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Trauma and the Body

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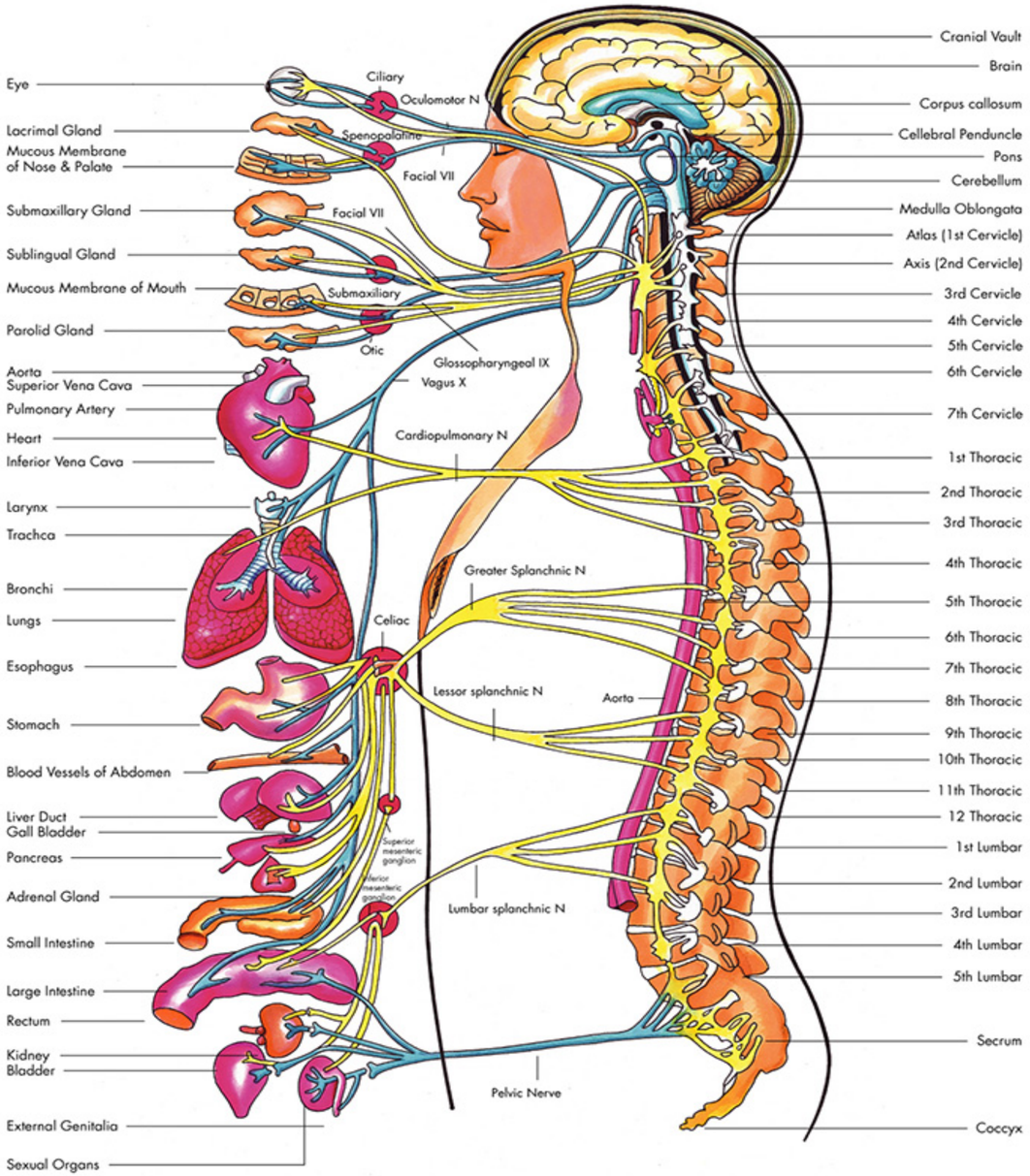
“Trauma happens when any experience stuns us like a bolt out of the blue; it overwhelms us, leaving us altered and disconnected from our bodies. Any coping mechanisms we may have had are undermined, and we feel utterly helpless and hopeless. It is as if our legs are knocked out from under us.”

