

## Trauma Informed Practice & The Science of Early Childhood Development



Building Connections, Building Healthy Brains  
Chilliwack, May 2016

## Resources



- Dr. Bruce D. Perry – *Child Trauma Academy*
- Dr. Vincent Felitti, et.al. – *ACE Study*
- Dr. Dan Siegel & Dr. Tina Payne – *The Whole Brain Child*
- Dr. Karyn Purvis – *The Connected Child*
- Dr. Ross Green & Dr. Stuart Ablon – *Collaborative Problem Solving*
- Evelyn Wotherspoon – *Infant Mental Health Clinician*
- Harvard Center on the Developing Child
- Dr. Chuck Geddes - *CCI Program*
- Dr. Daniel Hughes – *Attachment based therapies*
- Heather T. Forbes – *Beyond Consequences, Logic & Control*



## Goals & Agenda



- ❖ Definitions & Types of Trauma
- ❖ What Supports Healthy Brain Development
- ❖ What Derails Healthy Brain Development
- ❖ 3 Critical Pillars of Intervention

## Did you know.....?



**1 in 10 people**

in Canada suffers from

**Post-Traumatic Stress  
Disorder**



-- McMaster University Medical Centre, 2008

Trauma-Informed Practice  
provides a new paradigm shift

**From:**

*"What's wrong with you?"*  
(behaviours)

**To:**

*"What has happened to you?"*  
(brain functioning)

## Trauma-Informed Practice Approach

**Allows clinicians, teachers, and caregivers to better:**

- Understand the *strengths* and *vulnerabilities* of individuals
- Target *developmentally appropriate* activities & interventions

## How We See Things Influences our Understanding & Response



A Different Understanding  
May Lead to a Different Outcome.....



"Your understanding  
determines your solution"

Dr. Stuart Ablon,  
Collaborative Problem Solving, 2010

## Won't vs Can't Behaviour

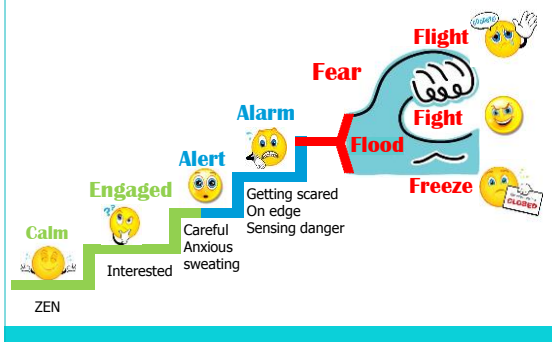
### Is behaviour always within willful control?

- Behaviour management strategies that **consequence bad behaviour implies that behaviour is in willful** or conscious control.
- But what if a child's behaviour is a reflection of an **unconscious reflective response** to a trauma trigger?

## Trauma Response Behaviour

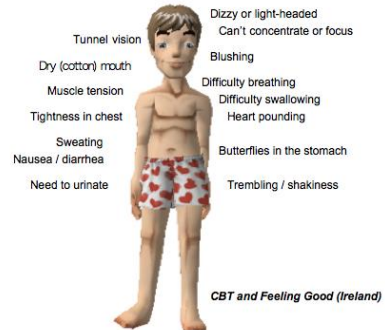


## The Arousal or Stress Response Continuum



## The Physiology of Fight or Flight

What we know is happening...



## How would you.....

- Define trauma?
- Decide what makes something traumatic as opposed to just stressful?
- Do children experience trauma or stress the same as adults?



## Trauma – Medical Definition

A serious bodily injury or shock, as from violence or an accident.

(The American Heritage Medical Dictionary, 2007)

## Trauma – Other Definitions

A response that involves intense fear, horror and helplessness; extreme stress that overwhelms the person's capacity to cope.

(American Psychological Association, 2000)

## Trauma – Other Definitions

The experience of violence and victimization including sexual abuse, physical abuse, severe neglect, loss, domestic violence and/or the witnessing of violence, terrorism or disasters.

(National Association of State Mental Health Program Directors, 2006)

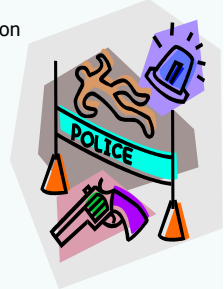
## Trauma – A Brain Definition

Internal or external experiences:

- that persistently activate the “**threat or fear response**”
- that may impede brain development & function.

