# Trauma, The Brain's Response and Helping Survivors Recover

Resilience is like .....

Trauma is like.....

### Trauma Is All Around Us

- 1 in people in the US have been sexually abused as children
- 1 in people have been beaten by their parents
- 1 in partners engage in physical abuse
- 1 in people have grown up with alcoholic relatives
- 1 in people have witnessed their mother being beaten.

Van der Kolk (2014) The Body Keeps the Score

### Thinking About and Characterizing Trauma

### Trauma is:

- •
- •
- •
- .
- •

Scale and Impact:

Neurobiology of Trauma:

Causes of Trauma

## Influencers:

- •
- •
- •
- •

## PTSD Post-Traumatic Stress Disorder

- 1) The Experience of a Major Threat (to me, to someone I witnessed, to someone who told me)
- 2) Continue to experience unwanted reminders, reexperiences of that experience (nightmares, flash backs, exposure responses)
- 3) Active Avoidance of trauma-related thoughts or feelings
- 4) Negative alterations in mood (self-blame, depression, sense of isolation)
- 5) Changes in arousal and reactivity (irritable, hypervigilance, difficulty sleeping)
- 6) Symptom duration more than a month
- 7) Changes in our ability to function

Stress A Continuum

Eustress

Distress

Trauma

Autonomic Nervous System

Sympathetic NS

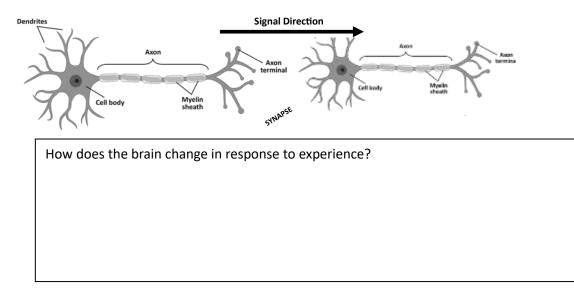
Parasympathetic NS

## Our Stress Response

Brain-Related Changes:

Body-Related Changes:

## The Brain and It's Response to Experience



The Prefrontal Cortex:

Amygdala:

# Responses To Trauma

EMOTIONAL	COGNITIVE	BEHAVIORAL	PHYSICAL	SPIRITUAL
Fear/Terror	Confusion	Social Withdrawal	Dry Mouth	Emptiness
Anxiety	Hypervigilance	Self Harm	Twitches/Tremors	Loss of Meaning
Panic	Suspiciousness	Violence towards others	Weakness	Doubt
Paranoia	Flash Backs	↑Substance Use/Abuse	Nausea/Vomiting	Looking For a Magical Cure
Anger/Rage	Difficulty Focusing	Appetite $\Lambda  abla$	Chest Pain	I am Being Punished
Depression	Memory Changes	Sleep $\Lambda \Psi$	Blood Pressure 个	Loss of Direction
Shame	Decision Making $oldsymbol{ u}$	Always on Edge	Heart Rate 个	Cynicism
Guilt	Overly Critical	Startle Response ↑	Shallow Breathing	Bargaining With God
Sadness	Blaming Others	Without Words	Diarrhea	Crisis in Faith
Numbness		Suicidality	Exhaustion	

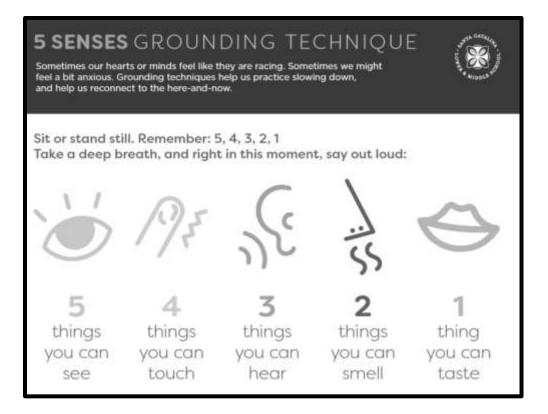
# Emotional/Cognitive/Behavioral Indices of PFC and Amygdala Normal vs. High Stress or Trauma

