

# Trauma: The Missing Link in School Reform



A PARTNER IN  
**NCTSN**

The National Child  
Traumatic Stress Network



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[www.nctsn.org](http://www.nctsn.org)



Akron Children's Hospital

# Learning Objectives

## What Will I Learn?



How to define trauma

Types of trauma

How trauma impacts a students brain & learning

How trauma informed school can help



# FACT: Trauma can impact school performance

- Lower GPA
- Higher rate of school absences
- Increased drop-out rate
- More suspensions and expulsions
- Decreased reading ability

Child Trauma Toolkit for Educators , October 2008 The National Child Traumatic Stress Network  
[www.NCTSN.org](http://www.NCTSN.org)



# FACT: Trauma can impair learning.

- Decrease ability to:
  - Concentrate
  - Focus
  - Pay attention
  - Memory and recall
  - Cognition
  - Organize
  - Process information
  - Plan
- Results feelings of:
  - Frustration
  - Anxiety



# **FACT: Traumatized children may experience physical & emotional distress**

- Physical symptoms: headaches & stomachaches
- Poor control of emotions
- Inconsistent academic performance
- Unpredictable/impulsive behavior
- Over or under-reacting to bells, physical contact, doors slamming, sirens, lighting, sudden movements
- Intense reactions to reminders of their traumatic event



# **FACT: You can help a student who has been traumatized**

- De-activate students stress response system
- Create a repertoire of positive experiences
- Help students identify feelings
- Teach positive coping skills
- Build relationships with caregiver(s) to support students
- Refer to community resources
- Reporting suspected abuse/neglect





# Types of Traumatic Events

- Physical, emotional, or sexual abuse
- Foster care placement
- Parent incarcerated
- Abandonment & neglect
- Community violence
- Medical trauma, injury, illness
- High mobility
- Death including suicide and murder
- Witness to drug use
- Homelessness
- House fires
- Domestic violence
- Serious accidents
- Natural disasters





# Potentially Traumatizing Events in School

- Bullying/Cyber-bullying
- Class and hallway transitions
- Using the restroom
- Riding the bus
- Gym
- Observing physical altercations
- Fear of being attacked by other students
- Unstructured time
  - Recess
  - Lunch
  - Common area's



# What is Trauma?

The experience of a real or perceived threat to life or bodily integrity

OR

the life or bodily integrity of a loved one

AND

causes an overwhelming sense of terror, horror, helplessness, and fear



# Trauma creates feelings of



Helplessness



Vulnerability



Loss of safety



Loss of control



Intense fear



Intense shame



Anger

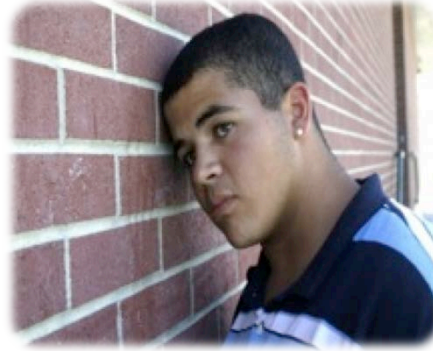


# Rates of Trauma



1 in 4 students  
have experienced a  
traumatic event

1 in 10 students  
have been sexually  
assaulted



**15.5 million**  
children live in  
households where  
domestic violence  
has occurred within  
the past year



In 2010, **33,947**  
children in Ohio  
(12.5 per 1,000)  
were maltreated:  
47% -neglect  
39%-physical abuse  
18.5%-sexual abuse  
83 children died as a  
result of abuse



# How are students exposed to traumatic events?

Directly Experiencing

Witnessing: seeing, hearing, or seeing the aftermath

- Includes watching events like Hurricane Sandy or school shootings on TV

Learning that a traumatic event occurred to a close friend or family

Repeated or extreme exposure to details of traumatic event

# Types of Trauma

## Acute trauma

A single traumatic event that is time limited

A variety of feelings, thoughts, and physical reactions that are frightening



# Types of Trauma

*(continued)*

## Chronic trauma

Has cumulative effects

Exposure to multiple traumatic events

- Such as domestic violence, serious accidents, victim of community violence, or physical abuse, neglect, or war





# Types of Trauma

(continued)

## Complex trauma

Multiple interpersonal traumatic events from a very young age and recurring over a long period of time.

Can derail physical, emotional, and social development.

Influences the way youth think, feel, behave, and interact with others. Influences the way they see the world.

Usually caused by adults entrusted with the child's care

Source: Cook, A., Spinazzola, J., Ford, J., Lanktree, C., Blaustein, M., Cloitre, M., ... van der Kolk, B. (2005). Complex trauma in children and adolescents. *Psychiatric Annals*, 35(5), 390-398.



# Types of Trauma

## What About Neglect?

Failure to provide for a child's basic needs

Perceived as trauma by an infant or young child who is completely dependent on adults for care

