

Trauma - Accumulative Stress Induced Inverted Core Syndrome

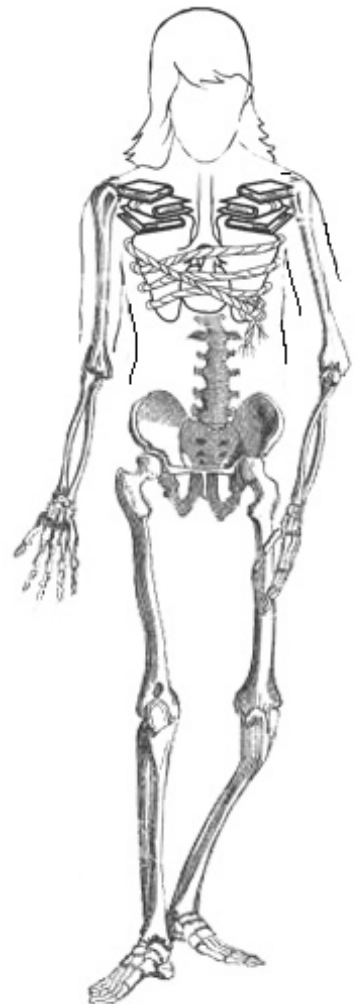
Whether amidst a life impacting physical or emotional trauma or from the accumulative undertow of an arguably imperceptible pattern of stressors, our nervous system at lightning speed, is equipped for coordinating an intricate involuntary or reflexive protective response. The intensity of this response, best known as the fight or flight reaction varies in each individual and within each threat. The goal is to survive and as such, the more often this goal is achieved, the more extensive the impact or the impression this has. Consider then the impact of residing in this fight or flight state repeatedly and for prolonged periods of time.

Inherent to our combined protective yet resilient nature is an adaptive process with both universal and of course unique personal features. In reality as we have progressively weathered the storms, we have unknowingly "armored up" to do battle with the looming forces and in many cases have paid a similarly illusive yet accumulative cost. Often, we utilize the analogy of the "straws that build before breaking the camel's back" to explain such a gradual deterioration of one's wellbeing. To provide however a more definitive explanation to build foundation for resolving such a combined physiological to physical dysfunction I have coined such an existence as an Inverted Core Syndrome.

To invert is to put upside down or in the opposite position, order, or arrangement. Consequently, the term inverted core reflects anatomically (within our mid torso to upper cervical complex) as well as mechanically the region capable of assuming the greatest demands of functional compensation as one's true core (lower torso to pelvic girdle) begins to erode functionally.

To explore the relationship between prolonged fight or flight responses and the resultant Inverted Core, let's first look at the immediate physiological occurrences designed to preserve life on the most serious level, while on a more minor realm yet equally influential, harden ourselves to endure yet another series of accumulating stressors. For example, our:

- Breathing increases to add more oxygen to our blood supply
- Sugar is released from storage and added to the blood stream
- The heart beats more rapidly to send this oxygenated, energy-rich blood to target areas in the body like the large muscle groups needed to separate ourselves from a threat (e.g., an attacker or an encroaching pandemic, cancer etc.) or fight against it.
- To help blood get to target areas more quickly, the blood vessels constrict, and blood pressure increases.
- The large muscle groups needed to fight or flee (like the legs, arms, and chest) become filled with blood, which is why they feel tense.
- Fine motor skills are not as essential as gross motor skills are in this moment, so blood does not go to the fingers and toes – that's why they get cold.
- Non-essential systems are put on pause like digestion and cell growth and repair
- Time seems to slow down, and we get tunnel vision; that helps us focus on survival without any other distraction.



These occurrences make a lot of sense and in a perfect world you would hope when a threat passes that normal order would be restored in short order. Problems occur, however, when the fight or flight system switches on over and over again via variable impressions or otherwise life stressors and if this response continues for prolonged periods of time the body gets knocked out of balance or homeostasis. Of greatest consequence in this developing imbalance is the gradual subversion of primary or diaphragm-based breathing to the role of the secondary or accessory muscles of respiration. Growingly frequent occurrences of such distorted breathing ultimately foster a heightened sensitivity or the body remaining in crisis mode.

Making matters worse, by human nature in the face of such an existence, we are inclined to press on, further

engraining this self-perpetuating pattern into our living existence. Such an existence over time (physiological to physical patterning), can ultimately establish itself into a feedback loop where one's original physical responses elicited by the original physiological prompts in the face of the original threats or stressors ultimately become self-sustaining by way of dependence on an inverted core. This response, patho-mechanical by its nature creates growingly persistent levels of physical pain and tension as well as sources of fatigue and ultimately varying levels of despair.

Fortunately, there is now a process of methodically unraveling such a pathological complexity. By accurately recognizing one's adapted presentation as in fact maladaptive, we can intervene with a scope of interventions designed to both disrupt the pathological nature of one's current existence while simultaneously offering a guided path of interventions designed to restore a healthy new order – "to calm the storm."

From a wholistic perspective, accurately identifying any and all external as well as internal sources (emotional to physical strains) capable of triggering a perpetuating fight or flight response is an essential link in efficiently disrupting such a pathological existence. Once identified and such sources are either eliminated where possible or managed within the following description of care, true healing can begin.

To fully appreciate the extent to which the Inverted Core Syndrome compromises our well-being, we must recognize that each and every diversion from our primary core to an inverted or secondary core ultimately compounds itself to both:

1. Further tax the already compromised respiratory system, leading to still further compensations to maintain an essential breathing capacity
2. Diminishing the capacity of the primary core from ever regaining its foundational role

While recognizing varying severities of this common underlying pathology will exist, the following signs lend themselves to correlating with this underlying pathology:

- Progressively slumped over posture, forward head
- Peripheral sensation alterations with concurrent compromised circulation
- Progressive arthritis of the neck and lower back
- Decreased range of motion and reduced flexibility throughout the body
- Non traumatic rotator cuff tears
- Labored breathing or holding one's breath during daily activities
- Anxiety and depression
- Restless or non-restorative sleep

The Inverted Core Syndrome is also accompanied by many associated symptoms and most commonly include, but not limited to, diffuse to specific pain, muscle soreness and stiffness, and fatigue. Unfortunately, these presentations often are addressed through symptom management as a result of not recognizing the greater contributing influences. Thus, in the presence of persistent pain failing to respond to either normal healing times or traditional medical interventions, consider this information in your quest to restore wellbeing.

At Rehab Innovations, we recognize:

- In the pursuit to restore order we must first disrupt the disorder.
- Restoring the capacity to efficiently breathe is of the utmost importance
- Therapeutic exercise must target the restoration of the primary core and not perpetuate the inverted core.
- Optimal rehabilitation requires optimal resolution of compensatory patterns commonly existing in breathing, walking, and neck and shoulder movements.
- The shoulder, arguably the most emotionally influenced joint system in the body demands an equally sensitive and effective therapeutic influence. Compliment your care with the UE Ranger Calm.
- Persistence and patience are essential – Often we do not realize the extent to which we have lost our physical capacity and resultant well-being until we get it back.

To compliment the knowledge and skills you are currently providing your patients, please consider utilizing the enclosed exercise as a means of integrating such initial therapeutic influences into your patients' daily lives. Down regulate the fight or flight patterned response and return the primary core to its foundational role. "Life becomes therapeutic" when one begins to breathe new life.