

What Educators Need to Know about Trauma and Toxic Stress

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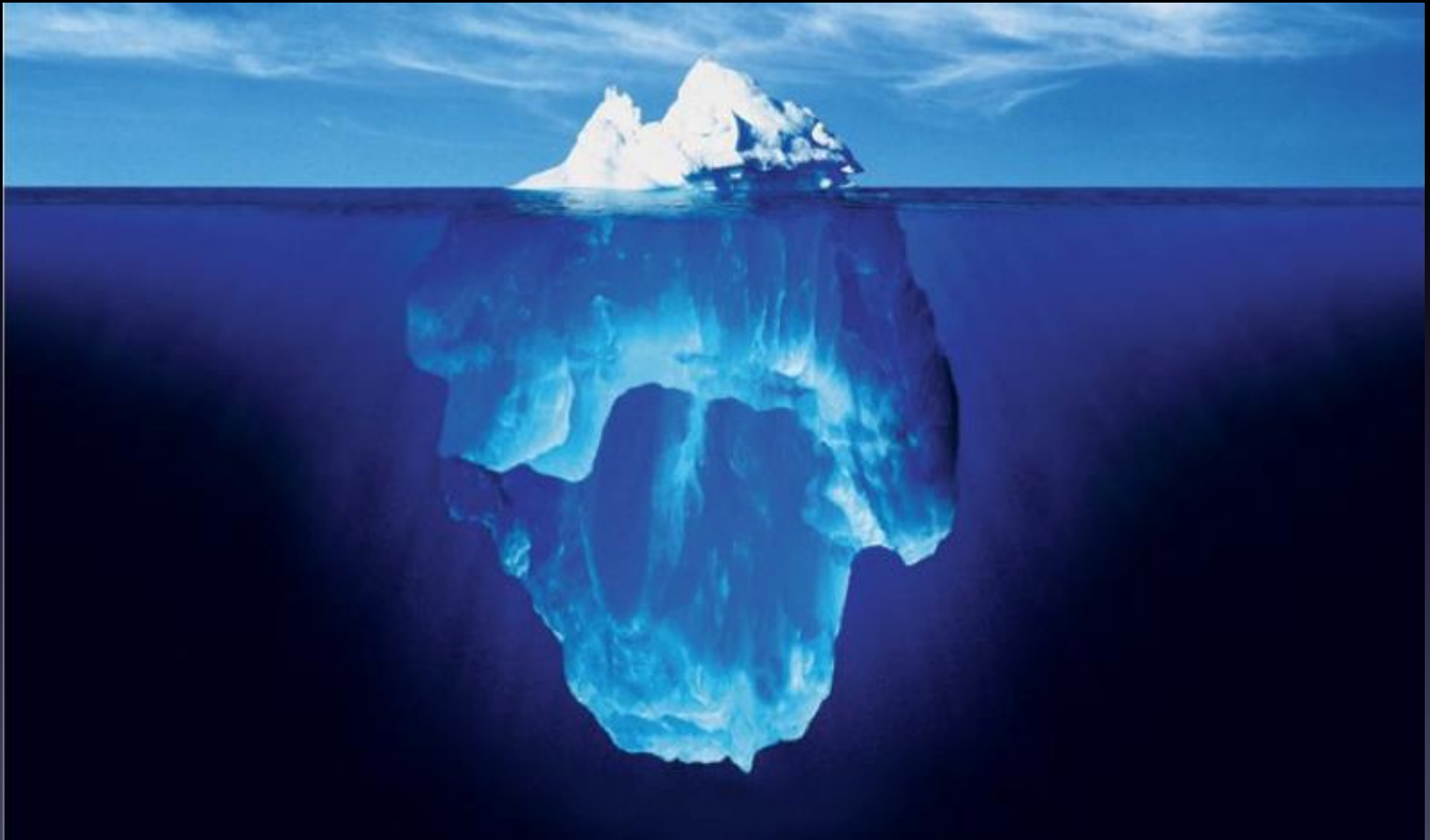
Minnesota Center for Chemical and Mental Health

10/13/2017

Overview

- The brain: trauma and toxic stress
- Red flags of toxic stress
- Key trauma-informed responses
- Q & A

A Metaphor



Toxic Stress

- Strong, frequent, or prolonged activation of the body's stress management system.
- Caused by stressful events that are chronic, uncontrollable, and/or experienced without the child having access to support from adults

(Rubin & Leonard, 2014)

Sources of Trauma and Toxic Stress

Neglect	Community violence
Physical abuse	Bullying or school violence
Emotional/verbal abuse	Natural disaster
Sexual abuse	Medical trauma/serious illness
Poverty	War or terrorism
Parental conflict, divorce, or domestic violence	Loss, bereavement or parental illness
Separation from a caregiver	Witnessing a frightening event
Growing up with a parent with addiction or mental illness	Refugee trauma/forced migration

(National Child Traumatic Stress Network, 2005)

Physiological Impact of Trauma and Toxic Stress

Source: <http://serendip.brynmawr.edu/exchange/kgould/thrill-disaster-thrill-fight-or-flight>



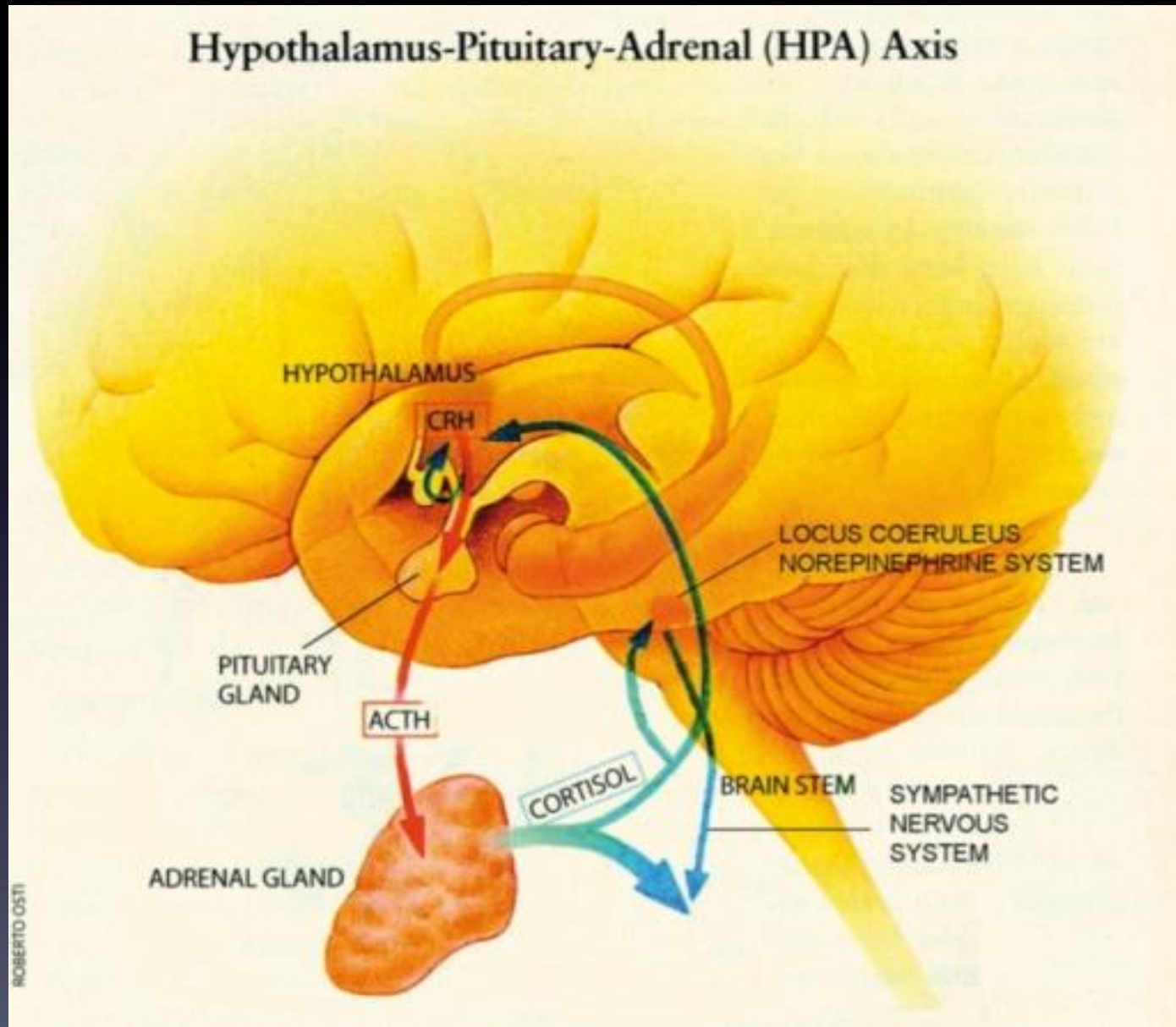
How Does Toxic Stress Impact Brain Development?