Opens the door to other traumatic events

May interfere with a child's ability to recover from trauma



# Types of Trauma

*(continued)*

## What about Poverty?

Creates high levels of stress

The student's basic needs are not being met

Opens the door to other traumatic events

May interfere with a child's ability to recover from trauma



# Adverse Childhood Experiences

## The Adverse Childhood Experiences Study



Dr. Felitti – Kaiser Permanente



Dr. Anda – Center for Disease Control and Prevention



# ACE Categories

## Abuse

- Emotional Abuse
- Physical Abuse
- Sexual Abuse

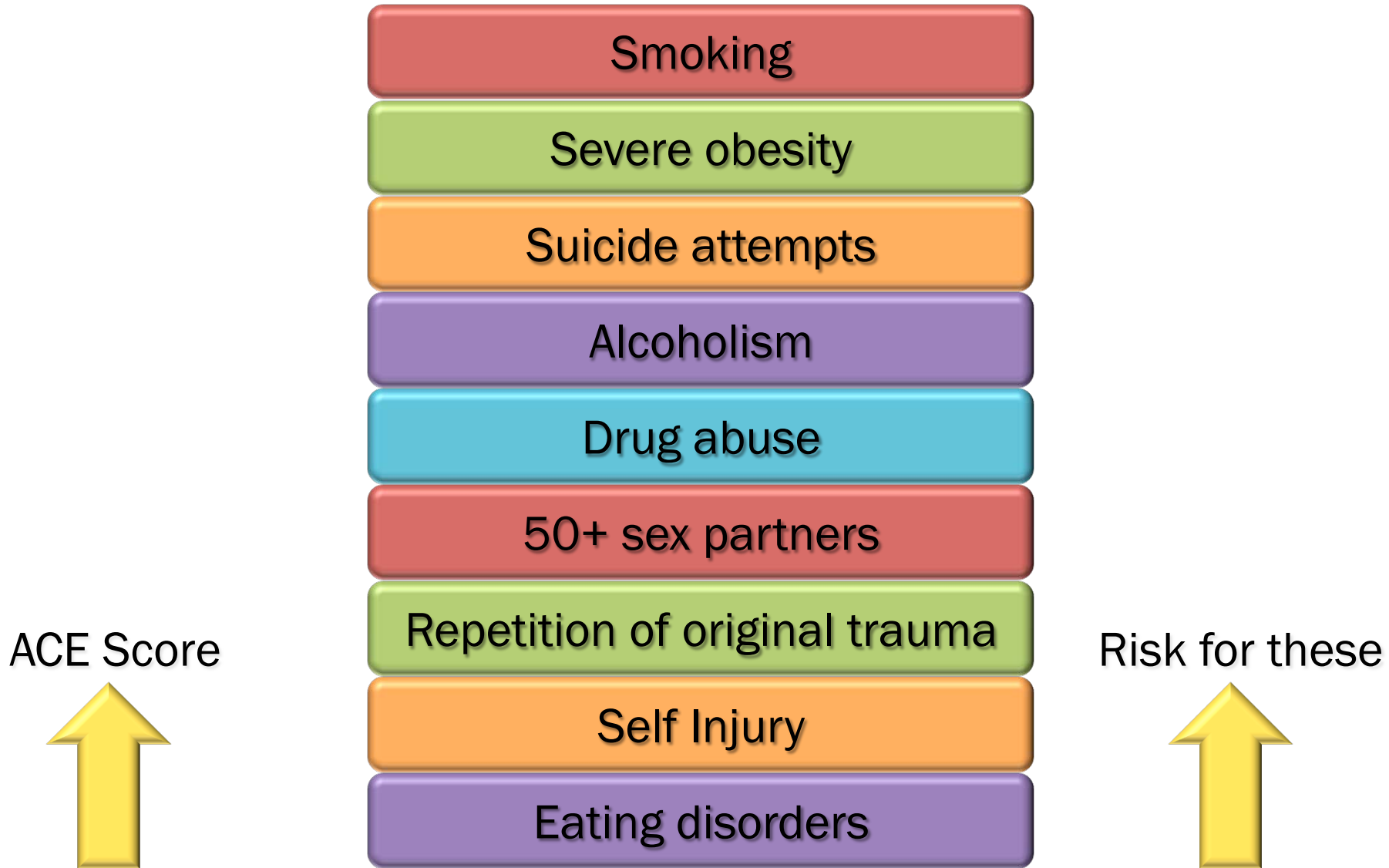
## Neglect

- Emotional Neglect
- Physical Neglect

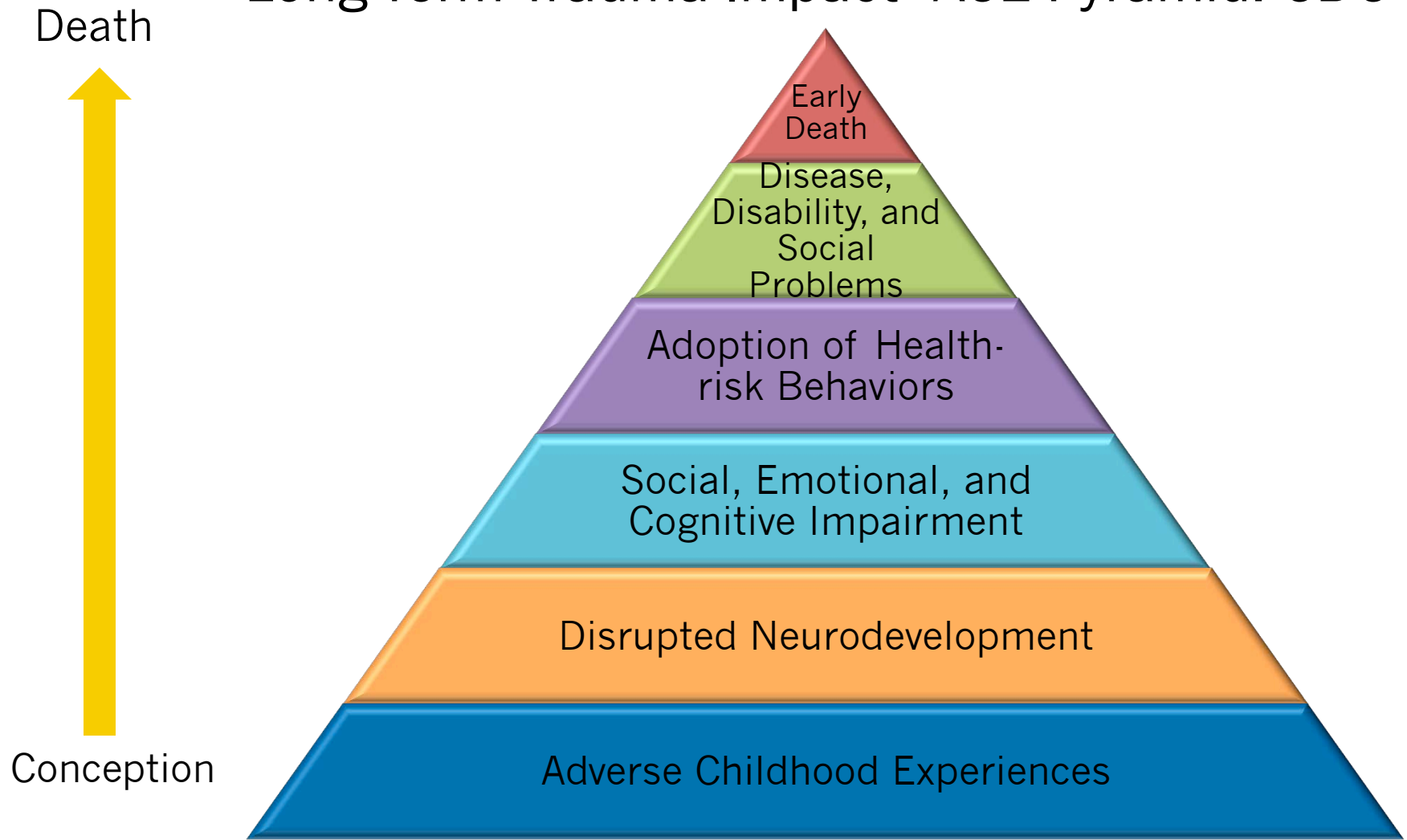
## Household Dysfunction

- Mother Treated Violently
- Household Substance Abuse
- Household Mental Illness
- Incarcerated Household Member
- Parental Separation or Divorce

