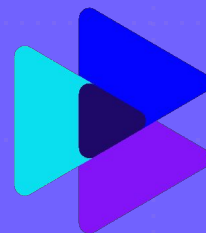


Understanding How Your Brain Works

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the Fasting Method

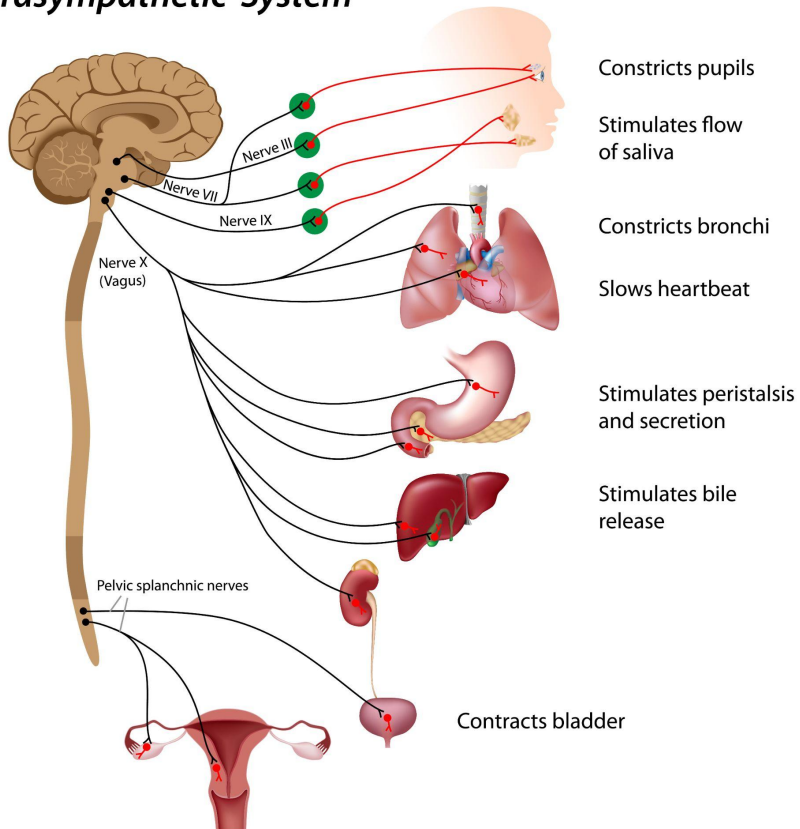
The human brain as a complex structure ...

- Key parts to understand about your brain
 - Prefrontal cortex (PFC) – responsible for regulating thoughts, emotions, and actions through connections with other parts of brain; creates action plans
 - Hippocampus – part of limbic system involved in memory, emotion, and learning; main role is to hold short-term memories and move them to long-term storage
 - Amygdala – little almond-shaped structures (yep, there are actually two!) closely connected to hippocampus to create emotional memories and hypothalamus to activate fight-or-flight response



More about important brain components ...

Parasympathetic System



- Hypothalamus – command center that communicates with the rest of the body through the autonomic nervous system
 - Part of fight-or-flight response (with amygdala)
 - Controls the involuntary functions of body, so in stress response speeds up breathing, increases blood pressure, speeds up heartbeat, and causes dilation or constriction of key blood vessels and small airways in the lungs
- Autonomic nervous system components
 - Sympathetic nervous system
 - activates the alert system or fight-or-flight response;
 - acts like the gas pedal in a car
 - Parasympathetic systems
 - activates the calming, rest and digest response
 - acts like the brake pedal in a car
 - Vagus nerve is part of the parasympathetic nervous system

Other aspects of the brain and nervous system...

- Neurons are key players in how the brain works
 - They are information messengers
 - They utilize electrical and chemical signals to communicate between parts of the brain and between the brain and rest of the body
 - Neuroplasticity is reason to work on changing
 - Create new thought patterns
 - Develop new habits
 - You are able to CHANGE
- Neurotransmitters/neuromodulators/hormones
 - Dopamine – made in the brain; provides a sense of pleasure, but primary function is motivation
 - Serotonin – produced mostly in your gut; known as body's natural "feel good chemical"



The wrestling match between the PFC and amygdala...



- Your prefrontal cortex is the front part of the brain, just inside your forehead
 - Rational processes; reasoning abilities
 - Creates mental maps
 - Adult-like, able to plan
 - Needs to be “online” in order to regulate behavior
 - Brain region most susceptible to exposure to stress
- Your amygdala is tucked deeper inside your old brain
 - It is very archaic in its abilities; no future planning abilities
 - First line of emotional response
 - Key role is to detect and interpret threat
 - Activates stress pathways that impair the PFC functioning and strengthen its own

Suggested ways to apply this brain lesson...

- Understand that the inner struggle in your mind is not a weakness in you
- Make learning stress management a focal point in your self-care
- Gather a collection of recovery tools to help you calm or soothe your activated brain
- Address mental health challenges that further complicate this journey
- Pay attention to other self-care categories that affect your brain, hormones, gut, neurotransmitters, and stress responses
 - sleep
 - movement/exercise
 - what you eat
 - social relationships

