

Complex Trauma and Body Centered Healing, Part 1

What is trauma? / Trauma in the Nervous System

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People have survived by holding themselves in a certain way and breathing in a certain way. Be aware of good-bad judgment.

Honor people where they are.

David Emerson, author of Overcoming Trauma Through Yoga



Sometimes learning about trauma can feel overwhelming; during this presentation please feel welcome to take care of yourself as needed.



If you like, you might take a moment or two here, to breathe, stretch, and notice how you feel, before going on.





Trauma creates change that you don't choose.

Healing creates change that you choose.

What is trauma?



Trauma is when overwhelming experiences of harm leave lasting physical and emotional effects





Experiences of:

- Physical or emotional harm
- A single incident or repeated harm





• Harm from

neglect, abuse, violence, war, domination, oppression accidents, natural disaster illness, or loss.





• Complex trauma is trauma caused by human harm that is often repeated, cumulative, or chronic.





Trauma lives in the nervous system the communication system of your body

After overwhelming experiences of harm, a person's nervous system can become stuck in habitually, unconsciously, and uncontrollably preparing for bad things to happen.

This is trauma.





Researchers used to believe that a person could not heal from trauma, only learn how to live with it.

In recent years, brain research has shown that many aspects of trauma can be alleviated, and even healed





Trauma affects:

The Central Nervous System (Brain & spinal cord)

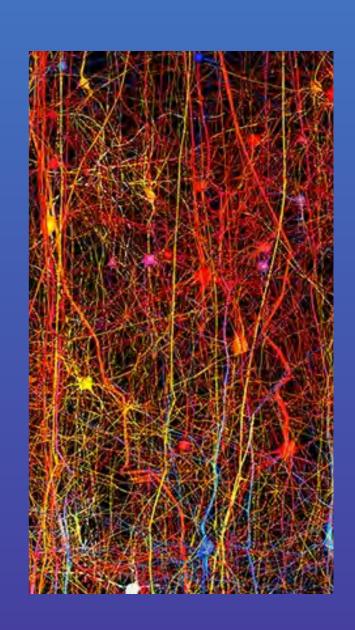
and

The Peripheral Nervous System (Somatic and Autonomic Nervous Systems)





Your nervous system works to ensure your survival and well-being

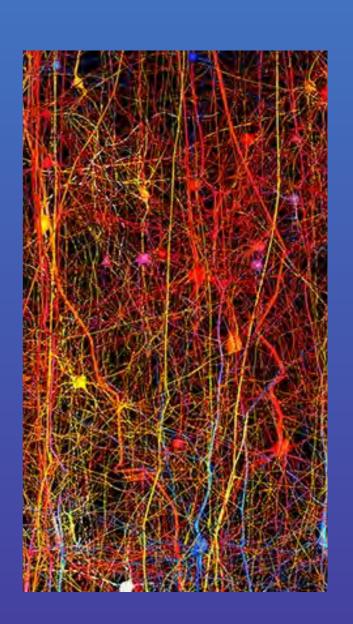


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 Assessing needs: food, rest, shelter, connection

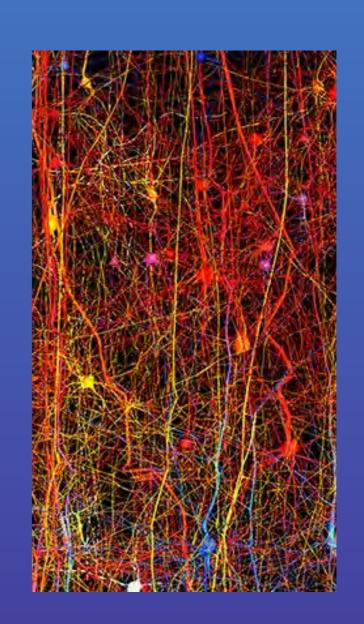
Creating maps
 of where to go to satisfy needs





 Generating energy and actions to get you there

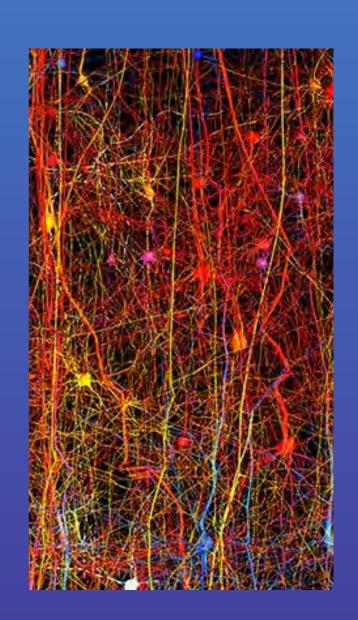
> Warning of dangers and opportunities on the way