# Negative Coping Mechanisms



# Long-Term Trauma Impact-ACE Pyramid: CDC



Mechanisms by Which Adverse Childhood Experiences Influence Health and Well-being Throughout the Lifespan





# Stress Categories

## Positive

Brief increases in heart rate, mild elevations in stress hormone levels.



## Tolerable

Serious, temporary stress responses, buffered by supportive relationships.



## Toxic stress

Prolonged activation of stress response systems in the absence of supportive relationships.

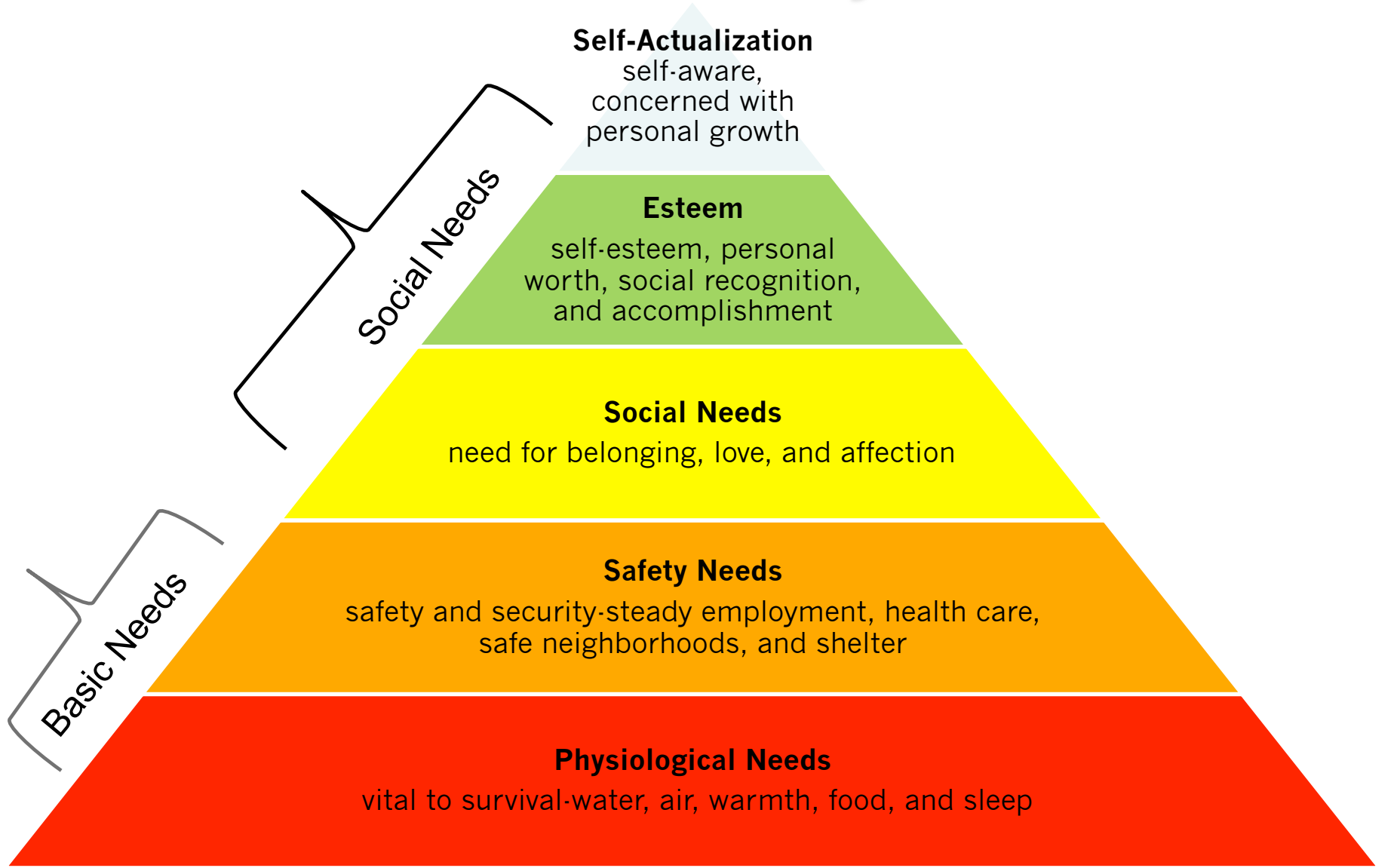


## Traumatic Stress

The physical and emotional responses to threatening situations that overwhelms a child's ability to cope which, elicits feelings of terror, powerlessness, and out-of-control physiological arousal.