- Traumatic stress in children creates a brain wired for fear
 - Overactive limbic system
 - Impaired frontal cortex



Source: <http://brake-o-rama.com/wp-content/uploads/blog-driving-stick.05.jpg>

Stress Response System



Fight or Flight...

Release of stress hormones leads to:

Tunnel vision	Heart pounding
Blood rushes to extremities	Inability to think/concentrate
Increased respiration	Trembling or shakiness
Increased perspiration	Dry mouth
Muscle tension	Lightheadedness
Loss of bladder/bowel control	Increased blood pressure

(Hodas, 2006)

...Or Freeze

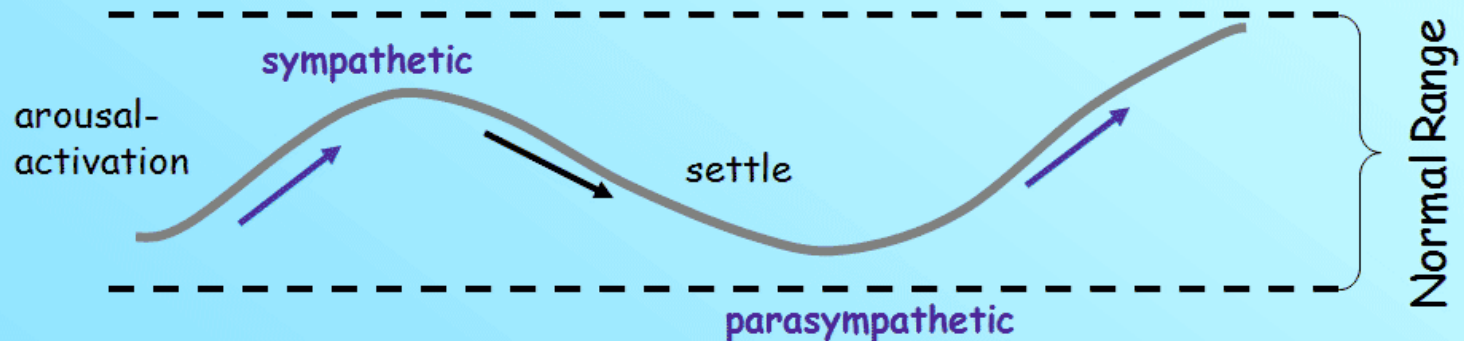
- Surrender response
- Common to all young mammals
- More typical of very young children, for whom flight or flight is likely to be ineffective
- Results in dissociation, or “going away”



(Hodas, 2006)