 Adjusting actions in response to circumstances

• Collaborating with others to survive and thrive







To do these things, your nervous system receives information from external senses:

taste, touch, smell, hearing, vision





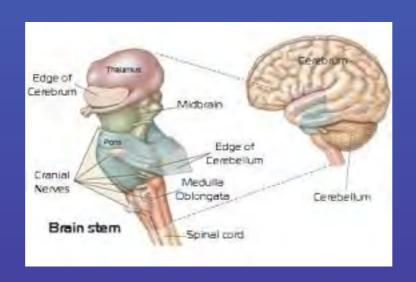
And from internal senses, or interoception:

physical sensations associated with things like hunger, thirst, tiredness, desire, anxiety, relief, sadness, calm, anger, joy...



Sensory information goes first to unconscious parts of your lower brain (brainstem and thalamus) which feel without thinking:

Am I in danger? Am I safe?



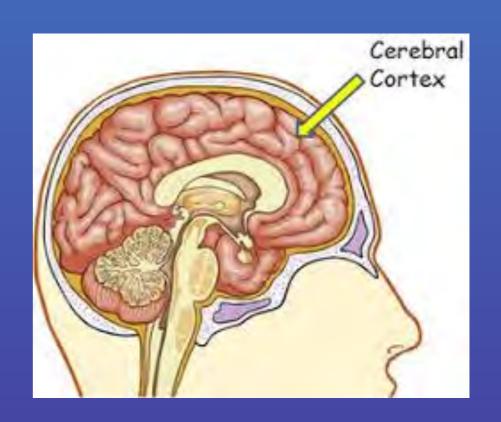




Sensing no immediate danger...

Sensory information goes more slowly to the cerebral cortex

for conscious thinking and response.







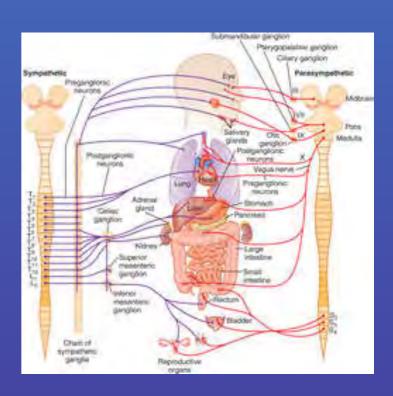
Sensing immediate danger—No time for thought!

Thalamus and amygdala trigger fast-track response in the Autonomic Nervous System











The Autonomic Nervous System (ANS) regulates:

- heartbeat
- breathing
- digestion
- blood pressure
- release of hormones





The ANS has three main ways of responding to needs:



Calm alertness, connection, communication

Upper Parasympathetic Nervous System
Ventral vagal complex: heart rate variability, vagal tone, vagal flexibility
Similar to Sattva, in yoga traditions



Activation: wide awake, ready for action

Sympathetic Nervous System; Similar to Rajas, in yoga traditions



De-activation: Sleep, digestion, shut-down

Lower Parasympathetic Nervous System

Dorsal vagal complex; Similar to some interpretations of Tamas, in yoga traditions



Here's a story about the Autonomic Nervous System





You see a Lion
Your brainstem signals threat!

Sympathetic Nervous System fast-track danger response:

Fight or Flight

Hypothalamus sends adrenalin and cortisol Energy rushes to extremities for running Faster heart rate, breathing Tunnel vision... digestion shuts down



If you successfully defend yourself or escape, then:

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Afterwards...

Rest and Recover

Lower Parasympathetic safety response Rest

Upper Parasympathetic safety response Recover

Brain secretes dopamine and serotonin Heart rate goes down Digestion resumes Breathing slows down

If you avoid harm, usually no trauma stays in your body





But...

What if you can't fight, or escape, and the Lion comes closer?

Freeze!



Sympathetic danger response Brain very alert

Lower Parasympathetic danger response Body frozen



Later on, tension that hasn't been released may stay in your body as trauma



Or what if, worse...
The Lion catches you:

Shut down to numb the pain



Lower Parasympathetic response to inescapable harm: Switched off, dissociated



Later on, shut-down response from harm may stay in your body as trauma



Afterwards, your Autonomic Nervous System may get stuck in a fast-track danger response, always anticipating lions:

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fight or flight

freeze

shut-down



This stuck place is trauma.

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"(With trauma) the brain keeps secreting stress chemicals and the brain's electrical circuits continue to fire in vain. Long after the actual event has passed, the brain may keep sending signals to the body to escape a threat that no longer exists...."