# Maslow's Hierarchy of Needs

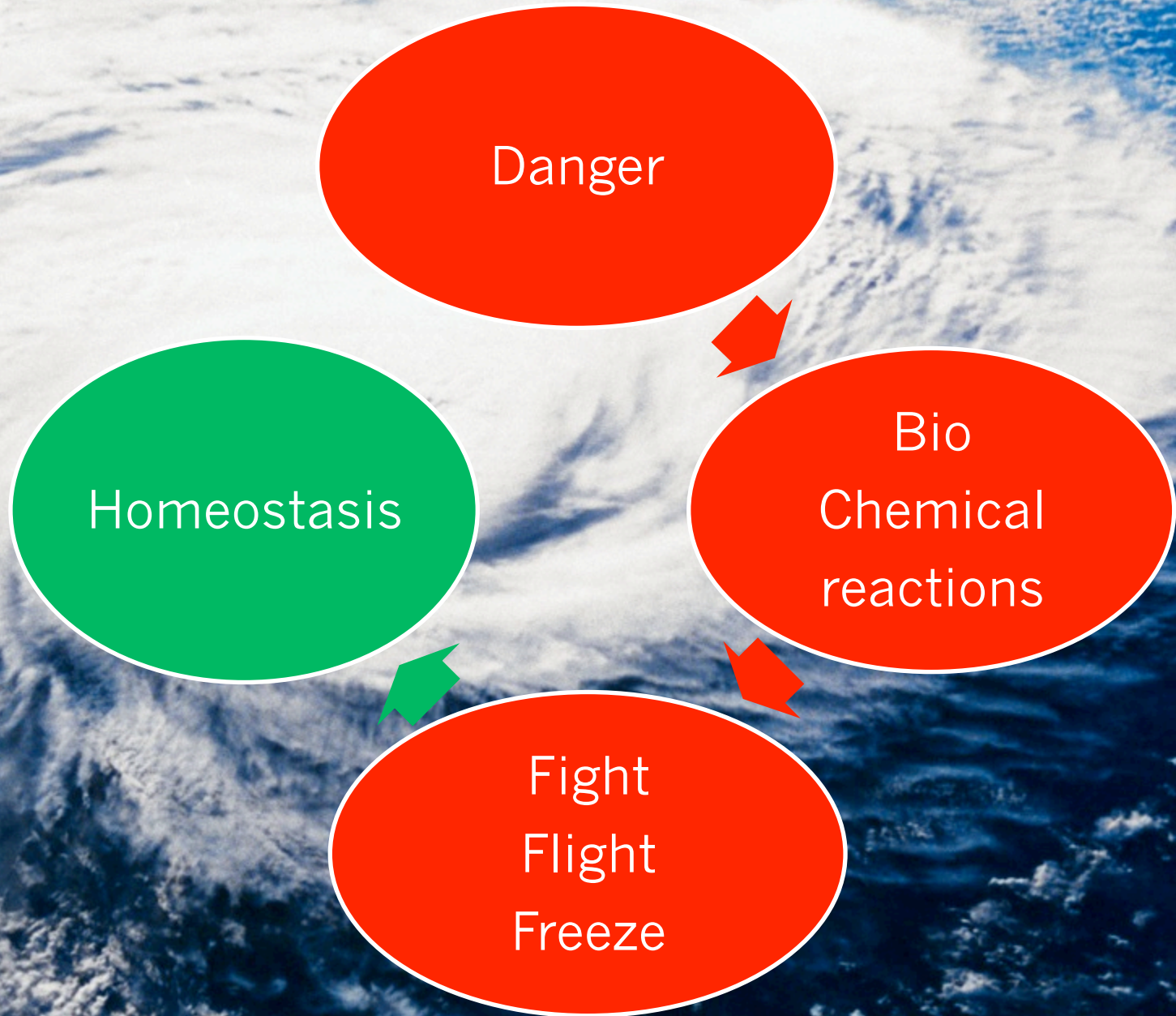


# Child Traumatic Stress

- May effect
  - perceptions of self
  - others
  - the world
  - the future
- May affect:
  - ability to trust others
  - sense of personal safety
  - effectiveness in navigating life change