– Peter Levine

Defining Trauma

- Trauma is a disorder of the Nervous System. It is a physiological disorder more than an emotional or psychological one – although it has profound emotional and psychological implications.
- The key feature of trauma is *perceived* overwhelming life threat (to self or other).
- The process of *neuroception* (which involves the amygdala) decides what qualifies as an overwhelming life threat. This varies greatly depending on age and development, as well as personal history and experience.

The Autonomic Nervous System

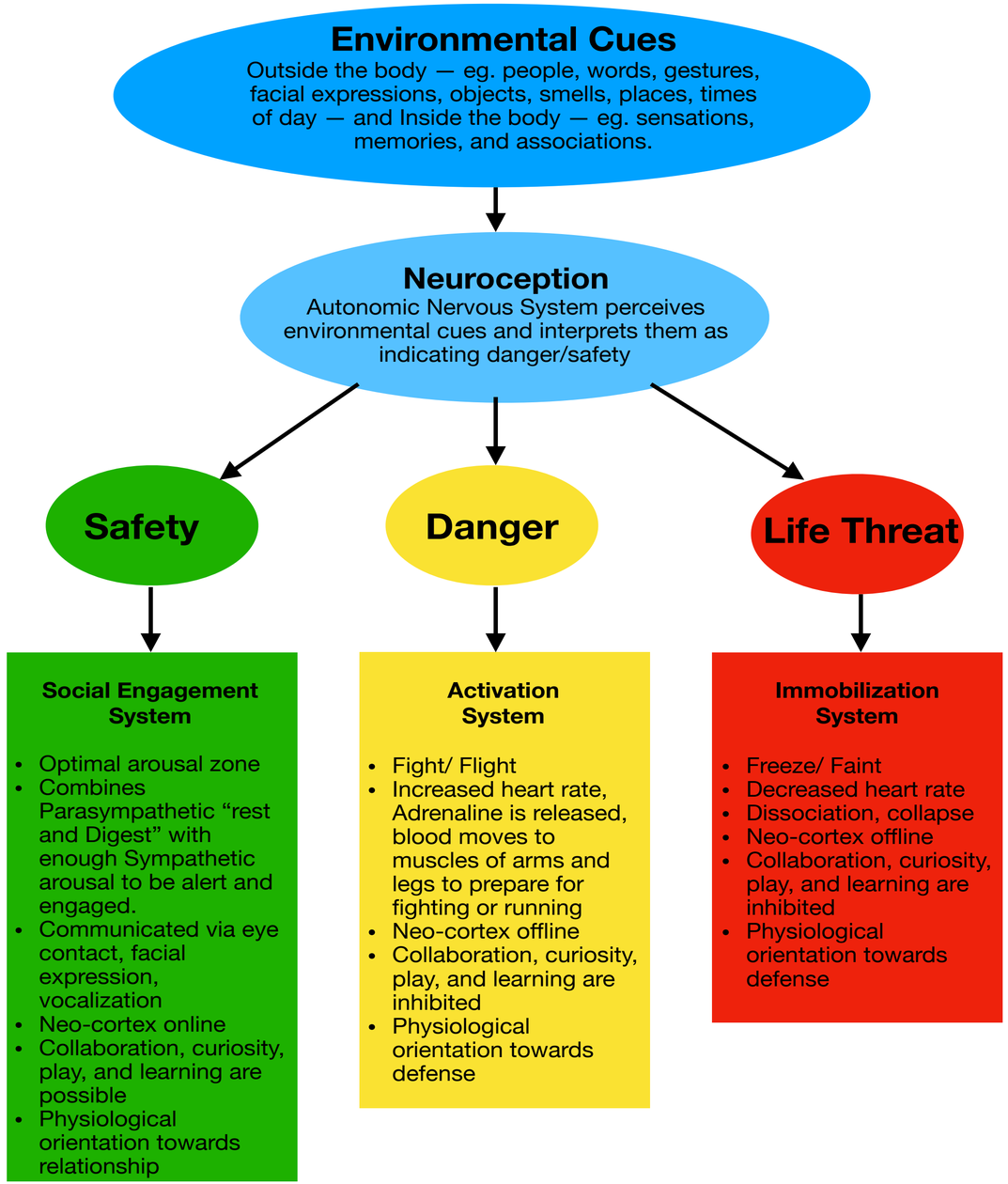


The Polyvagal Theory

- Developed by Dr. Stephen Porges in the early 2000s
- We used to believe that the ANS had two branches, one which increased the energy and activity in our muscles and organs (Sympathetic), and one which decreased it (Parasympathetic). Dr. Porges' research has demonstrated that the ANS in fact has three main branches.
- The ANS activates different branches depending on the degree of threat it perceives in the environment. In conditions of relative safety, the ANS uses the Social Engagement System to support connection with other mammals to resolve challenges in a friendly way. To use the metaphor of a traffic light, the Social Engagement System comes online when the ANS gives a Green Light, signalling safety in the environment.
- The ANS will engage its Activation System (commonly known as the "Fight/Flight" response) when it perceives that there is a moderate threat of danger – one that might successfully be fought with or fled from – in the environment. This response is like a Yellow Light signalling the body to proceed with its defence circuits activated.
- If the ANS perceives that there is inescapable, overwhelming danger in the environment, it will activate the Immobilization System (commonly known as the "Freeze/Faint" response, or "dissociation") to numb the body in preparation for the pain of death. This response is like a Red Light, bringing an abrupt halt to the body's movement.
- Each system has a profoundly different impact on the body …

The Polyvagal Model of the Autonomic Nervous System

(Dr. Stephen Porges)



“Although the body looks inert,
those physiological mechanisms that prepare the body to escape
may still be on ‘full charge’ … When in shock the skin is pale and the
eyes appear vacant. The sense of time is distorted. Underlying this
situation of helplessness there is an enormous vital energy.
This energy lies in wait to finish what has been started.”

– Peter Levine

How the Body Releases Trauma and Restores Goodness

- Whether there are long-term impacts from this intense activation of energy and changes in physiology depends on what happens during and after the event.