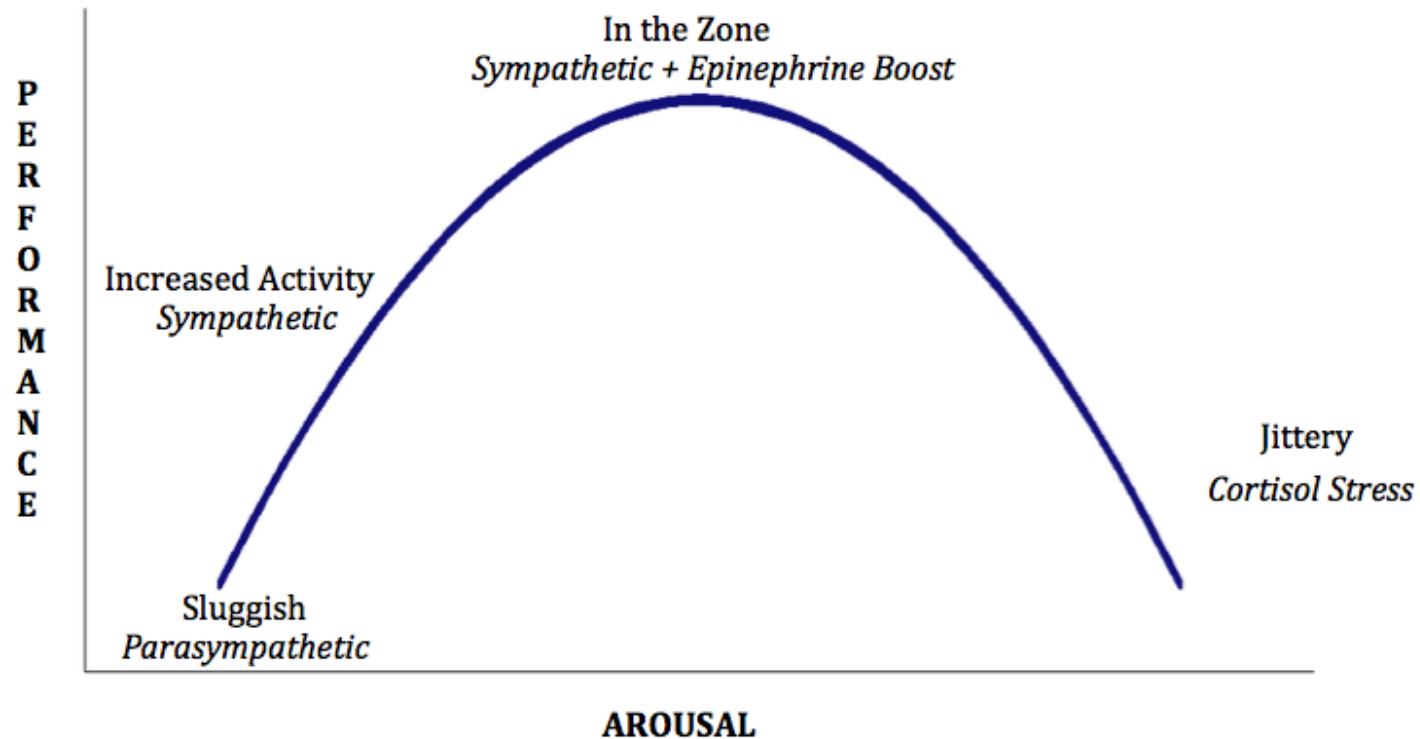
A Normal Stress Response

A Healthy Nervous System



Source: <http://www.appliedbiofeedbacksolutions.com/ans-2.html>

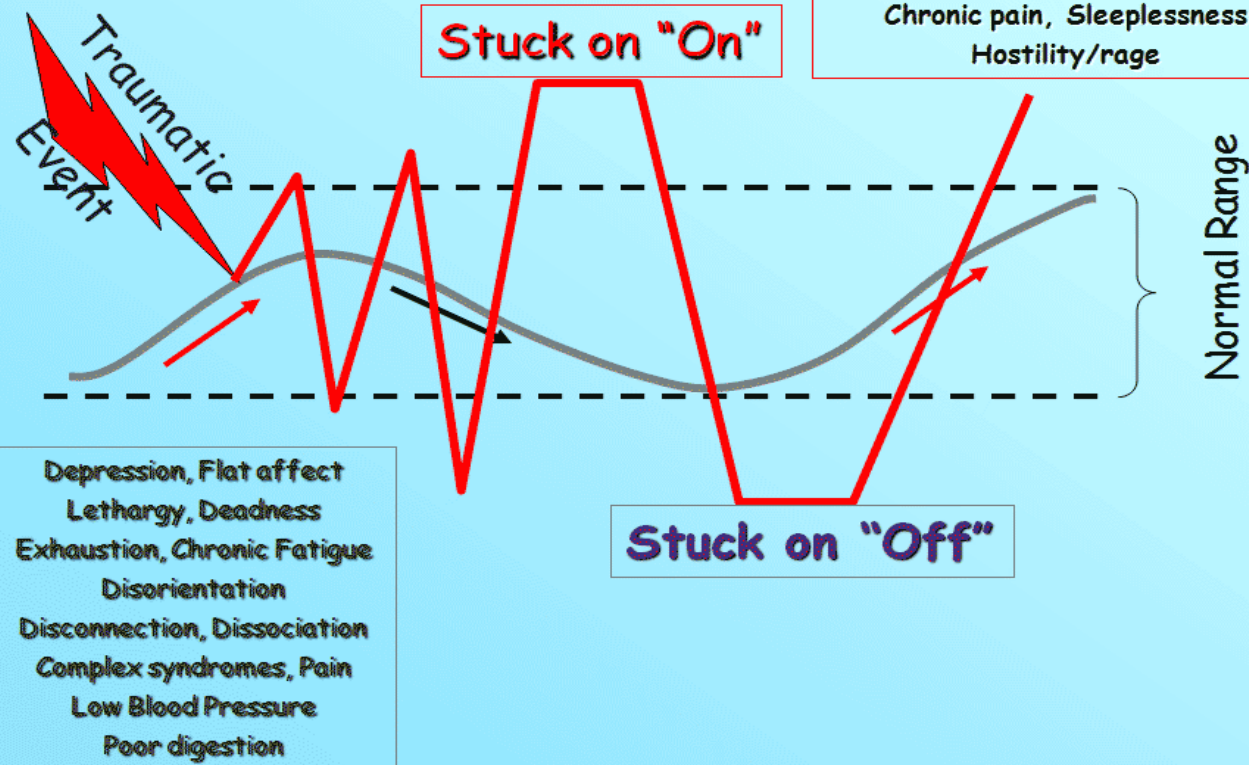
Optimal Stress



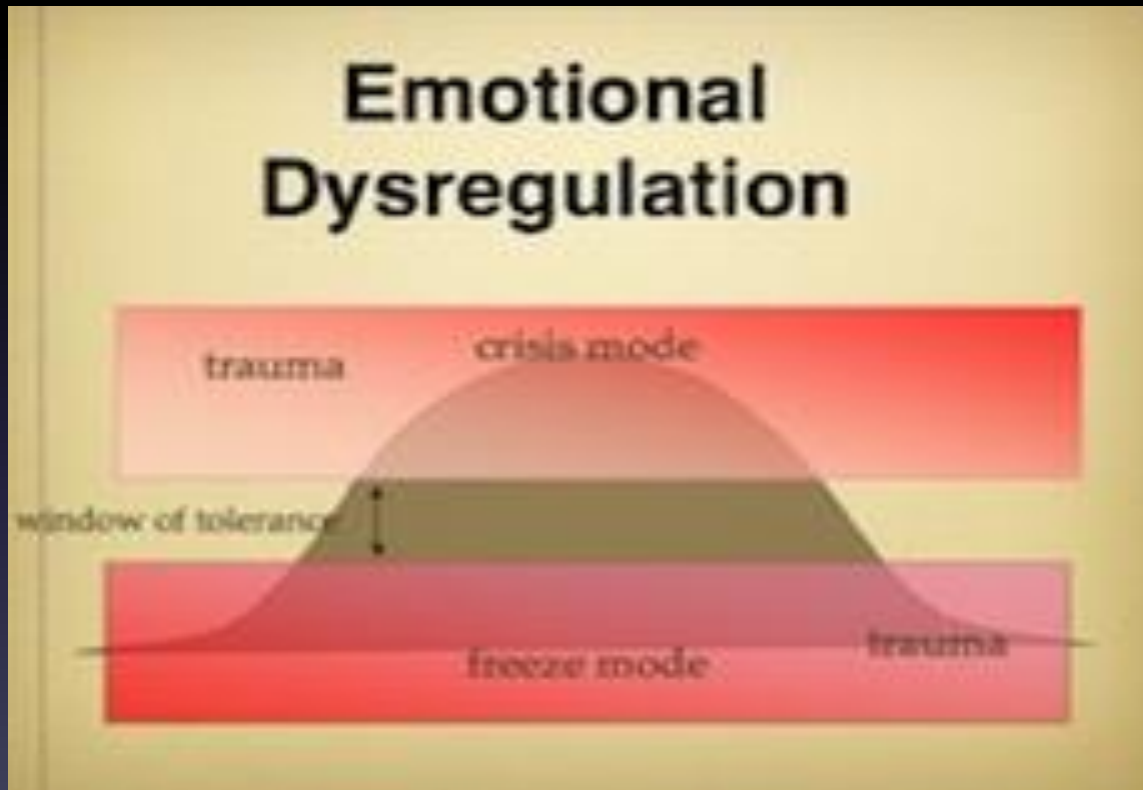
Source: <http://www.fullfactionpotential.com/blog/2015/10/27/the-u-shape-curve-of-adrenaline-and-performance>

Hyperaroused Stress Response

Symptoms of Un-Discharged Traumatic Stress



A Narrow Window of Tolerance



Source: http://www.myshrink.com/counseling-theory.php?t_id=76

Toxic Stress and Memory



Hippocampus:

- Involved in memory
- Easily damaged
- Stress hormones especially harmful

Traumatic memories:

- Strongly encoded, easily triggered
- PTSD: intrusive memories, flashbacks, kaleidoscopic memory