# Stress Response System

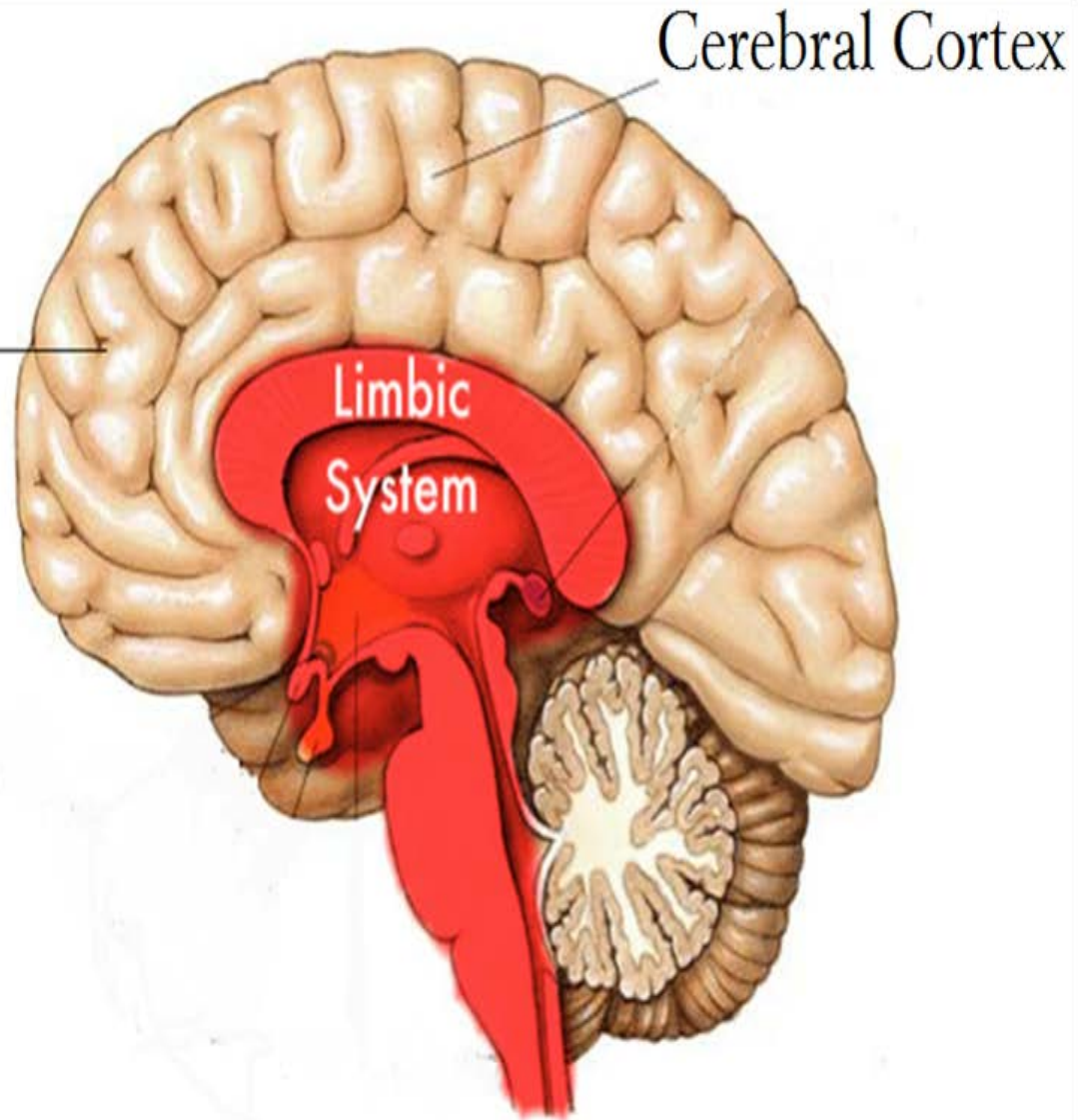




# Stress Response System

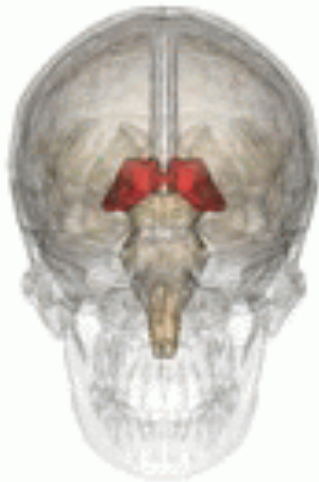


Frontal Lobe  
logical thought

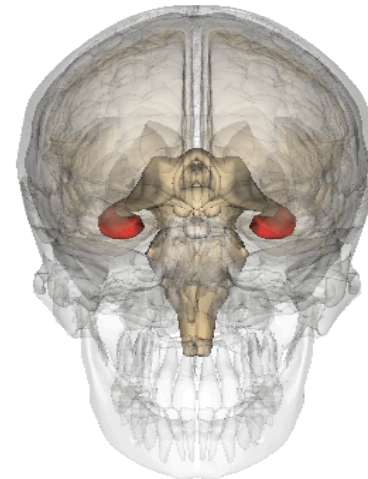


# Stress Response System *continued*

## Thalamus



## Hippocampus

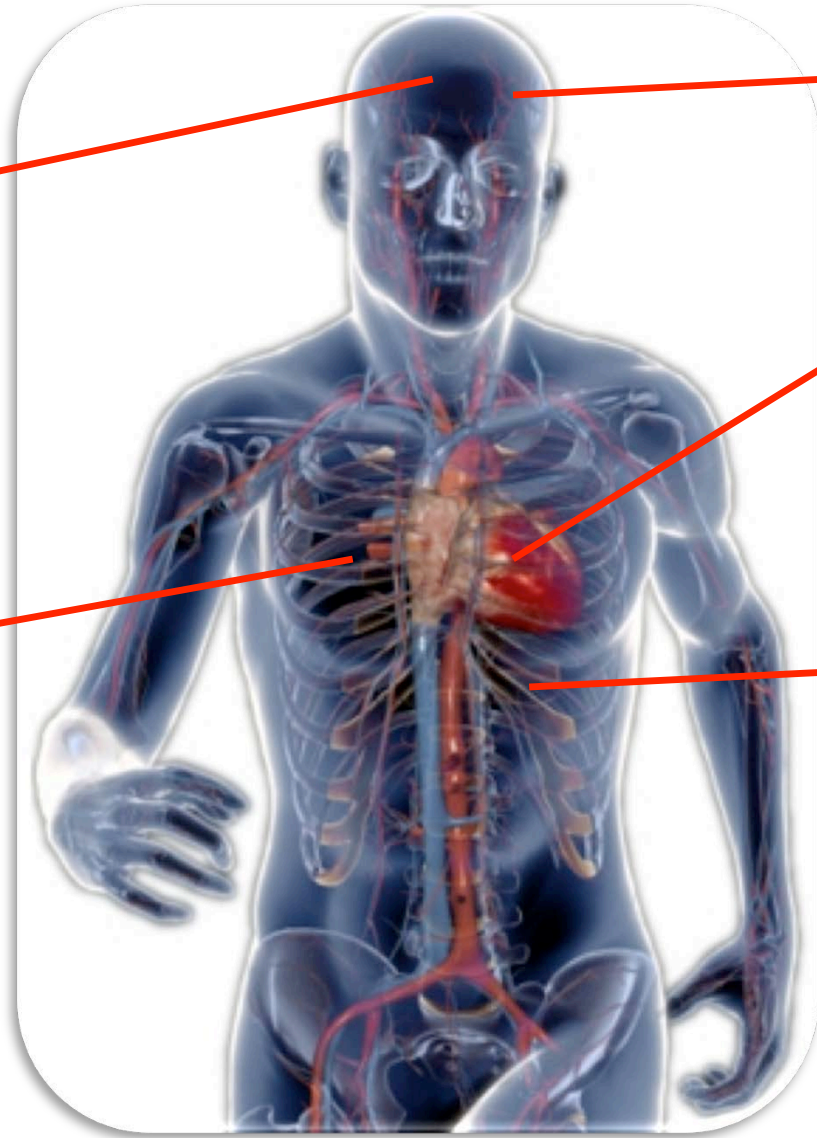


This image was made out of, or made from, content published in a [BodyParts3D/Anatomography](#) web site. The content of [Their website](#) is published under the Creative Commons Attribution 2.1 Japan license. The author and licensor of the contents is "BodyParts3D, © The Database Center for Life Science licensed under CC Attribution-Share Alike 2.1 Japan."(Google translate)



