

1

---

---

---

---

---

---

---

---



2

---

---

---

---

---

---

---

---



3

---

---

---

---

---

---

---

---

Take care of you today....

The content of this training can evoke strong emotions and may trigger personal experiences of trauma. Please be mindful of your own wellbeing during this training and if you need support please do what you need to do to feel safe. We are happy for you to talk to the facilitator if you need to.

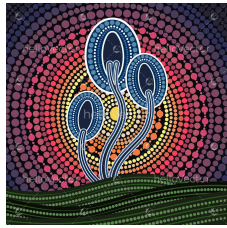


Image: Hellovector.com



professionals.childhood.org.au

4

---

---

---

---

---

---

---

---

Our journey today....

- Importance of relationships and culture
- Brain development
- Understanding the impacts of trauma
- Creating Safety
- 5 Parenting Systems
- Repairing the impacts of trauma all the way through today



Image: Aboriginal Art Store



professionals.childhood.org.au

5

---

---

---

---

---

---

---

---

professionals.childhood.org.au

Importance of relationship and culture



6

---

---

---

---

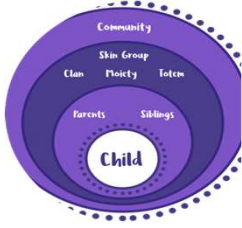
---

---

---

---

### A collective view of relationships



7

---

---

---

---

---

---

---

---

### I need connection to my CULTURE



8

---

---

---

---

---

---

---

---

### The Importance of Culture

A protective factor

Safety: Belonging

Relationships: Connection

Meaning making: identity

Our culture influences our brain development. How has it influenced yours? Think about:

- Sense of safety
- Relationships
- Meaning making



This Photo by Unknown Author is licensed under CC BY-SA-NC

9

---

---

---

---

---

---

---

---

Southern Cultural Immersion

Mukapathi

Kauria Language Hub

Kauria Warra Pintyanthi

Uncle Rod O'Brien

Kauria owned and operated

Australian Childhood Foundation

10

---

---

---

---

---

---

---

---

Living in two worlds

Australian Childhood Foundation

professionals.childhood.org.au

11

---

---

---

---

---

---

---

---

professionals.childhood.org.au

Understanding the impacts of trauma

Australian Childhood Foundation

12

---

---

---

---

---

---

---

---

### Defining trauma

Any single, ongoing or cumulative experience which:

- is a response to a **perceived threat**, usually to survival
- **overwhelms** our capacity to cope
- feels/is **outside our control**
- often evokes a **physiological and psychological** set of responses based on fear or avoidance

Australian Childhood Foundation  
professionals.childhood.org.au

13

---

---

---

---

---

---

---

---

### Trauma impacts

Trauma can impact all elements of adolescent's development: brain, body, memory, learning, behaviour, emotions, relationships and their view of themselves

Image source: GACF 2021

Australian Childhood Foundation  
professionals.childhood.org.au

14

---

---

---

---

---

---

---

---

professionals.childhood.org.au

### Brain Development

Australian Childhood Foundation

15

---

---

---

---

---

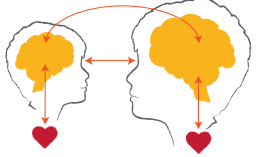
---

---

---

### Brain development

- The brain develops through a mix of genetics and environmental factors.
- Key to this development are relationships
- The brain develops sequentially from the bottom up



Australian Childhood Foundation  
professionals.childhood.org.au

16

---

---

---

---

---

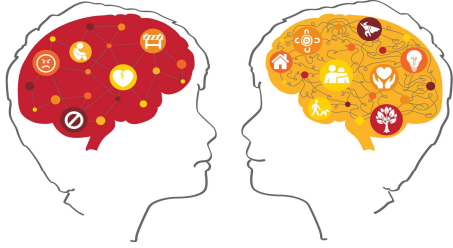
---

---

---

### Early experiences shape the architecture of our brain

Threat and Neglect → Survival      Safety and Connection → Integration



Australian Childhood Foundation  
professionals.childhood.org.au

17

---

---

---

---

---

---

---

---

### Neuroplasticity is hope

- The brain is at its most plastic in early childhood
- In early childhood, the brain is most vulnerable to harm, but also has the greatest potential for healing
- Neuroplasticity gives us hope