—Bessel van der Kolk, The Body Keeps the Score





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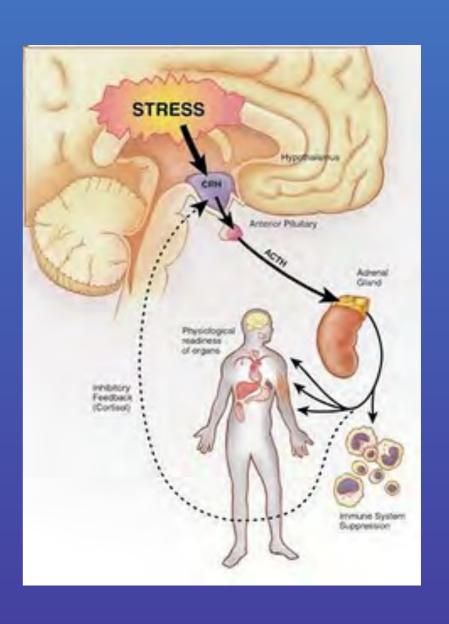
Three stages of stress response

- Autonomic Nervous System (ANS)
 Immediate: fast-track reaction gets you started
- Neuroendocrine
 Lasts a little longer:
 Release of hormones epinephrine,
 norepinephrine to sustain muscle
 and nervous system activity
- Endocrine

A slower, longer lasting stress response: Hypothalamus-Pituitary-Adrenal axis— releases cortisol

Short term: Increases energy, memory, immunity, pain suppression

Long term:
Impairs and decreases cognition, immunity, bone density,
muscle tissue; increases blood sugar, blood pressure



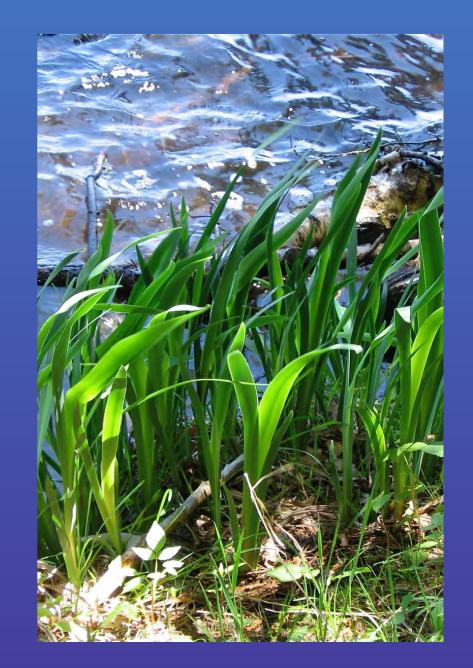
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The sooner a person receives effective help after trauma, the less likely it is that traumatic stress will stay in their body over time.

But even decades after a trauma occurs: it is never too late to heal, and never too late to strengthen the resilience in your nervous system.



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If you like, you might take another moment or two now to breathe, stretch, center yourself in the present... and notice how you feel



Thank you for your interest in this presentation.

It was created out of a desire to make information about complex trauma and body-centered healing as accessible as possible. If you share that intention, then you're welcome to share material from the presentation with others—but please acknowledge the sources, out of respect for the work involved.

I am grateful to the trauma researchers listed at the end of this presentation for their research and insights into trauma and healing; and still more grateful to my clients, who teach me so much.

I offer various versions of this presentation in person (in English and in Spanish), and also facilitate TCTSY sessions for large groups, small groups, and individuals.

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This presentation is based on the work of:

David Emerson E-RYT, author of Overcoming Trauma Through Yoga, and Trauma-Sensitive Yoga in Therapy

Bud Craig PhD, author of How Do You Feel? Interoception: the sense of the physiological condition of the body

Stephen Porges PhD. author of Polyvagal Theory: Neurophysiological Foundations of Emotions, Attachment, Communication, and Self-Regulation

Laura van Dernoot Lipsky, social justice activist and author of Trauma Stewardship: An Everyday Guide to Caring for Self While Caring for Others

Elaine Miller-Karas LCSW, author of Building Resilience to Trauma: The Trauma and Community Resiliency Models

And trauma researchers with the NICABM Treating Trauma Master Series: Pat Ogden PhD., Dan Siegel, MD. Ruth Lanius, MD, PhD, Ron Siegel PhD, Ruth Buczynski Phd., Peter Levine PhD., and Bessel van der Kolk MD; also Wendy D'Andrea PhD.

And, yoga teacher-trainers Marlysa Sullivan MPT, C-IAYT E-RYT and Hala Khouri MA, E-RYT

Thank you to all of these people for their work supporting trauma prevention and healing.