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# Fight, Flee, or Freeze



Hypothalamus

Hippocampus

Heart rate and blood pressure increase

Breathing rate increases

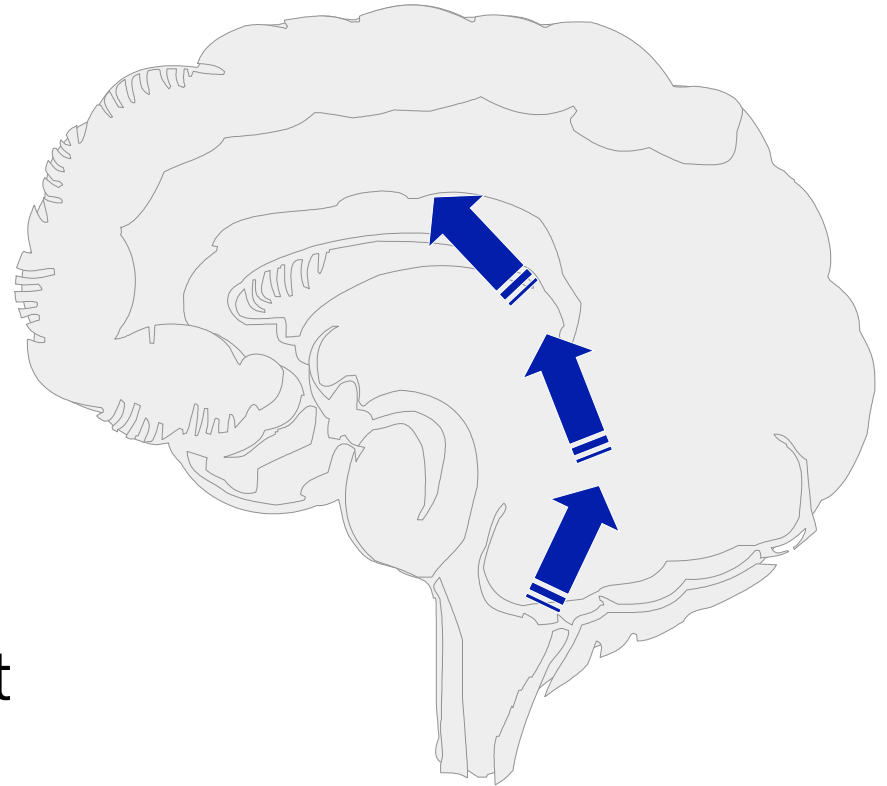
Release of adrenaline and cortisol





# Experience Develops the Brain

- Brain development happens from the bottom up:
  - From primitive (basic survival: brainstem)
  - To more complex (rational thought, planning, abstract thinking: prefrontal cortex)



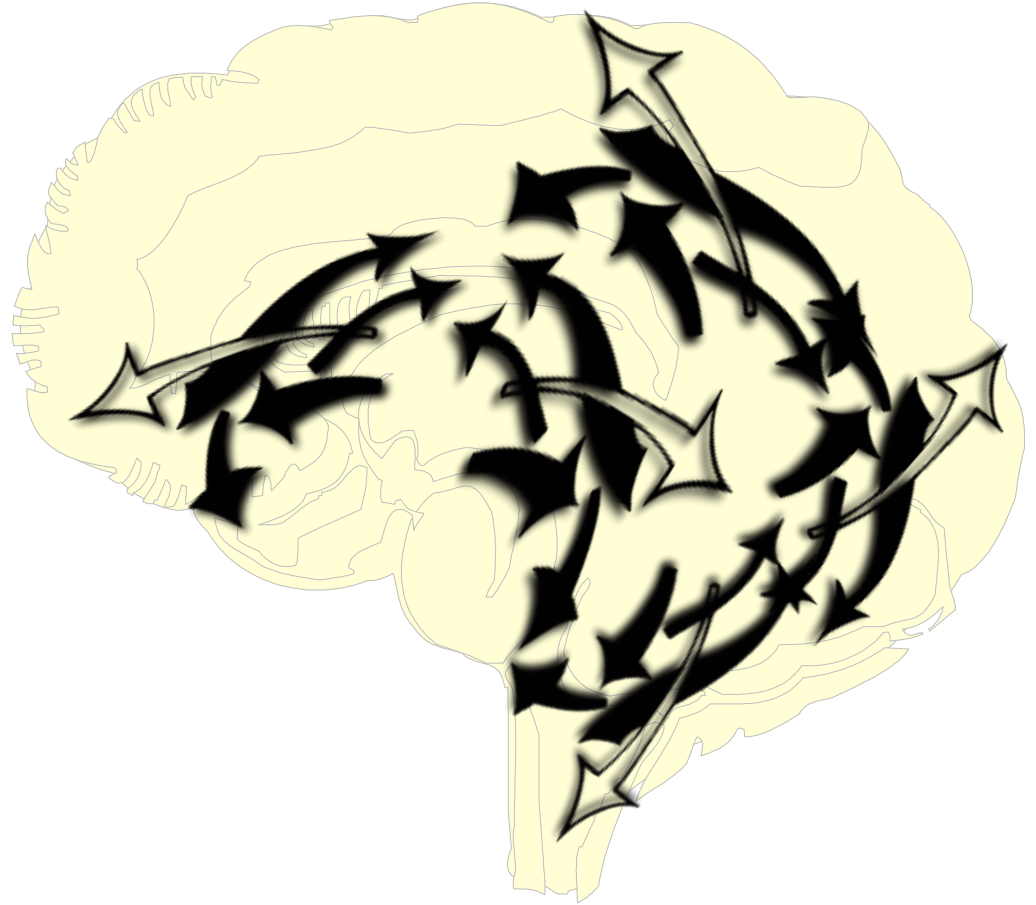
Source: Grillo, C. A., Lott, D. A., & Foster Care Subcommittee of the Child Welfare Committee, National Child Traumatic Stress Network. (2010). *Caring for children who have experienced trauma: A workshop for resource parents*. Los Angeles, CA and Durham, NC: National Center for Child Traumatic Stress. Retrieved from <http://nctsn.org/products/caring-for-children-who-have-experienced-trauma>



# Experience Develops the Brain

(continued)

- The brain develops by forming connections.
- Interactions with caregivers are critical to brain development.
- The more an experience is repeated, the stronger the connections become—either positive or negative.