Australian Childhood Foundation  
Professional Education Services  
childhood.org.au/training

18

---

---

---

---

---

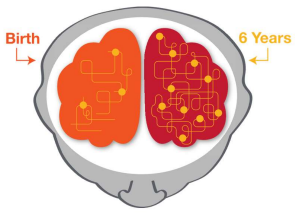
---

---

---

### Neuronal connections

- The neural system has the ability for one neuron to communicate with up to 10,000 other neurons
- The newborn brain has approximately 100 billion neurons



The diagram shows a cross-section of a brain with red and orange neurons. An arrow labeled 'Birth' points to the left side of the brain, and an arrow labeled '6 Years' points to the right side. The right side shows a much denser network of connections.

Australian Childhood Foundation  
professionals.childhood.org.au

19

---

---

---

---

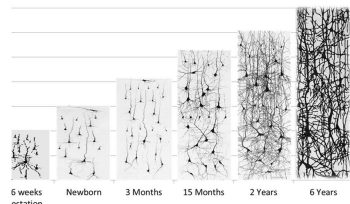
---

---

---

---

### Neuronal development



The timeline shows six stages of neuronal development: 6 weeks gestation, Newborn, 3 Months, 15 Months, 2 Years, and 6 Years. Each stage is represented by a vertical strip showing the increasing density and complexity of neuronal connections over time.

- Rapid growth occurs from birth to 6 years
- **Critical period** of development
- Healthy neuronal development occurs through **relationships, regulation, repetition**

Australian Childhood Foundation  
professionals.childhood.org.au

20

---

---

---

---

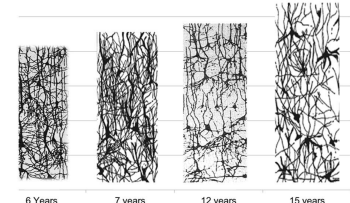
---

---

---

---

### Neuronal development



The timeline shows four stages of neuronal development: 6 Years, 7 years, 12 years, and 15 years. Each stage is represented by a vertical strip showing the changes in neuronal connections, including pruning and the formation of new neurons.

- Early years – period of **rapid growth**
- Followed by onset of puberty in which **synaptic pruning and formation of new neurons** occurs.

Australian Childhood Foundation  
professionals.childhood.org.au

21

---

---

---

---

---

---

---

---

**Sequential brain development – building blocks**

	<b>The Thinking brain</b> 3-5 Years
	<b>The Emotions and Memory Brain</b> - Birth to 4 years
	<b>The Movement Brain</b> Birth – 2 years
	<b>The survival brain</b> Pre birth to 8 months

Australian Childhood Foundation professionals.childhood.org.au

22

---

---

---

---

---

---

---

---

**Brainstem - basic life functions**

- Basic life functions
- First part of our brain to develop
- This is the most developed brain part at birth
- Responsible for our heart beat, breathing, sucking, temperature control, blood pressure

Australian Childhood Foundation professionals.childhood.org.au

23

---

---

---

---

---

---

---

---

**The brain stem under stress and trauma**

- may experience fast or slower heart rate
- shortness of breath or breathing difficulties
- sleep disturbances and unsettledness
- sucking and swallowing and digestion difficulties
- may feel hot or cold or not notice changes in temperature

Australian Childhood Foundation professionals.childhood.org.au

24

---

---

---

---

---

---


---

---



**Cerebellum- movement and balance**

- Helps us to know where our body is in space
- Helps us with our posture and balance
- Helps us not to fall over and to control our movements
- Has its own connective pathways between the 2 halves- cerebellar vermis



Australian Childhood Foundation professionals.childhood.org.au

25

---

---

---

---

---

---

---

---

**The cerebellum under stress and trauma**

- Difficulties coordinating cognitive processes such as planning & working memory
- difficulty in maintaining posture & balance
- difficulty in undertaking tasks that require balance
- lack of awareness of their body in space
- difficulty with voluntary movement tasks – walking or writing




