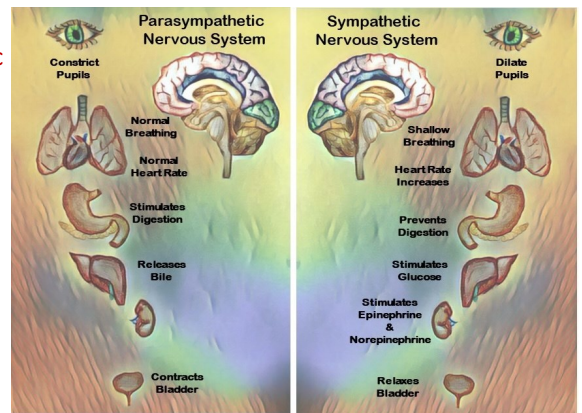
In this episode, you will learn what occurred in Zach's mind and body during this experience, what influenced this behavior, how it impacts overall mind and body health, and how to take control of this harmful response and create a more positive outcome.



The Autonomic Nervous System (ANS) influenced chemical changes in Zach's body due to his choice to allow his emotions to impact behavior. As a result, his body prepared for a perceived emotional threat, triggering a fight or flight response. Environmental factors stimulate the nervous system through the five senses and travel to the brain as quickly as 100 milliseconds. The ANS consists of the Sympathetic Nervous System (SNS), Parasympathetic Nervous System (PNS), and the Enteric System (Digestion). In addition, the amygdala, a member of the limbic system, plays a crucial role in activating the fight or flight response toward the perceived threat.

Zach's amygdala high jacked reasoning, sending signals to the Hypothalamus-Pituitary-Adrenal (HPA) Axis bypassing the Pre Frontal Cortex's opportunity to make a more informed decision. The HPA influenced a chemical response releasing cortisol and epinephrine from the adrenal glands located above the kidneys. During this exchange, Zach's eyes dilated, his breathing became shallow, his heart rate increased, the enteric system shut off digestion, and his ability to make accurate decisions had decreased.

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Being mindful, applying meditation, relaxation, and diaphragmatic breathing can activate the PNS turning off the fight or flight response. In addition, these techniques can be used in real-time, resulting in improved decision-making and healthy behavior. Routine psychotherapy, over time, builds up an immunity to cope with these automatic negative emotions as the brain rewires its emotional control.

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