- The excess energy must be *physically discharged*, either by responding successfully to the threat (digging oneself out of the landslide, lifting the fallen tree branch from one's legs, etc) or after the event via spontaneous physical tremoring accompanied by large or subtle body movements, and/or emotional expression.
- When a person does not have the opportunity to physically respond to the threat (because they are restrained, overpowered, or it is not safe to do so), and they do not have the personal ability or relational support to physically and emotionally discharge once the threat is passed, the charge may become "trapped" in their Nervous System and lead to PTSD.
- Children in particular require the safety, support, and co-regulation of an attachment figure to enable their body to release the activation of a traumatic event.

Fear of Our Own Reactions

- When a person is unable to physically discharge a traumatic experience, the memory circuits in their brain and body are impacted.
- They do not develop conscious memories of the experience, but instead record them as sensory fragments. The body "keeps the score."
- In the future, whenever that person encounters something that evokes similar sensations (via sound, taste, smell, physical appearance, touch, etc.), it could trigger the same pattern of NS activation, as well as emotional and psychological activation, that occurred during the original event.
- The experience is re-lived by the body as though it were happening in the present.
- Story of Suzie/ Jack …

Common Causes of Trauma in Children

- Accidents and falls
- Medical and surgical procedures
- Violent attacks/acts
- Loss (including divorce)
- Environmental stressors (including loud noises or extremes in temperature for infants)
- ***Remember***:
  It is about perceived life-threat. Different experiences might be threatening to an infant, a child, an adolescent, vs. an adult.

Adapted from Levine & Kline, 2007

What Does Trauma Look Like?

- These four symptoms characterise trauma in all people, adults and children alike. They commonly appear soon after the event, and can be lifelong companions unless appropriately treated:
    - Hyperarousal
    - Constriction
    - Dissociation
    - Feelings of numbness and shutdown (or “freeze”) resulting in a sense of helplessness and hopelessness.

Adapted from Levine & Kline, 2007

In Primary School-Aged Children

- Restless physical activity, heightened startle response, hyper vigilance
- Compulsive talking, aggressive or bullying behaviour
- Inattentiveness, unusual fatigue, withdrawal, social isolation, being bullied by peers
- Repetitive themes arising in play