Image source: Shutterstock

**What do you notice and what can you do?**

Australian Childhood Foundation professionals.childhood.org.au

26

---

---

---

---


---

---

---

---

**The Rhythm of life- Capacity building**



HEART BEAT RHYTHM RHYME INTONATION BREATH

Australian Childhood Foundation professionals.childhood.org.au

27

---

---

---

---

---

---

---

---

Professional Education Services  
professionals.childhood.org.au

### Emotional centre

Limbic Lobe  
Amygdala  
Hippocampus




28

---

---

---

---

---



---

---

---

### Limbic lobe- emotional gateway

- The part of the brain that helps us attach an emotion to an experience or memory
- This part of the brain is particularly involved with the emotions of fear and anger
- Also heavily involved in attachment processes
- This area develops mainly after birth

professionals.childhood.org.au

29

---

---

---

---

---

---

---

---


### Limbic Lobe- Building Capacity

Relies upon attunement

What is attunement to you?

The carer being the investigator: the connector, the nurturer, the container.

We look at emotional regulation more deeply in connection later..



professionals.childhood.org.au

30

---

---

---

---

---


---


---

---

**Reflection**

- What are some things that you do to support your child's emotional development?



 Australian Childhood Foundation professionals.childhood.org.au

31

---

---

---

---

---


---

---

---

**Limbic lobe- Building Capacity**

- Co-regulation
- Body awareness
- Emotional literacy
- Play
- Praise

 Australian Childhood Foundation Professional Education Services  
childhood.org.au/training

32

---

---

---

---

---


---


---

---

**Amygdala – smoke alarm**

- Detects threat
- Develops from birth
- Learns by association
- Involved in implicit memory processes



 Australian Childhood Foundation professionals.childhood.org.au

33

---

---

---

---

---

---

---

---

**The amygdala under stress and trauma**

- can be over active or under active
- can evoke reminders and flashbacks of the trauma (awakenings)
- will have difficulty in emotional regulation
- will have difficulty in reading facial expressions
- Constantly 'firing' – can hijack the cortex (thinking goes offline)

**What do you notice and what can you do?**




Image source: Shutterstock

Australian Childhood Foundation professionals.childhood.org.au

34

---

---

---

---

---

---

---

---



Australian Childhood Foundation professionals.childhood.org.au

35

---

---

---

---

---

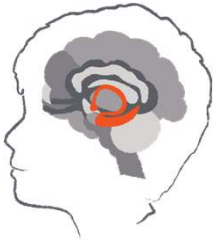
---

---

---

**Hippocampus – Brain's historian**

- Explicit memory system
- Develops approximately 2-3 years of age
- Provides context to memory and embeds long term memory



Australian Childhood Foundation professionals.childhood.org.au

36

---

---

---

---

---

---

---

---



37

---

---

---

---

---


---

---

---

### Strategies for transforming – Hippocampus

- Repetition
- Visual Reminders
- Review
- Reinforce



*Calming the brainstem, quietening the amygdala and boosting the cerebellum will all help the hippocampus to function more effectively*

Australian Childhood Foundation logo and website address 'professionals.childhood.org.au' at the bottom.

38

---

---

---

---

---


---

---

---

### Cerebral cortex- complex thinking

- The largest part of the brain
- Associated with higher brain function such as thought and action
- Examples of functions:
  - Reasoning
  - Logic
  - Judgement
  - Voluntary movement



Australian Childhood Foundation logo and website address 'professionals.childhood.org.au' at the bottom.