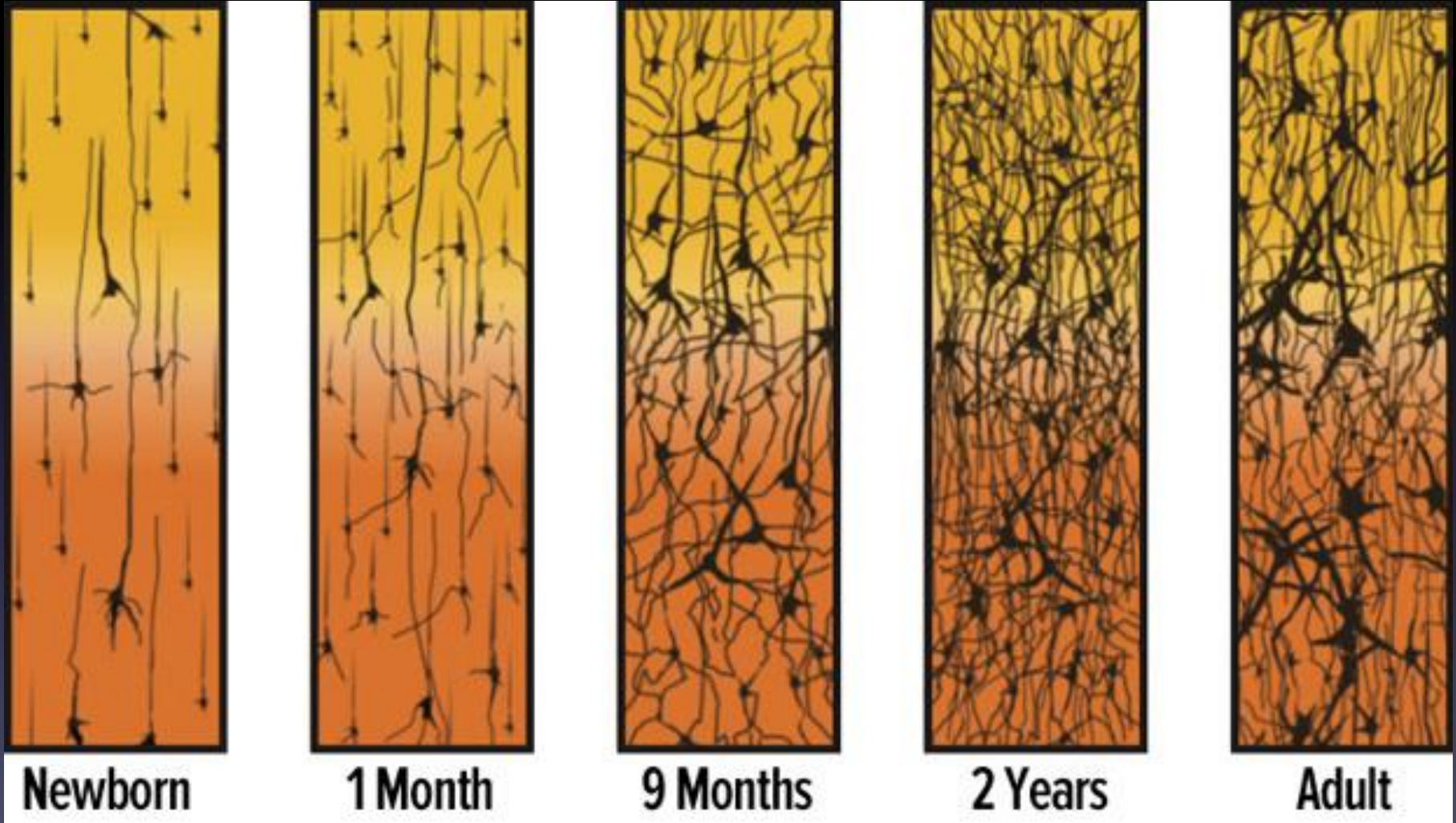
(Hodas, 2006)

Brain Development

- Young brains are highly plastic.
- The neurons that fire together, wire together.
- The structure and function of the brain are use-dependent and highly sensitive to the quality of the environment.

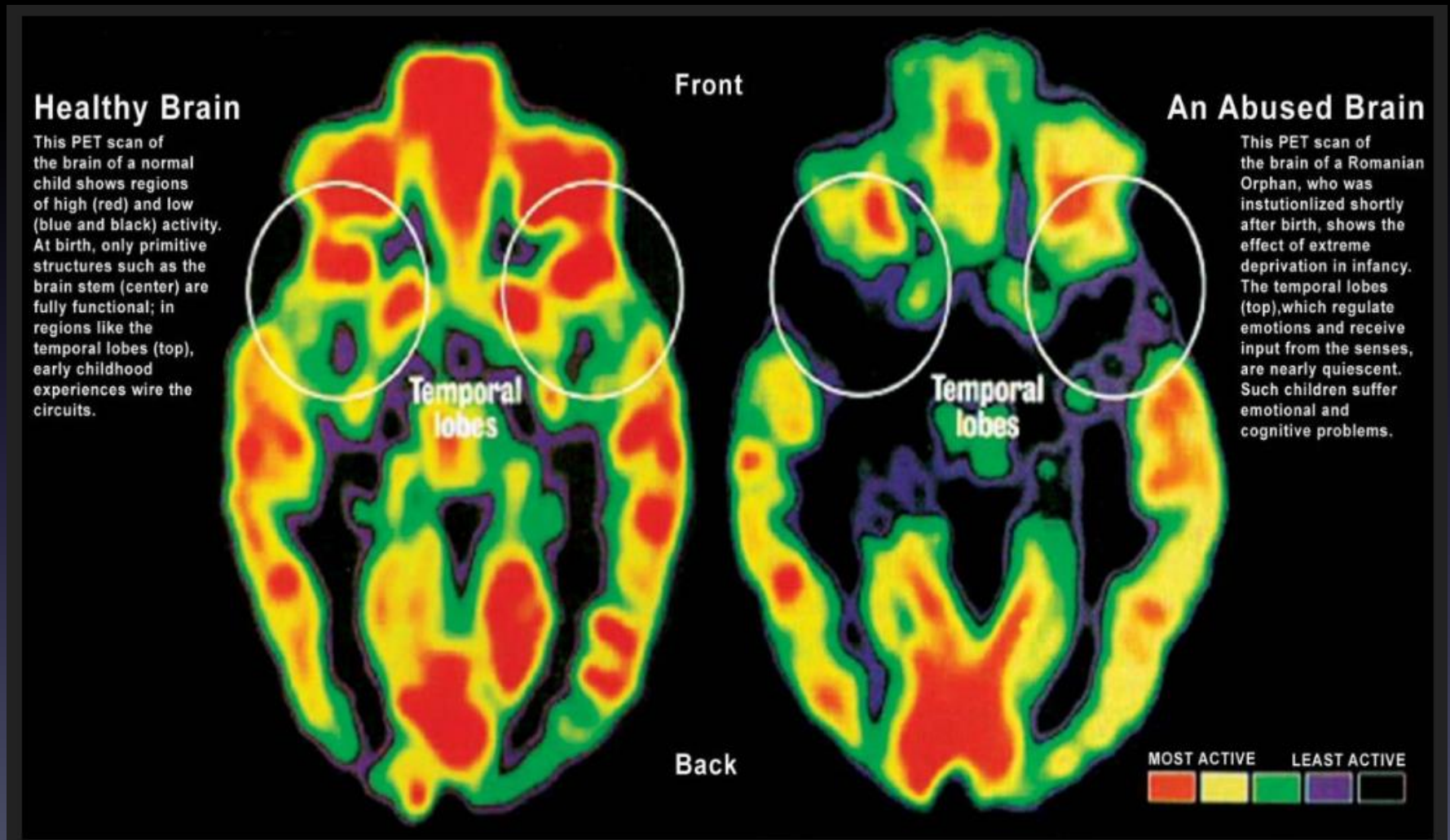
(Perry et. al, 1995)