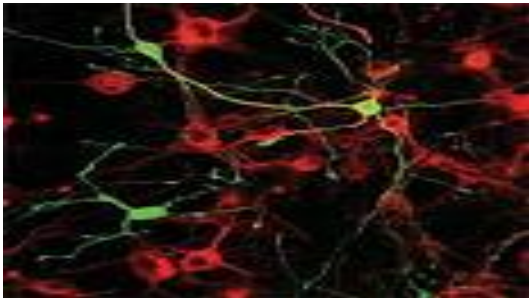
Source: NCTSN: *Caring for Children Who Have Experienced Trauma*. Retrieved from <http://nctsn.org/products/caring-for-children-who-have-experienced-trauma>



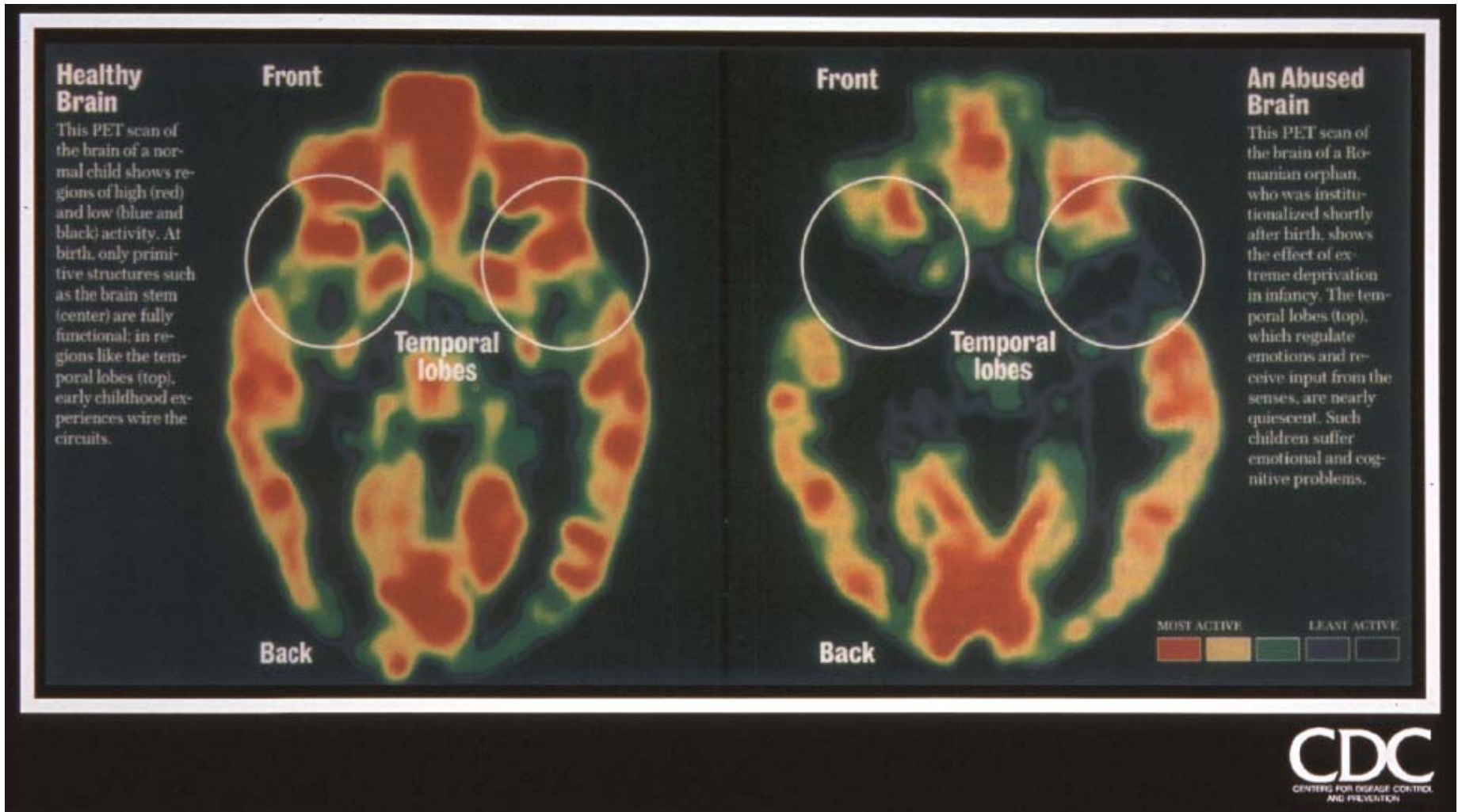
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# Neural Pathways

- Chemicals lay “tracks” in the brain
- The brain is “plastic” or moldable
- The brain continues to change in response to repeated stimulation
  - Positive experiences, praise, acknowledgements, validations, and positive feedback changes the brain chemistry
  - Can change the way information is processed



# Impact on Brain Development



# Trauma and Memory

## Implicit memory:

- Unconscious memories (e.g., recognizing mother's voice)

## Explicit memory:

- Conscious memories are created around age two
- Tied to language development

## Children with early trauma may retain implicit memories of abuse:

- Physical or emotional sensations can trigger traumatic memories
- Causes flashbacks, nightmares, or other distressing reactions



# Trauma and the Brain: Early Childhood

Can reduce size of the cortex.

- The cortex is responsible for complex functions
  - Memory, attention, perceptual awareness, thinking, language, and consciousness.

May affect “cross-talk” between the brain’s hemispheres.

- May affect IQ,
- The ability to regulate emotions,
- Can lead to increased fearfulness,
- Reduces sense of safety and protection.



# Trauma and the Brain: School-Age

## Undermines development of brain regions that help children:

- Manage fears, anxieties, and aggression
- Sustain attention for learning and problem solving
- Control impulses
- Manage physical responses to danger
- Enabling the child to consider and take protective actions

## Children may exhibit:

- Sleep disturbances
- New difficulties with learning
- Difficulties in controlling startle reactions
- Behavior that shifts between overly fearful and overly aggressive





# Trauma and the Brain: Adolescents

Can interfere with development of the prefrontal cortex, the region responsible for:

- Consideration of consequences for behavior
- Realistic appraisal of danger and safety
- Ability to govern behavior and meet longer-term goals

Increased risk for:

- Reckless and risk-taking behavior
- Underachievement and school failure
- Poor choices
- Aggressive or delinquent activity

Changes in dopamine levels lead to risk-taking behavior

- With support, adolescents can learn self-regulation and coping skills

The female brain reaches full maturity at age 21-22

The male brain is not fully mature until almost 30

<sup>1</sup> Spear, L. P. (2010). *The behavioral neuroscience of adolescence*. New York: W.W. Norton.

<sup>2</sup> Lenroot, R. K., Gogtay, N., Greenstein, D. K., Wells, E. M., Wallace, G. L., Clasen, L. S., ... Giedd, J. N. (2007). Sexual dimorphism in brain developmental trajectories and local gray matter density between childhood and adolescence. *Journal of Neuroscience*, 27(18), 4993-5001. Retrieved from: <http://www.abanet.org/cim/just/juvis/Adolescence.pdf>



# Trauma Triggers/Reminders

Things, events, situations, places, sensations, and even people that a youth consciously or unconsciously connects with a traumatic event



# Development's Missing Stairs



When children endure multiple traumatic events over long periods of time they are especially likely to have multiple gaps in their development.