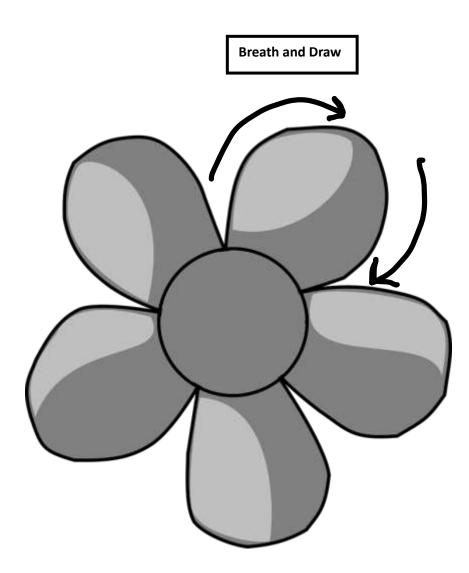
Emotional/Cognitive/Behavioral Effects	PFC and Amygdala In Correct Balance	PFC and Amygdala Out of Balance
Anxiety	Low	High
Startle	Normal	Exaggerated
Fearfulness	Normal	High
Threat Monitoring	Normal	Hypervigilant
Decision Making	Normal	Unable or Making Rash Decisions
Critique of Self and Others	Normal	Overly Harsh
Assessment of Risk	Able to Detect Risk	Poor—either risk avoidant or running towards high risk
Emotional Regulation	Normal	Hyper- or Hypo-aroused
Assessment of Emotion in Another's	Able to Detect and Connect	Misreading cues and often to the
Face (also about empathy)		negative
Entering Fight/Flight/Freeze	Normal (High threat necessary)	Easily activated regardless of stimulus

### The Window of Tolerance

HYPO-AROUSAL	WINDOW OF TOLERANCE	HYPER-AROUSAL
Flat affect	Calm	Overwhelmed
Sleepy	Alert	Anxious/agitated/panic
Foggy	Able to concentrate	Shaking
Shut down mode	Focused	Sweating
Not able to problem solve	Able to problem solve	Impulsive
Limited body awareness	Aware of body/self/mind	Breathing increases
Numb	Present	Heart rate increases
Confused	Able to communicate	Angry
Faint	Able to make decisions	Can't sit still

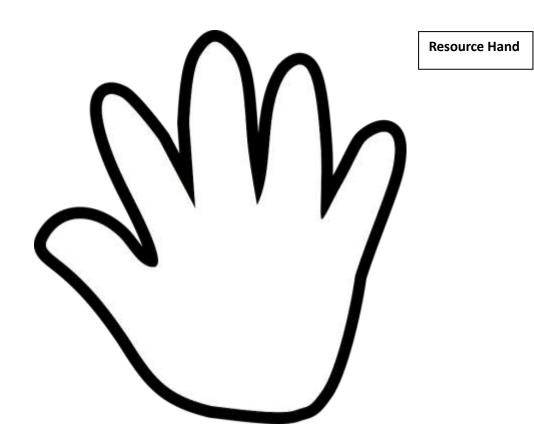
Notes:





Why Might This Help Us Return to The Window of Tolerance?

© First Aid Arts, 2019



© First Aid Arts, 2019

	315	28
Singing	Dancing to music	Making a cup of tea
Artistic Activities	Sitting quietly and coloring	Finger painting
Drumming	Listing all my supports	Working with clay
Breathing	Listing my happy places	Using a stress ball
Grounding Exercises	Crunchy foods	Using resistance bands
Rocking chair	All kinds of exercise	Swinging

Activities that help us feel safe in our bodies, help us to engage our senses (see, hear, smell, taste, touch and smell) help us return towards calmness. It actually helps the brain to recover.

What Does the PFC Do For Us?

Notes on Resilience

#### Some References

<u>Trauma Stewardship: An Every Day Guide to Caring for Self While Caring For Others</u> (2009). Laura van Dernoot Lipsky with Connie Burk. An excellent book for all who serve others who have survived trauma.

Trauma is Really Strange (2015). Steve Hanes. A graphic depiction of how trauma affects us. May be very useful especially with teenagers or for people who don't do a lot of reading.

<u>A Terrible Thing Happened</u> (2000). Margaret M Holmes. A non-triggering book about how trauma affects us. Written for children but also affective with adults. Contains a reference section about working with children who have been traumatized.

<u>The Body Keeps the Score</u> (2014). Bessel Van Der Kolk. This book holds more material about trauma, its effects and how to move towards recovery than any other.

<u>Try Softer: A Fresh Approach To Move out of Anxiety, Stress, and Survival Mode and into a life of Connection and Joy</u>. (2020) Aundi Kobler. Trauma in childhood often leaves us with the capacity to white knuckle through life, but long term this is not sustainable. Written from a Christian perspective by a survivor who is also a therapist.

#### https://www.crs.org/our-work-overseas/research-publications/singing-lions

Singing with Lions is a several day course created by Catholic relief services to help children who have faced trauma. It is gentle and beautiful and can be downloaded at the above website.

#### https://www.firstaidarts.org/

A 3 day training program that uses art to help trauma survivors recover. Very user friendly and helpful. They offer courses on the west coast and some other cities too.

#### https://emu.edu/cjp/star/

Five day training program that helps people understand what trauma is, what it does, and how we can help others heal.



Neuroscientist/Trauma Trainer

Open Honest Deliberate Dialogue Can Help Us Heal Deliberate Dialogues 938 College Avenue Harrisonburg, VA 22802 Kreider05@gmail.com

415-830-7430