Young Brains Are Highly Plastic

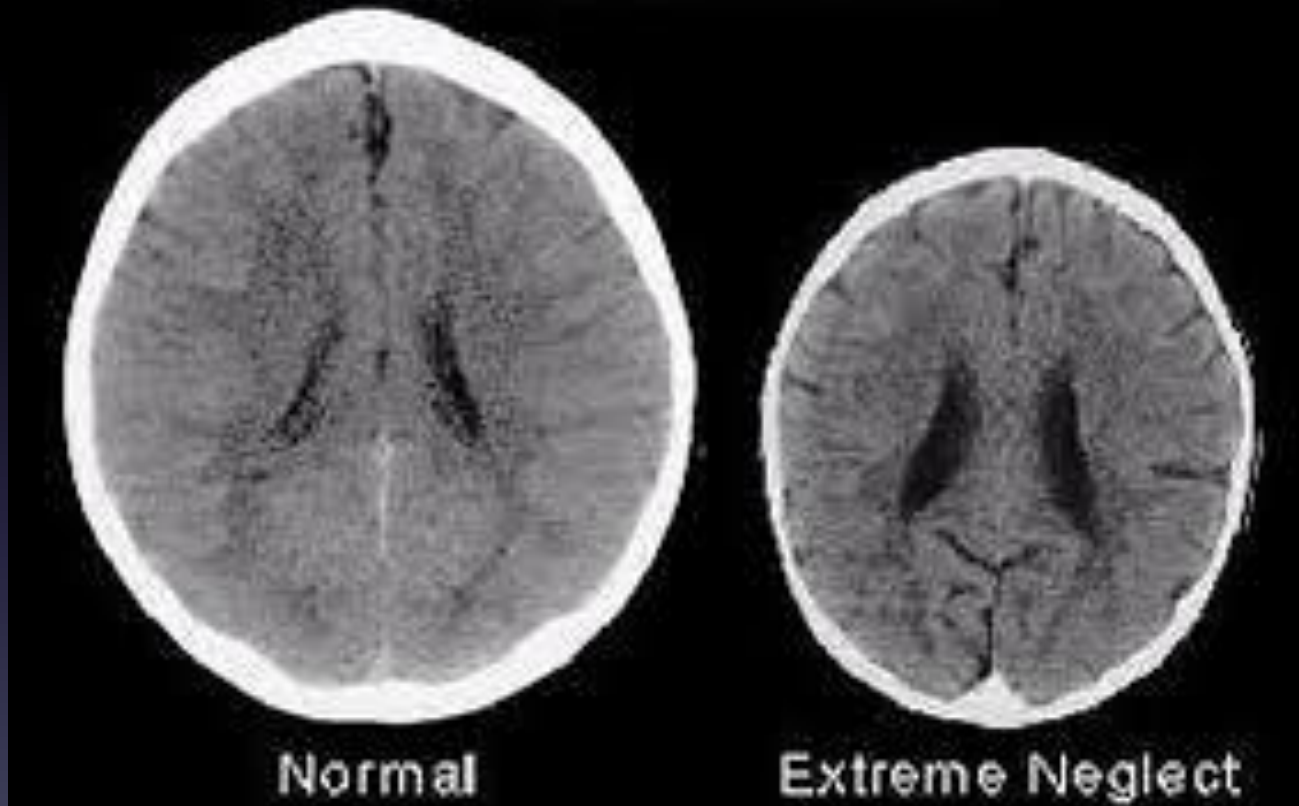


Source: <http://www.urbanchildinstitute.org/why-0-3/baby-and-brain>

Brain Develops Sequentially



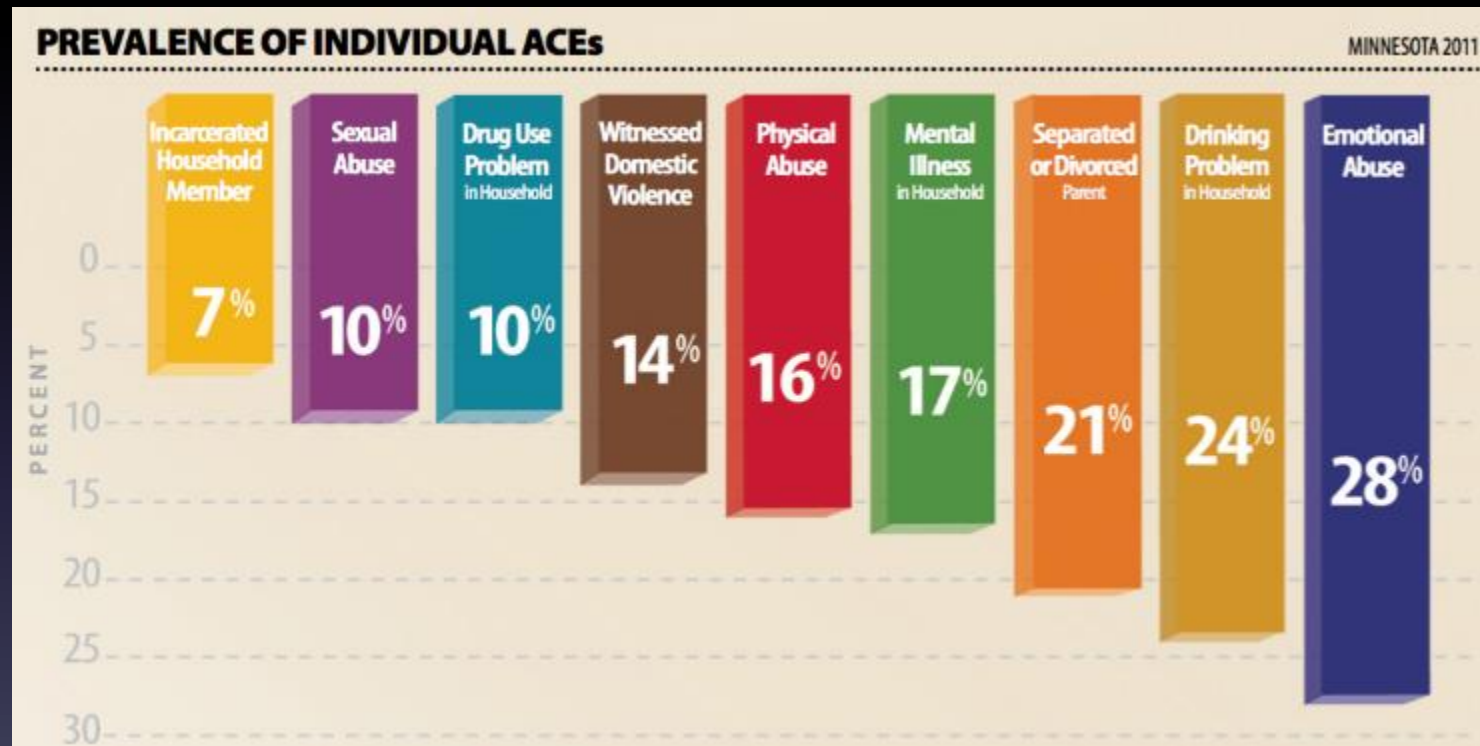
Brain Is Use-Dependent



Source: <http://www.slideshare.net/ChildrensTrustofSC/childhood-traumas-impact-on-the-developing-brain>

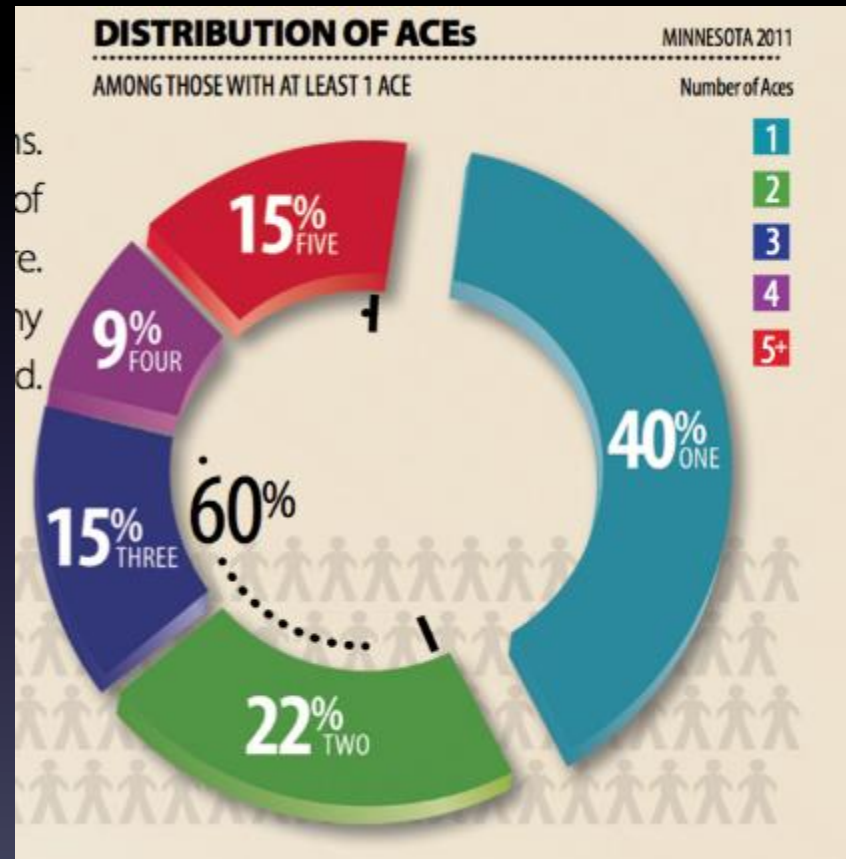
Left: Normal 3-year old brain; Right: Romanian orphan