39

---

---

---

---

---


---

---

---

### The prefrontal cortex- executive function

- Responsible for executive functions, such as judgement, reasoning, and self-awareness
- Final part of the brain to reach maturity in one's mid 20s
- Under reconstruction in adolescents from the age of approximately 12 years



Australian Childhood Foundation professionals.childhood.org.au

40

---

---

---

---

---

---

---

---

### Strategies for building healthy brain development

Brainstem & Diencephalon	Basic survival & sensory processing	Pacification or stimulation. Activities in the child's preferred sensory modality
Cerebellum	Coordination of movement	Using music, rhyme and movement activities
Limbic	Emotional processing	Building relational connection through plays, animals, games
Cortex	Thinking processes	Linking experiences and sensations to words and descriptions
Prefrontal cortex	Analytical and abstract thinking	Challenges and safe risk taking activities

Australian Childhood Foundation professionals.childhood.org.au

41

---

---

---

---

---

---

---

---



Australian Childhood Foundation Professional Education Services childhood.org.au/training

42

---

---

---

---

---

---

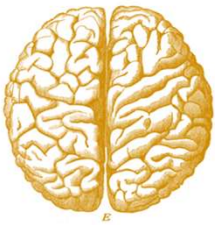
---

---

### Lateral brain development

**Left Hemisphere**

- Evaluates language content
- Optimistic hemisphere
- Understands beginning, middle and end
- Learns from the past and expects the future
- Looks for patterns



**Right Hemisphere**

- In the present moment
- Eye contact
- Facial expression
- Tone of voice
- Posture
- Gesture
- Intensity
- Is mute
- Grasps the whole

Australian Childhood Foundation professionals.childhood.org.au

43

---

---

---

---

---

---

---

---

professionals.childhood.org.au

## Creating Safety

Australian Childhood Foundation

44

---

---

---

---

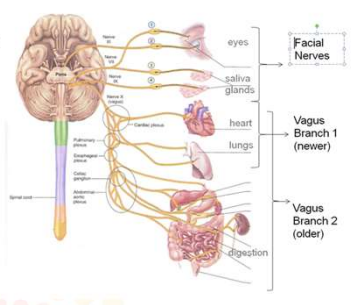
---

---

---

---

### The Vagus Nerve



Australian Childhood Foundation professionals.childhood.org.au

45

---

---

---

---

---

---

---

---

### Polyvagal theory and Protective Responses

by Stephen Porges

Behavioural Functions	Body Functions
<b>Social Engagement</b> Soothing and calming Indicates safety	• Lowers or raises vocalisation pitch • Regulates middle ear muscles to perceive human voice • Changes facial expressivity • Head turning • Tears and eyelids • Slows or speeds heart rate
<b>Mobilisation</b> Fight or Flight Active Freeze Moderate or extreme danger	<b>Hyper arousal</b> • Increases heart rate • Sweat increases • Inhibits gastrointestinal function • Narrowing blood vessels - to slow blood flow to extremities • Release of adrenaline
<b>Immobilisation</b> Collapse or submission Death feigning Increased pain threshold Conserves metabolic resources Life threatening situations	<b>Hypo - arousal</b> • Slows heart rate • Constricts bronchi • Stimulates gastrointestinal function

Australian Childhood Foundation professionals.childhood.org.au

46

---

---

---

---

---

---

---

---

### When I am terrified

- Containment- help me feel back in my body
- Grounded- Help me feel present in the Here and Now.
- Present- Stay with me, help me know I am not alone in my distress

**Notice and name**

5 things you can see  
 4 things you can hear  
 3 things you touch/sense  
 2 things you can smell  
 1 thing you can taste

Australian Childhood Foundation

47

---

---

---

---

---

---

---

---

### Creating Safety

A young person's cortical capacity is impaired by trauma-as a result subcortical functioning becomes dysregulated  
 In order to regain cortical capacity, essential for learning, we must restore emotional regulation.  
 How do we create:

- Regulation (calm)
- Engagement
- Connection
- Control

Australian Childhood Foundation professionals.childhood.org.au

48

---

---

---

---

---

---

---


---



### Working with nervous systems

Increase Resources – Regulatory Capabilities

**Social Engagement**



**Offer...**

- Heat snap pack
- Something weighted
- Something rhythmic
- Reduction in stimulus
- Physical task

**Mobilising** →

**Immobilising** →

**Offer...**

- Heat snap pack
- Gentle sensory/spine engagement
- Chewing on a sweet or sour lolly, drinking cold or sweet