## Traumatic Events in the Lives of Individuals

- Physical, emotional or sexual abuse
- Community violence & victimization
- Abandonment & neglect
- Domestic violence
- Traumatic loss
- Natural disaster
- Exposure to war, Refugee
- Medical trauma, injury, illness



## Exposure to Trauma

*It is an individual's experience of the event, not necessarily the event itself that is traumatizing.*



*Our experience.*

*A trauma survivor's experience.*



## Types of Trauma

### Acute Trauma

*A single traumatic event that is limited in time.*




## Types of Trauma

### Chronic Trauma

*The experience of multiple traumatic events.*



### Types of Trauma



**System Induced Trauma**


*The traumatic removal from home, admission to a detention/residential facility or multiple placements within a short time.*

### Types of Trauma



**Vicarious Trauma**

### Types of Trauma

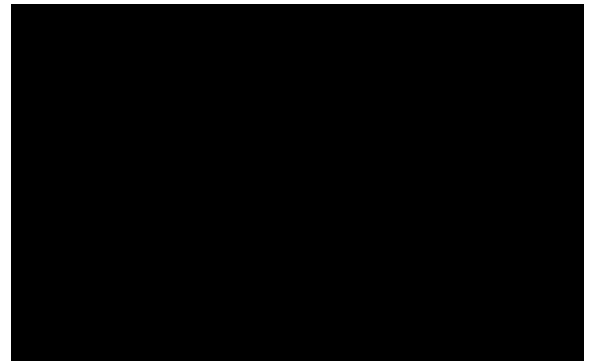


**Complex Trauma**

*Both exposure to chronic trauma and the impact of that exposure on an individual.*

### Complex Trauma Video

Sponsored by Spokane County Community Network



## Complex Trauma

- Usually takes place at an early age
- The exposure is sustained
- Most pervasive impact to development

...especially when trauma occurs within the child's **primary care giving system and/or social environment**

## Complex Trauma

Child's **brain-based stress response system** appears to become permanently changed



### Over-reactive Stress Response System

Children focus **unconscious attention** on the **need to ensure safety!**

## Six Primary (Trauma) Risk Factors

1. Difficult pregnancy
2. Difficult birth
3. Early hospitalization
4. Abuse
5. Neglect
6. Trauma



**Complex  
Development  
Issues**

Source: Dr. Karyn Purvis, Developmental Psychologist

Toxic Stress Derails Health Development  
Harvard University Center on the Developing Child

Toxic Stress Derails  
Healthy Development

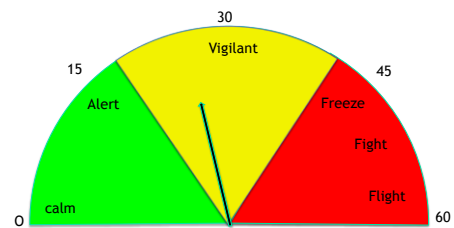
## Trauma or Toxic Stress

Repeated exposure to stress hormones

Cortisol ↓ Adrenalin

Changes Stress Response System

Takes less stimuli to activate it!



"Zero to 60" Kids

## The Stress Response in the Brain

- The stress response is crucial for survival.
- The stress response prepares us to react to danger.
- The stress response is operational at birth.



Humans are social creatures



A young child needs caregivers to survive.

## The Stress Response System

Babies & young children can experience stress but can't regulate the stress response

i.e. they **don't have the ability to soothe or turn off** their stress response system.



They need caregivers to **co-regulate** or **"calm their distress"**.

## ...But What About This?



## Children are More Vulnerable to Trauma than Adults

"The same sponge-like properties that enable our brain to absorb experiences such as language in the first 3 years of our life, also absorbs **chaos, threat, and fear** with the same facility as absorbing language."



Source: Bruce D. Perry, MD PhD

## The Stress Response System



Was Designed for This

## Toxic Stress

Chronic activation of the Stress Response System in the absence of an attuned, responsive caregiving relationships



is one of the most **powerful activators** of the stress response system.