Adverse Childhood Experiences in Minnesota: Prevalence



Source: Minnesota Department of Health (2011)

ACEs in Minnesota: Distribution



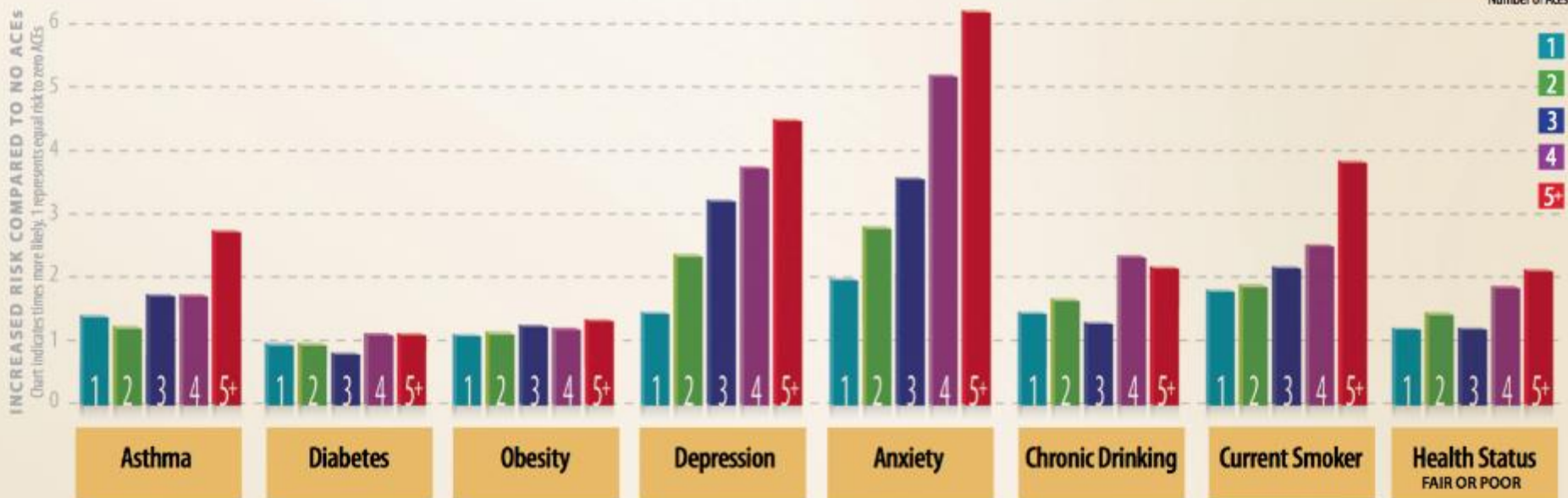
Source: Minnesota Department of Health (2011)

ACEs in Minnesota: Impact

INCREASED RISK OF CONDITION/BEHAVIOR WHEN ACE IS PRESENT

MINNESOTA 2011

Number of Aces



Source: Minnesota Department of Health (2011)

ACE Study Conclusions

- “Extreme, traumatic or repetitive childhood stressors are common, tend to be kept secret, and go unrecognized by the world.”
- “The fight-or-flight response among children exposed to these types of stressors is both uncontrollable and invisible.”

(Anda et. al, 2006)

What Does Toxic Stress Look Like in the Classroom?

A traumatized child trying to learn is like someone trying to play chess in a hurricane.

(Wolpow, Johnson, Hertel, and Kincaid, 2009)



Red Flags of Toxic Stress

- **Two typical response sets:**
 - Externalization (fight or flight)
 - Internalization (freeze)
- **Somatic symptoms:**
 - Headaches
 - Stomachaches
 - Fatigue and sleeplessness
 - Overall pain and malaise



(Massachusetts Advocates for Children, 2005)

Difficulties With...



Higher order thinking skills: abstract reasoning, problem solving, application of new learning





Learning and Memory: Encoding and retrieval of information, working memory



Executive Functioning: Planning, prioritization, sequencing, organization, attention, task initiation

Difficulties With...

 **Emotion Regulation:** Defiance, reactivity, aggression, impulsivity, withdrawal or passivity

 **Relationships:** May appear to lack empathy, struggle with social cues, make negative attributions, may be “adult wary,” lonely

Symptom	Classroom Example (adapted from Bell et al., 2013)
Somatization	Repeatedly complaining about headaches, stomachaches, pain
Hypervigilance	Constantly looking around the room, checking behind oneself, may appear jumpy or startle easily
Sleep disorders	Coming late to class, falling asleep in class, irritability, appearing exhausted, head on desk throughout the day, complaining of nightmares
Regression	Thumb sucking, baby voice, separation anxiety, wetting or soiling
Reenactment	Aggression in play, themes of trauma in play, age-inappropriate sexual play
Social isolation	Sits alone, does not talk to others, avoids interaction, approach/avoidance
Emotional reactivity	Mood swings, easily angered, irrational reactions, yelling, becoming upset quickly, difficulty calming, tearfulness
Fear	Phobias, appearing uncertain, strong reactions to certain stimuli, deteriorating behavior with changes in schedule or substitute teachers
High stress	Easily overwhelmed by new projects, late work, lack of effort, transitions are difficult, frequently uncertain or nervous
Inability to focus	Fidgeting, glancing around room, not completing work
Dissociation	Appears to blank out, poor memory, appears distant/unreachable
Flashbacks (may not be visible)	May appear as poor memory, high anxiety, difficulty concentrating, blanking out, difficulty following directions
Substance use	Drugs of abuse, alcohol, tobacco, difficulty concentrating, frequent absences

FRAGILE



FRAGILE



FRAGILE



FRAGILE



**PLEASE
HANDLE WITH CARE**

FRAGILE

**** THANK YOU ****



FRAGILE

FRAGILE!



CAUTION!

ANIMAL

WITH CARE



**HANDLE
WITH CARE**

“Sometimes I think the children who are the hardest to love, need it the most.”

(Lucas, 2007)

3 Pillars of Trauma-Informed Teaching

1. Safety: Adults provide consistency, reliability, predictability, honesty, transparency.
2. Connections: Adults build caring relationships based on trust, compassion, and empathy.
3. Help managing emotions: Adults co-regulate rather than becoming coercive.

(Bath, 2008)

Keys to a Trauma-Informed Response

- Self-care is an ethical obligation
- Disruptive behavior is not willful
- Avoid power struggles
- Punishment is often ineffective
- Prevent dysregulation
- Positive relationships with caring adults are crucial

Self Care is an Ethical Obligation



How Does Secondary Toxic Stress Affect School Staff?