**Offer...**

- Punching bag
- Screwed up paper to kick / throw
- Change environment
- Pool noodle

**Offer...**

- Drip cold water on the skin i.e. palm initially
- Music, hum
- Voice of safe person
- Seek small movement

Australian Childhood Foundation | Professional Education Services | childhood.org.au/training

49

---

---

---

---

---

---

---

---

---

---

---

---

### Polyvagal Theory

I am showing you....	On the inside.....	I need you to....
<p><b>CRUEL (MIS)HEART</b></p> <p>Feeling safe, being in relationship, connection oriented</p> <p>You might say I am:</p> <ul style="list-style-type: none"> <li>Making eye contact</li> <li>Listening</li> <li>Engaging in play and exploration</li> </ul>	<p>I am feeling:</p> <ul style="list-style-type: none"> <li>Safe, Calm, Happy, Sober, Annoyed, Reflective, Proud, Content</li> </ul> <p>My body says:</p> <ul style="list-style-type: none"> <li>Approach others</li> <li>Sit still</li> <li>Breathe deeply</li> </ul>	<p>Help me to play regulate:</p> <ul style="list-style-type: none"> <li>Play and have fun with me</li> <li>Share novel, positive experiences</li> <li>Set boundaries and natural consequences</li> <li>Use reflective and problem solving skills so I can learn from you</li> <li>Notice and acknowledge my strengths and my skills</li> </ul>
<p><b>MISHEART</b></p> <p>Fight, flight, active freeze, action oriented</p> <p>You might say I am:</p> <ul style="list-style-type: none"> <li>Aggressive</li> <li>Loud</li> <li>Fighting</li> <li>Recoiling away</li> <li>Hypertensive</li> </ul>	<p>I am feeling:</p> <ul style="list-style-type: none"> <li>Distress, Frightened, Lonely, Hurt, Confused, Overwhelmed</li> </ul> <p>My body says:</p> <ul style="list-style-type: none"> <li>Run away</li> <li>I'm not</li> <li>I can't see well</li> <li>I need to move</li> </ul>	<p>Help me to down regulate:</p> <ul style="list-style-type: none"> <li>Keep me safe</li> <li>Co-regulate – be safe, attuned and responsive to me</li> <li>Use movement – like slow, steady jumping</li> <li>Helping, singing, chanting, and jingles</li> <li>Create a safe space near you where I can retreat to until I feel better</li> <li>Model deep breathing</li> <li>Repair our relationship – we are ok and our relationship is strong</li> </ul>
<p><b>IMMISHEART</b></p> <p>Withdrawal, collapse, submission, dissociation, avoided orientated</p> <p>You might say I am:</p> <ul style="list-style-type: none"> <li>Withdrawn</li> <li>Avoiding contact</li> <li>Compliant</li> <li>Hiding</li> </ul>	<p>I am feeling:</p> <ul style="list-style-type: none"> <li>Disconnected, Unbecome, Flat, Withdrawn, I'm disappearing</li> </ul> <p>My body says:</p> <ul style="list-style-type: none"> <li>Avoid others</li> <li>I'm not in my body</li> <li>Can't sit in a chair</li> </ul>	<p>Help me to up regulate:</p> <ul style="list-style-type: none"> <li>Co-regulate – be safe, attuned and responsive with me</li> <li>Set me an safe and demonstrate it with your actions, gestures and tone of voice</li> <li>Help me to orient to the floor so I can try standing for specific things like something green, something on the floor or something on the floor</li> <li>Help me to feel my body by noticing different parts, such as my feet on the floor and my action on the chair</li> <li>Repair our relationship – we are ok and our relationship is strong</li> </ul>

Discussed in the work of Dr Dan Siegel, Dr Stephen Porges and Dr Bruce Perry | professionals.childhood.org.au

50

---

---

---

---

---

---

---

---

---

---

---

---

## Hand to Hand Attunement

Let's work together to hold an object up between our hands or fingers and not let it fall.