## Not all Stress is Bad

Three types of stress:

### Positive

Brief Increases in heart rate, mild elevations in stress hormone levels

### Tolerable

Serious temporary stress responses buffered by supportive relationships

### Toxic

Prolonged activation of the stress response systems in the absence of protective relationships

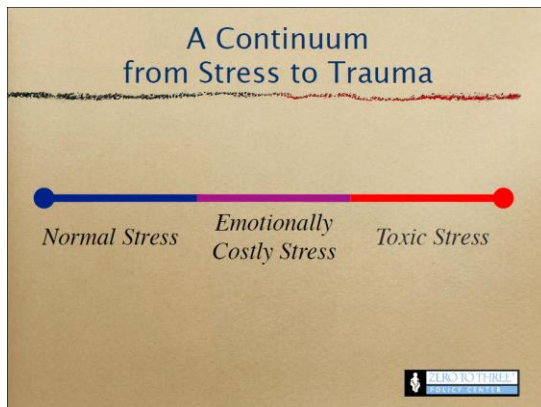


- Positive stress helps us **learn new skills**
- Positive stress can **build resilience** when we successfully manage stress



## Over-reactive Stress Response

- The normal stressors of life for a well-regulated child makes them stronger.
- But if you expose a dysregulated child to the same normal stressors, it actually makes them worse!

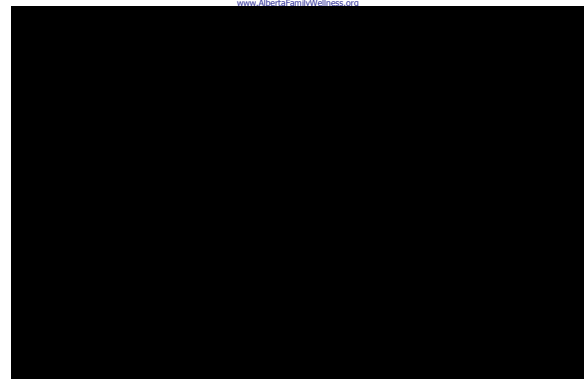


“If you are trying to influence the brain you will likely be more successful if you have a better understanding of the brain.”

Bruce D. Perry, MD, PhD, The Child Trauma Academy

Our Exciting Role to Support Building Brains

www.AlbertaFamilyWellness.org



## What Determines How Our Brains are Structured?

The **building blocks** of brain architecture:

- What we are born with = our genes
- The lives we live = our experiences



## Brains Aren't Just Born, They're Also Built

Experiences in the first years of life actually affects the **physical architecture** of the developing brain.



Sturdy or fragile?

Source: Harvard Center on the Developing Child



### Brain Organization & Function Key Points

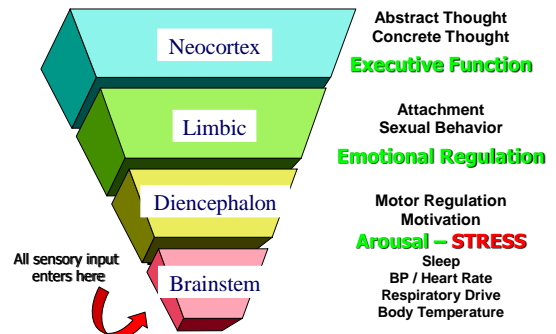
- The brain develops in a predictable fashion – from the most **primitive structures to the most complex**.
- **Basic functions develop first & provide the foundation** for the development of later **more complex functions**.

**One skill begets the next skill**

Source: Bruce D Perry and The ChildTrauma Academy 2006-2011

### Building the brain From simple to complex:

Bruce D Perry, MD 2006



### Brain Organization & Function Key Points

- There are **“Sensitive Periods”** of brain development.
- The **first four years** of life are a developmentally **sensitive period**.

All rights reserved Bruce D Perry and The ChildTrauma Academy 2006-2011



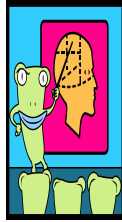
### Experiences Build the Brain

The **“Sensitive Periods”** of brain development are a **window in time** when **“something” must happen** for normal development to take place.

Source: Bruce D Perry and The ChildTrauma Academy 2006-2011

## Sensitive Period of Brain Development

- **% of brain growth** occurs between third trimester and age 2
- **90% of post-natal** growth occurs before age 5
- This period **devours more calories** than any other phase of brain development



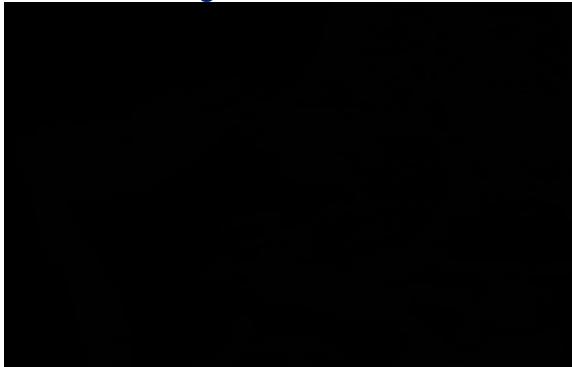
→ 60% of infant's  
daily calories support brain development versus  
→ 16% - 18% of adult's