# How do traumatic events impact the developmental tasks?

- Physically
- Socially
- Behaviorally and Emotionally
- Cognitively
- Identity Development and Future Orientation



# Trauma's Impact on Healthy Physical Development

- Body development can be more distressing.
- Body may serve as a trauma reminder.
- Cutting, piercing, tattooing, and maladaptive eating may be attempts to cope.
- Alcohol and substance abuse can also be ways of trying to control changing emotions and physical sensations.
- Alterations in the immune system can occur.



# Trauma's Impact on Behavioral Development

Youth who have experienced significant trauma may have difficulty

- Making realistic appraisals of danger and safety
- Governing behavior to meet longer-term goals

As a result, may engage in:

- Reckless and risk-taking behavior or
- Become avoidant of any risk



# Trauma's Impact on Social Development

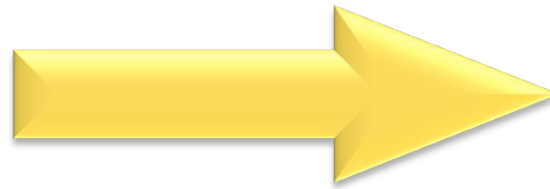
- Isolation and withdrawal
- Persistent distrust and suspiciousness of others
- Continued expectation of maltreatment
- Difficulty in perspective-taking and enlisting others as allies
- Difficulty with establishing appropriate social boundaries





# Trauma's Impact on Emotional Development

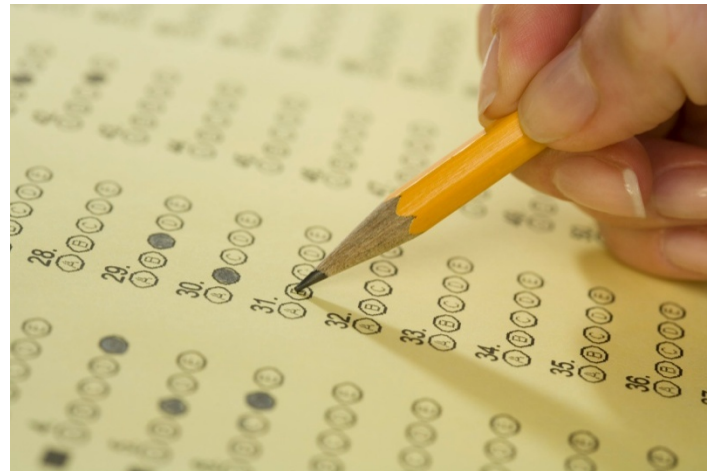
- Difficulty with self-regulation
- Difficulty describing feelings/internal states
- Difficulty communicating wishes and desires





# Trauma's Impact on Cognitive Development

- Difficulty with regulating attention and executive functioning
- Memory impairments
- Trauma reactions can interfere with test taking and ability to call up learned information.
- Traumatized youth have IQs 8 or more points lower than non-traumatized kids.



# Trauma's Impact on Planning for the Future

- Sense of a foreshortened future or cannot see any kind of future for themselves
- Some feel ill-equipped to handle the future because of the life skills they've missed along the way



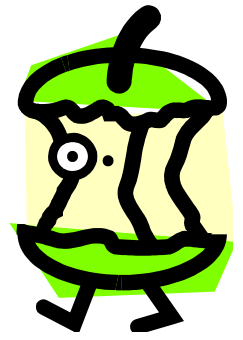
Trauma Informed Schools  
can help bridge the  
achievement gap



Kids who are experiencing the toxic stress of severe and chronic trauma just can't learn

**It's physiologically impossible**





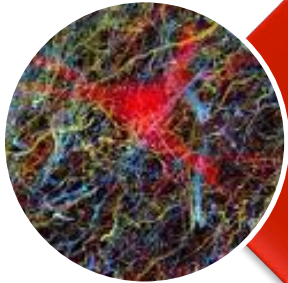
Students experiencing  
emotional trauma CAN  
master Common Core  
Standards given a safe,  
trauma informed  
environment!



# What is Trauma Informed?



An appreciation for the high prevalence of traumatic experiences in students' lives



A thorough understanding of the profound neurological, biological, psychological and social effects of trauma on the individual



Using teaching and classroom strategies that address these effects



# Therapeutic Web



“The single most critical factor in how children respond to a traumatic event is the presence of at least ONE loving and supportive adult in their life”.

*Bruce Perry*



# What does a Trauma-Sensitive School Look Like?

- De-activates students stress response system
  - Transition students from the limbic system to the neo-cortex
- Creates a repertoire of positive experiences
  - It takes 10 positives experiences to negate 1 negative
- Helps students identify feelings
- Teaches positive coping skills
- Builds positive relationships with students





# What a Trauma-Sensitive School Does *Not* Look Like?

1. Not recognizing a traumatized student
2. Judging the severity of the student's trauma
3. Addressing the behaviors only
4. Trying to teach when the student's dysregulated
5. Educators get triggered themselves.
6. Excluding the parent
7. Feeling "sorry" for the student
8. Punishment vs. discipline



# What a Trauma-Sensitive School Does **Not** Look Like?

*continued*

- Zero-tolerance policies
- The overuse of out-of-school
- Only 5% of out-of-school suspensions were for weapons or drugs
- The other 95% were categorized as
  - "disruptive behavior"
  - "defiant"
  - "other:" violation of dress code, and farting



# Punitive Discipline does **NOT** Teach

- Suspension and expulsion are significant factors in feeding the “School-to-Prison Pipeline”
- Doubles the likelihood of a child repeating a grade.
- One suspension triples the likelihood of a child becoming involved with the juvenile justice system



# **Complex Trauma, video sponsored by Spokane County Community Network 2009**

<http://youtu.be/A1vbSSQJOHw>



For me – this is  
**“life  
changing”**  
info!  
Anonymous

I can't wait  
to see  
where I can  
take next  
years class!  
Anonymous

All teachers  
and  
administrator  
s should have  
this training  
Anonymous

Extremely  
beneficial  
for our staff  
and  
students!  
Anonymous



# Questions? Comments?

