

# Human Stress Response or Fight-or-Flight Response and Trauma

From Wisdom Projects

The brain's stress response or fight-or-flight response is a physiological state that prepares the body to respond to trauma or danger by releasing hormones and activating the sympathetic nervous system. The response involves several parts of the brain, including:

- **Amygdala:** A part of the limbic system that processes emotions and sends a distress signal to the hypothalamus when it detects danger
- **Hypothalamus:** A command center that produces hormones like adrenaline and cortisol, and communicates with the rest of the body through the autonomic nervous system
- **Adrenal glands:** Release hormones and a burst of energy in response to the hypothalamus's signal.
- **Hippocampus:** The part of the brain that stores memories, and receives a signal from the amygdala to remember the stressful event
- **Neocortex:** A part of the brain that shuts down as the threat increases. Essentially, the "thinking" part of your brain in the frontal lobes goes offline, leading to a loss of rational thought, complex decision-making, and conscious awareness.

The sympathetic nervous system triggers the fight-or-flight response, which provides the body with a burst of energy to respond to danger. The body also experiences other changes, such as the experiences identified in the graphic on this page below.

The fight-or-flight response is designed to help people survive stressful situations. However, if the amygdala continues to signal danger when there is no immediate threat, it can lead to anxiety. People with post-traumatic stress disorder (PTSD) may continue to produce high levels of fight-or-flight hormones even when there is no danger.

At Wisdom Projects, we identify 7 responses that we must de-escalate away from so that we do not let our PTSD overwhelm us. These 7 common experiences of traumatic impact are often identified as "the Fs": **fight, freeze, flop, fawn, flee, finagle, and flashback**. When we train ourselves to de-escalate, find calm, and think through obstacles and pain, we can overcome traumatic response and undo the Fs.