Adapted from Levine & Kline, 2007

The Key Difference: Terror

Grief	Trauma
Generalised reaction is SADNESS	Generalised reaction is TERROR
Grief reactions stand alone	Trauma generally includes grief reactions
Grief reactions are known to most professionals and some laypeople	Trauma reactions, especially in children, are unknown to the public and to many professionals
Talking can be a relief	Talking can be difficult or impossible
Pain is the acknowledgement of loss	Pain triggers terror, a sense of loss, of overwhelming helplessness, and loss of safety
Anger is generally non-violent	Anger often becomes violent to others or self
Guilt says “I wish I would/ would not have”	Trauma guilt says “it was my fault. I could have prevented it” and/or “It should have been me”
Generally does not attack or “disfigure” our self-image and confidence	Generally attacks, distorts, and disfigures self-image and confidence
Dreams tend to be of the deceased	Dreams are about self as potential victim with nightmarish images
Grief generally does not involve trauma	Trauma involves grief reactions in addition to specific reactions like flashbacks, startle, hypervigilance, numbing, etc.
Grief is healed through emotional release	Trauma is released through discharge and self-regulation
Grief reactions diminish over time	Trauma symptoms may worsen over time and develop into PTSD and/or health problems

Steele & Raider, 2001 adapted by Levine & Kline, 2007

What Can We Do?

Trauma First Aid: 8 Steps

1. Check your own body's response first.
Notice the sensations and emotions in your body and give yourself time to acknowledge what's true and self-regulate. Practice grounding and settling techniques.

2. Assess the situation.
If the child shows signs of shock (glazed eyes, pale skin, rapid or shallow pulse or breathing, disorientation, overly emotional or overly tranquil affect, or acting like nothing has happened), do not allow her to jump up and return to play. You might say something like "We're going to sit (or lie) still together for a while and wait for the shock to wear off." A calm, confident voice will reassure the child that you know what's best.

3. As the shock wears off, guide the child's attention to his/her sensations.
Softly ask the child how he feels in his body. Reflect and repeat what you hear him say, checking for agreement. Ask progressively more specific questions that allow the textures, size, shape of his sensory experiences to be explored and described.

4. Slow down and follow the child's pace by careful observation of change.
Timing is everything. Allowing a minute or two of silence between questions allows deeply restorative phsychological cycles to engage. Too many questions asked too quickly disrupt the natural course. Your clam presence and patience are sufficient to facilitate the movement and release of excess energy. This process cannot be rushed. Be alert for cues that let you know a cycle has finished (eg. Yawning, spontaneous sigh or deep relaxed breath, the cessation of crying or trembling, a smile, the making or breaking of eye contact, etc). Another cycle may follow. Keep the child focused on sensations just a few more minutes to make sure the process completes. If the child shows signs of fatigue, stop. There will be other opportunities to complete the process.

Adapted from Levine & Kline, 2007

What Can We Do?

Trauma First Aid: 8 Steps

5. Keep validating the child's physical responses.
Reassure the child that her physical and emotional responses are normal and healthy ("That's right, just let the scary stuff shake right out of you") while reminding her that whatever has happened is over and she will be ok.

6. Trust in the child's innate ability to heal.
Developing comfort and connection with your own sensations will make it easier to stay present with a child in distress, and to trust that their body will heal, if given the right support and time.

7. Encourage the child to rest even if he doesn't want to.
Deep discharges may continue during rest and sleep.

8. Attend to the child's emotional responses.
Later, even the next day, when the child is rested and calm, set aside some time to talk with the child, go over the details of the experience together, and help her to reflect on and process her emotions about what happened. If she is very young, it might be helpful to do some drawing or play together, in which the experience can similarly be unpacked and processed.

Adapted from Levine & Kline, 2007

The Magic in Me

We're going to play, but before we begin,
I want you to find your own magic within.
Just take some time to feel and to see
All the great things that your body can be.

Pretend you're a tree with your branches so high
That you can reach up and tickle the sky.
What's it like to be strong like a big old oak tree?
With roots in your feet and your leaves waving free?

Now you're connected to the earth and the sky
It may make you laugh, it may make you cry.
It doesn't matter where you go with the flow
With your branches up high; your roots way down low.

Hear the breath in your body, if you listen it sings.
Now you are ready for whatever life brings.

Levine & Kline, 2007

Learn More

- **Books**:

  "Trauma Through a Child's Eyes: Awakening the Ordinary Miracle of Healing. Infancy Through Adolescence" (2007). Peter Levine & Maggie Kline.

  "Smart Moves: Why Learning is Not All in Your Head" (1995). Carla Hannaford.

- **Body-Informed Leadership:**

  8-Month Online Foundations Programme.

  January 2021.

  www.BodyInformedLeadership.org