- “It is not uncommon for school professionals, who have a classroom with one or more students struggling with the effects of trauma, to experience symptoms very much like those their students are exhibiting.”

(Wolpow et al., 2009)

Impact of Secondary Stress

Domain	Impact (adapted from Wolpow et al., 2009)
Physical	Loss of sleep, change in appetite, impaired immune system, somatic symptoms such as low energy, backache, headache, fatigue, upset stomach
Emotional	Anxiety, guilt, irritability, sadness, numbness, emotional shutdown, depletion, hopelessness, emotional rollercoaster, apathy
Behavioral	Changes in routine, absent-mindedness, nightmares, elevated startle response, impatience, moodiness, self-destructive coping (food, money, alcohol/drugs, risk-taking), tardiness/absenteeism
Cognitive	Diminished concentration, loss of focus or perspective, confusion, perfectionism, difficulty making decisions, self-doubt, hypervigilance, triggered connections to own trauma, decreased perceived competence
Relational	Mistrust, withdrawal, intolerance, negative parenting behaviors (shame, over-protectiveness, lack of patience), conflicts with others, loneliness, difficulty with intimacy, minimizing or blaming
Worldview/ Spiritual	Workplace frustration, sense of unfairness, anger at society, loss of purpose, feelings of bitterness, feeling unsupported, loss of creativity, hopelessness

Professional Quality of Life Scale

- Professional Quality of Life scale (ProQOL)
- Helps us understand impact (positive and negative) of working in a helping profession, given our own personal experience
- Public domain

Disruptive Behavior is Not Willful

Children are doing the best they can

- **Not:** what's wrong with this child,
what happened to this child?
- **Not:** this child is giving me a hard time
this child is having a hard time
- **Not:** this child just wants attention
this child needs my care and patience

Behavior is Communication

There is likely
something else
going on



We must:

- Find the cause of the behavior
- Discover the barriers and remove them
- Think about how we frame behavior

Avoid Power Struggles

- Kids are hurting—that's why they lash out.
- Adults can inadvertently mirror children's angry and impulsive behavior through threats and commands



Connection, Not Coercion

- Pause
- Give choices
- Offer a way out
- Agree to work together
- Take a break

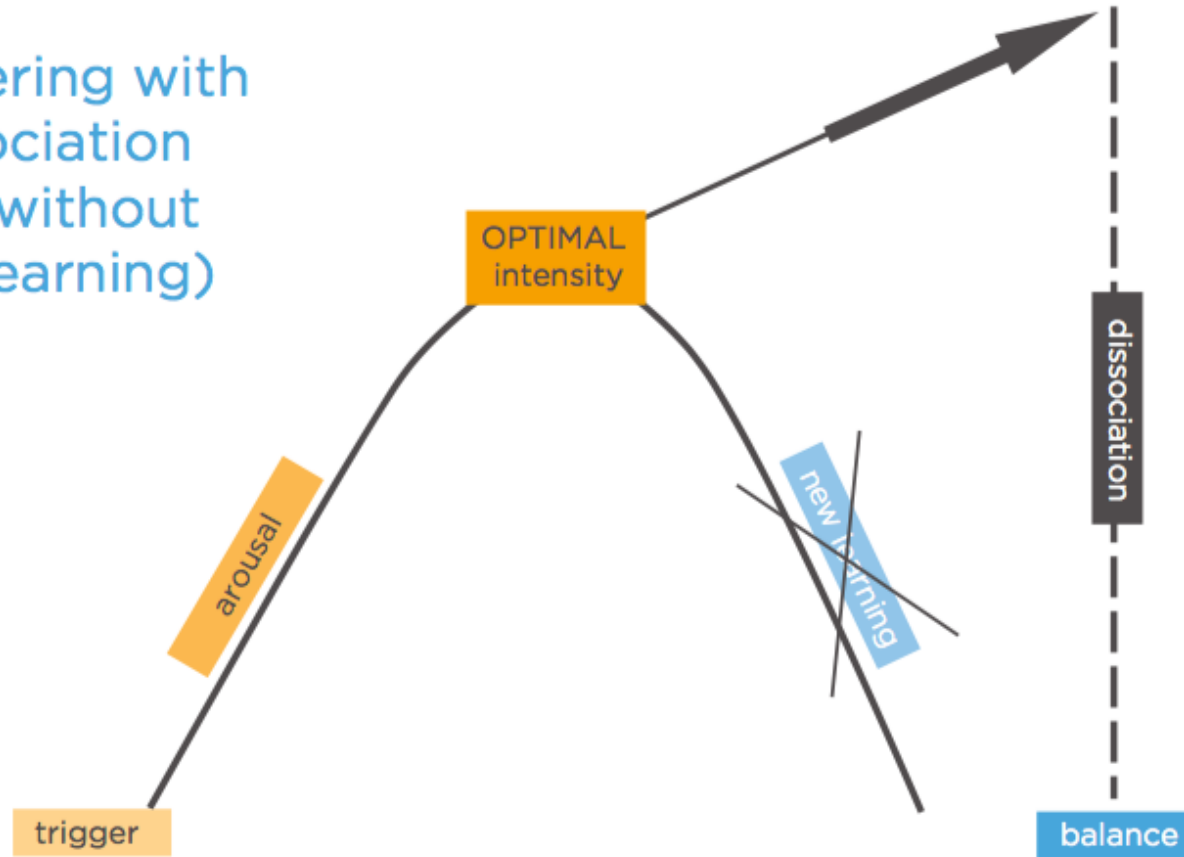
Punishment is Often Ineffective

- Children need to learn how to self-regulate, and for that they need to co-regulate first
- Self-regulation is undermined by the stress response
- Kids are learning to behave, just as they are learning reading or math
- Punishment short-circuits this learning



Punishment Doesn't Teach

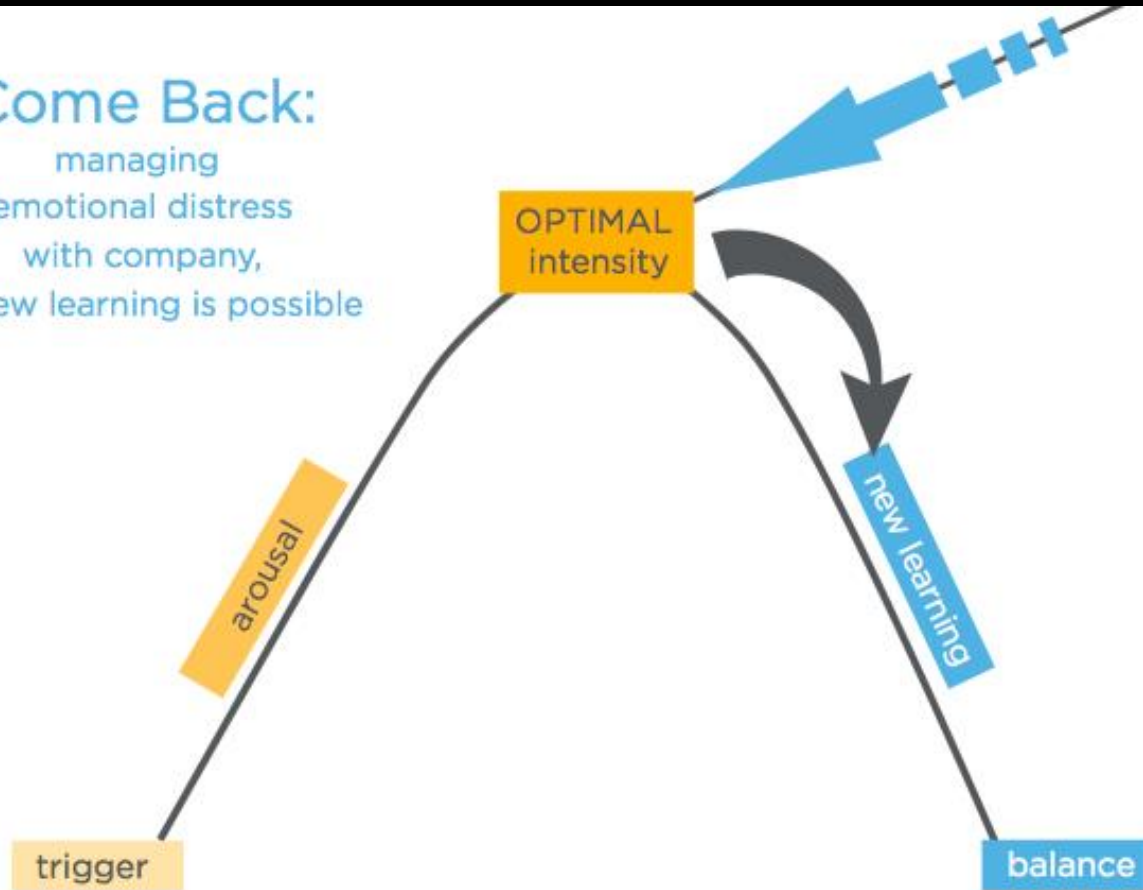
Recovering with
dissociation
(but without
new learning)



