

# Acute Stress Responses

While there are an infinite number of stressors that can cause a subjective sense of overwhelming stress and distress in a child, there are finite ways that the brain and the body . . . can respond to those stressors.

(De Bellis, 2001, in Blaustein, 2019, p.26)

## Background

The acute stress response is a physiological reaction which individuals experience when facing a perceived threat. This is a bodily system, common to all humans, which supports survival and environmental adaptiveness. The resulting actions from acute stress responses are initiated by automatically selected reactions, often referred to as instinct. When information is perceived as dangerous, there are rapid neurobiological responses that increase heart rate and hypervigilance all aimed at survival. There are four main categories representing the human danger response: fight, flight, freeze, submit/please. It is important to understand that these survival/ trauma responses are most often involuntary and, without appropriate strategies, extremely difficult to control in the moment.



## **Fight: Facing any perceived threat directly**

When fight response is activated it often leads to externalizing behaviours in the face of perceived danger. Whatever the trigger might be, the fight response often includes aggressive engagement. A student yelling at another telling them to leave them alone, or more physically aggressive behaviors would be examples. This externally directed physiological arousal is not only manifested as anger or aggression; it can also include hyperactivity or defiance.



## **Flight: Running (physically or mentally) from the perceived threat**

The flight response is activated when a threat is perceived to be unmanageable. Flight can be accomplished in both physical/mental capacities including physical removal or running, social isolation, sitting alone, or putting on a hat or a hood.

Since the initial fight-or-flight hypothesis, scientists have observed several other reactions to the physiological changes associated with a trauma response. There have been additional reactions that have been noted to be markedly different than simply fight and flight. These include freeze and most recently submit/please.

## Freeze: Inability to move or act against a perceived threat

Freeze is characterized as responding to a threat by becoming immobile and/or indecisive. Thus, the freeze response is activated when the response of fight or flight is determined not to be an appropriate/safe way to react to a stimulus. Freeze can be manifested by behaviours such as vigilance, physical and/or emotional immobility, disengagement, disengagement, and/or withdrawal. It is important for educators to be able to understand disengagement as a possible trauma response.



## Submit/Please/Fawn: Acting to please/accommodate others with the aim to avoid a perceived threat



This response correlates with repeated exposure to traumatic experiences more so than the other acute stress responses. This response is manifested by children/youth who prioritizes pleasing others above all else with the end goal of avoiding danger. Essentially an individual can become overly compliant with certain people. This is done in an attempt to try and mitigate actions from certain people are interpreted as threatening, and when responses of fight and flight and freeze have proven to worsen past exposures.

## Acute Stress Responses and ACEs: Trauma Responses

The activation of our acute stress response systems is dependent on the lifetime collection of interactions with our surrounding environments. This puts children with a history of ACEs at a particularly higher risk for developing PTSD, anxiety, or other diagnoses that interfere with the functioning of a healthy stress response system adapted to a modern and safe environment. Those with an interrupted acute stress response system may experience the activation of an acute stress response in situations that are not threatening (commonly known as a trigger). Some professionals have begun to use the term trauma response to describe the deviation from the typical function of the acute stress response that may result from repeated trauma exposure.

## Physiological Change Examples

- Flushing of the facial extremities; the body is sending more blood to where it is needed in an emergency, the brain, and limbs.
- Muscles become tense, and ready for action. For some this may mean experiencing sensations of trembling.
- Hypervigilance.
- Nausea.
- Dilation of the pupils; fast-tracking eye movements. Scanning the area for all angles of the perceived threat.
- Decreases in pain perception.
- Rapid breathing and heart rate.
- Sweating palms.
- Tense and or shallow breathing.
- Clenching of fists.
- Excessive energy or energy depletion.
- Deadening of eyes and/or tensing of the face.

## How to Identify These Responses

It is hard to notice some of the physiological signs above, especially when engaging in classroom instruction and facilitating educational content for a large class population. Nevertheless, these characteristics may be disclosed to teachers who can then help students understand the feelings they are experiencing. Trauma-sensitive teachers will be able to provide further support in these situations. Internalizing or externalizing behaviours might offer insight for educators in more intense situations where the acute stress response of a student is particularly strong and/or unfitting in the presence of a safe environment.



## Practical Suggestions:

- **Changing the Channel:** Often, children in trauma response are sent ‘for a walk’ to give them time to quell their dysregulation. Unfortunately for students who are in flight, freeze, and/or please, this may only give them more space to continue deepening their trauma response through cycle-thinking or thinking without interruption. Equally, for someone displaying externalizing or fight responses, sending them for a walk may simply direct these responses elsewhere. One practical suggestion is to change the channel. This involves recognizing that trauma responses are being engaged in a classroom space, and responding by offering a change in direction, activity, conversation, or activity to interrupt the body’s auto-responsive functioning. This can be as easy as suggesting a game, a movement break, a breathing exercise for the whole class etc.
- **The Body’s Alarm System:** Supporting students to understand that our bodies have built-in alarm systems that activate when there is a perceived threat and that our bodies engage in actions for survival at that moment (fight, flight, freeze, or please). Teaching them that if their bodies “fill up” with survival energy (even if what set them off wasn’t really dangerous), they can recognize it and navigate it without engaging in the associated behaviours.
- **Understanding our Emotional Intensity Thermometers:** Being able to support students to self-regulate through self-understanding can reduce trauma response behaviours. When young people possess language that allows them to articulate that they are in an acute stress response, they can understand their physiological reaction to a stimulus and start re-shaping their behaviours.

