

The Stress Response

Psychology

The two pathways, their timing, and what chronic activation does.

SAM — fast

- Sympathetic-adrenal-medullary
- Seconds
- Adrenaline and noradrenaline
- Heart rate, breathing, blood to muscle
- Digestion suppressed

HPA — slow

- Hypothalamic-pituitary-adrenal
- Minutes to hours
- Cortisol
- Glucose released, immune suppressed
- Negative feedback normally shuts it off

THE DIFFERENCE THAT MATTERS

Chronic activation is the problem: sustained cortisol is associated with impaired immunity, disrupted sleep and hippocampal effects.

Selye's General Adaptation Syndrome: alarm, resistance, exhaustion. The exhaustion phase is where health effects appear.