(Gearrity, 2015)

Goal: Co-Regulation

Come Back:
managing
emotional distress
with company,
so new learning is possible



(Gearrity, 2015)

Framing Matters

Interpretation

- **Old:** lack of motivation, purposeful defiance
- **New:** involuntary trauma response

Goal

- **Old:** compliance
- **New:** learning self regulation, learning trust

Mechanism

- **Old:** punishment & reward
- **New:** Addressing barriers, co-regulation, and relationship

Punishment Can Make it Worse

“The great danger is adults stigmatizing children, who are often seen as bad kids who need to be punished. Punitive and shaming interventions (unlike respectful adult redirection and maintenance of accountability), typically exacerbate behaviors and alienate children from helpers and from help.”

(Hodas, 2006)

Punishment & Consequences:

- Reinforce negative self-concept
- Deepen shame and humiliation
- Escalate the stress response
- Damage the relationship

(Hodas, 2006; Gearrity, 2015)



The Importance of Relationships



Relationship-Rich Environment

Relationships are extremely important for traumatized children:

- Need **safety**: consistency, availability, honesty, reliability
- Need **connections**: relationships with caring adults who can help them see that not all adults are dangerous or unpredictable
- Need adults who can **co-regulate** (quiet companionship, attunement, empathy, active listening, labeling emotions)
- Need **patience and compassion**

(Bath, 2008; Massachusetts Advocates for Children, 2005)

Positive Relationships

- Allow for learning and for healing
- Need to hear expressions of caring and support
 - Felt safety
 - Praise in public, criticize in private
 - Build them up
- We need a strong back,
soft front



Prevent Dysregulation

- Keep **consistent schedules** and **predictable patterns** for the day
- **Preview** changes and events
- **Reduce** number of transitions
- **Create** calm, predictable transitions
- Maintain **flexibility** around homework and other stressors

Long Run: Set Up for Success

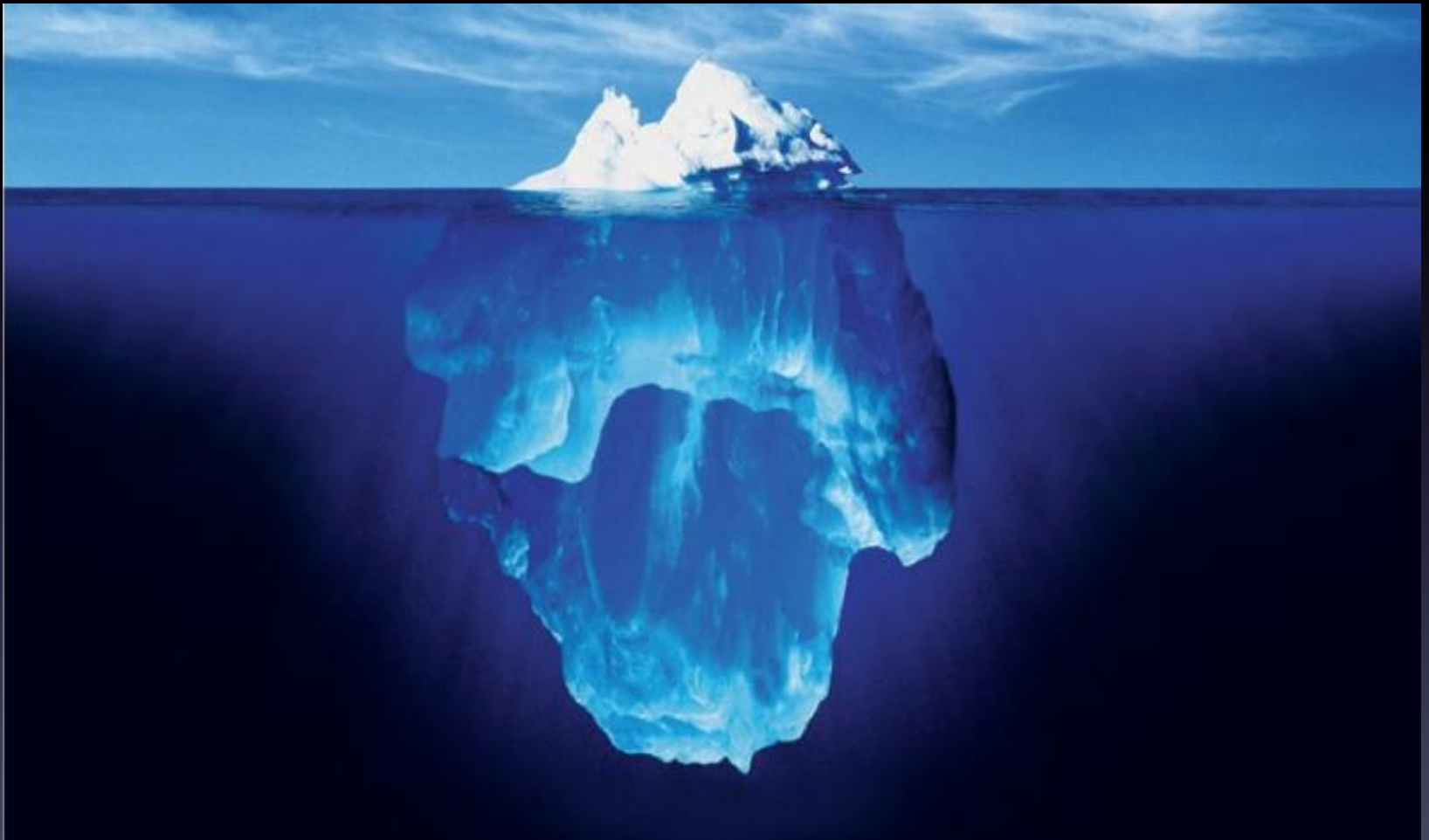
- Integrate mindfulness practice
- Design comfort space
- Provide opportunities for physical exercise or taking a break
- Create rituals
- Build classroom community
- Teach emotional literacy

In Summary

- **“We need to nurture the hell out of these children.”** –Rick Hanson
- Cardinal question: **“Given the totality of my relationship with this child, is it likely he or she will see me as being on their side?”**
 - The answer has to be yes.

(Hodas, 2006, p. 64)

Final Takeaways



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