## How Does It Develop? In the Context of Relationships

- Healthy infant & child development is all about **relationships**
- Brains are built on the 'Serve & Return' of human interaction – **a circle of communication**



## The Amazing Talents of the Newborn



## Serve and Return Exchanges

- **Quality** of back & forth connectedness builds a baby's brain
- Needed for children
  - ➡ to regulate their **emotions**,
  - ➡ to develop **language**,
  - ➡ to develop **motor skills**
- **Soothing & calming a child** through serve and return exchanges helps the child learn that relationships & connections with others are essential



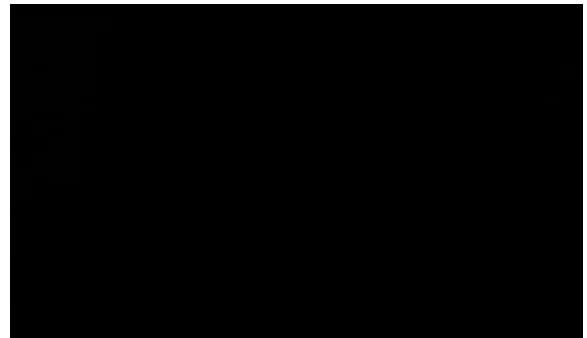
**These sensitive periods are also  
windows of vulnerability**

The systems that are developing at this time are also most sensitive to environmental input—including **traumatic experience or toxic stress**.

Source: Bruce D Perry and The ChildTrauma Academy 2006-2011

## The Still Face Experiment

Dr. Edward Tronick, Harvard University



## The Stress Response System

**Repeated attuned co-regulation  
helps the child's brain begin to develop  
the capacity to self-regulate.**

## Take Home Messages

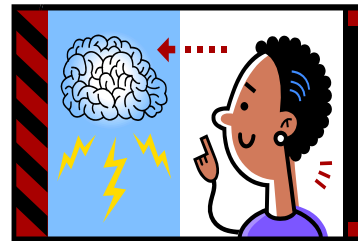
- Early experiences matter.
- Relationships are the *active ingredient*.
- Children need adults to co-regulate them in order to develop self-regulation skills.
- Babies & young children are highly adaptable--but they can pay a price if without "good enough" parenting.



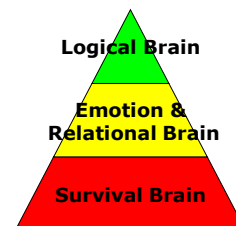
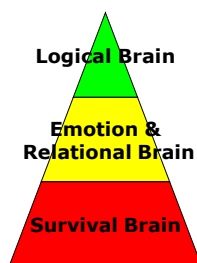
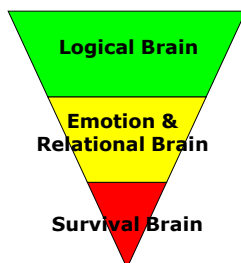
## Key Pre-Requisites for Healing



- The development of **"felt" safety**
- The promotion of **healing relationships** (attachment)
- The **teaching of self-management** (self-regulation) and **coping skills**



You can't change any part of the brain that you're not activating!

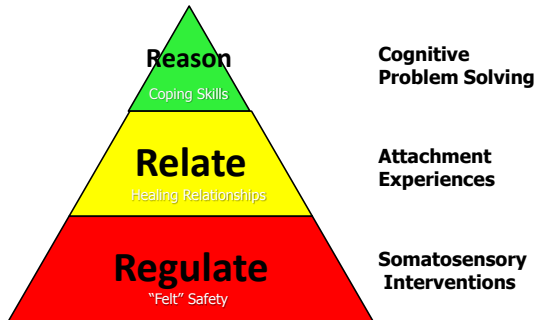


## How is Behaviour Organised?

Source: Dr. Chuck Geddes, 2012

**Brain stem reorganization  
is required if a child has experienced  
early years toxic stress**

## Re-Organizing Behaviour



## Highly Regulating Activities



**Music**



**Yoga**



**Martial Arts**



**Exercise**



**Reading**



## Somatosensory Experiences



**Patterned, Repetitive, Rhythmic** sensory experiences  
naturally calm the lower brain.

- Music
- Movement: basketball, soccer, biking, jogging, swimming, etc
- Deep pressure, weight lifting, massage
- Deep Breathing, singing, blowing bubbles
- Yoga
- Mindfulness/Mind-Up Program
- Animal Assisted Therapy
- OT sensory assessment



## Lots of Physical Activity!!

- **Movement: rough & tumble free play**  
-- 3 to 4 hours/day for optimal development for all children
- Bilateral movement helps stimulate neuronal growth
- Rough and tumble play builds coordination and core strength—reduces fear, builds sense of competence
- **Movement helps calm emotions, teaches self-regulation**

Elina Falck, Certified Trauma Specialist



## The Joy of Play!!

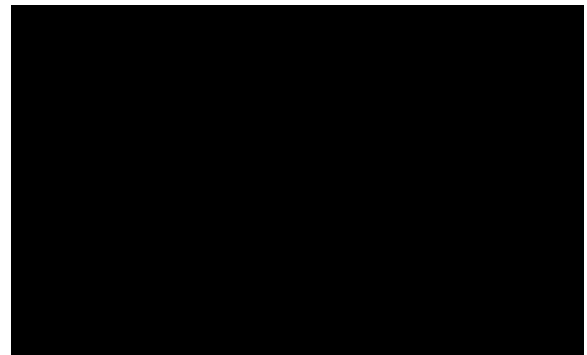


- Play increases endorphins
- Physical activity every 2 hrs lowers stress chemicals
- All children learn better when in motion



## Activities for Self-Regulation

Dr. Bruce D. Perry



## Be Consistent



- Children who have an *over-reactive stress response* are often very sensitive to changes.
- Be “boringly predictable”!

## Teach feelings



### Label and give words to different feelings

- Help the child pay attention to the physical part of their emotional reactions.
- Teach healthy ways to act when having feelings.

## Teach to Their Emotional Age

- Chronological and emotional age are often mismatched
- **Reduce expectations**
- Child may not have developed the neural pathways required to manage behaviour



## Keep in mind

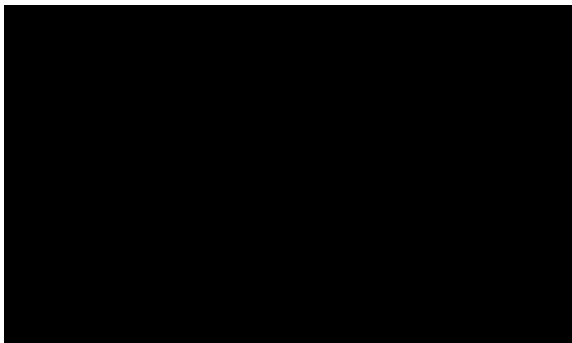
Some children

**may need adults who are willing  
to co-regulate with them**

when their emotions run wild.



## Calming the Mind & Brain “Just Breathe”



**"They may forget what you said  
but they will never forget  
how you made them feel."**

- Carol Buchner -

## Tips to Teach

- Learn to notice and avoid emotional “triggers”
- Allow control: Keep to a routine, give choices
- Don't take behaviours personally
- Remain as calm, patient, logical as possible
- Acknowledge (and respect) the child's feelings
- Don't expect quick results!
- Practice Self Care to support Self-Regulation



## Self Care as an Ethical Obligation

- “We can't teach what we don't know. We can't lead where we won't go.” --- Malcolm X
- “You cannot give away that which you do not have.” --- Julie Alvarado
- You must look at what state a child is in to determine what intervention is most helpful. *It's very difficult to help someone regulate if the person is not well regulated themselves.* --- Dr. Bruce D. Perry

## Some Final thoughts.. Children Are Doing the Best They Can!

- Our job is to teach them how to adapt to our world
- Our job is to support them as teachers
- If we're both patient and persistent, we can help make the transition successful.



## Trauma Informed Community of Practice

- **Who:** Monthly sessions are open to anyone who wishes to attend, no pre-registration required.
- **What:** An educational DVD is shown for 1 hour followed by facilitated discussion of DVD contents.

*Sessions also provide an informal opportunity to network and cross share knowledge, resources, etc.*

## Trauma Informed Community of Practice

- **Where & When:**  
**Chilliwack Community Services, Wellington St.** Boardroom  
 3<sup>rd</sup> Thursday of each month, 9-11am  
  
**Agassiz Work BC, Pioneer St.** meeting room  
 1<sup>st</sup> Thursday of each month, 9:30-11:30am  
  
**Mission Fraser House,** meeting room  
 1<sup>st</sup> Wednesday of each month, 12-1pm

Thank You!



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