We will need to synchronise our movements and attune to one another. What object feels right to hold between us? A big gum ball? A sports ball? A cushion? A balloon? A pencil? Let's try moving the object around. What is that like for you? As you move together, notice if one person is leading or if the movement initiation is swapping between you. Play around with this. When you become accomplished, add another object to you are using both of your hands to hold up, two objects between you. What does it feel like to be in synchrony with another person?

51

---

---

---

---

---

---

---

---

---


---

---

---

**Reflection**

- What do you need to feel safe and secure with your KWW worker?
- What are the things that make you feel at ease?

 Australian Childhood Foundation professionals.childhood.org.au

52

---

---

---

---

---

---

---

---

**Activity**

**How can we create safety for the children, young people we are caring for?**



 Australian Childhood Foundation professionals.childhood.org.au

53

---

---

---

---

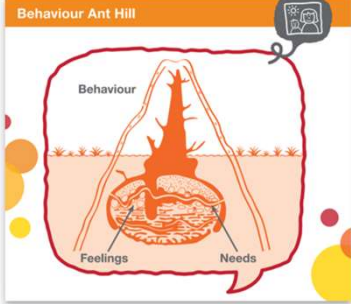
---


---

---

---

**Behaviour Ant Hill**



 Australian Childhood Foundation professionals.childhood.org.au

54

---

---

---

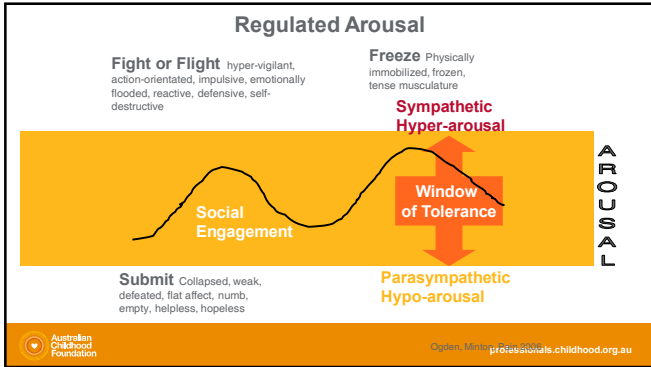
---

---

---

---

---



55

---

---

---

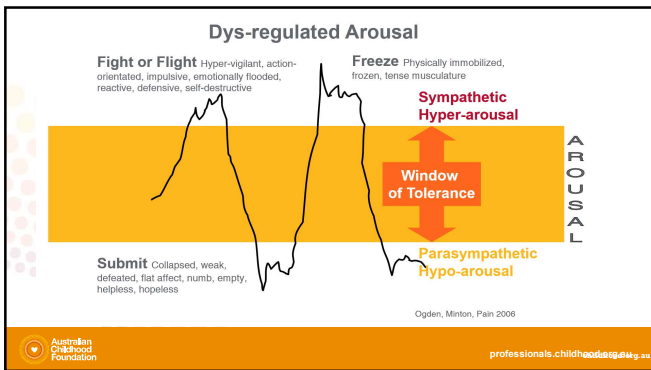
---

---

---

---

---



56

---

---

---

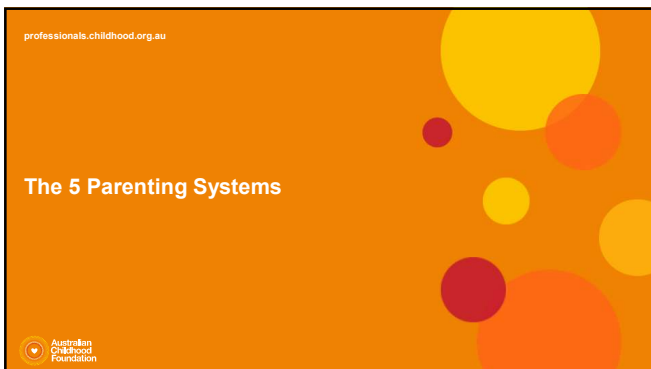
---

---

---

---

---



57

---

---

---

---

---

---

---

---

### Relationship is the key! .....Brain systems that support parenting

#### Parental Approach System

- Get close to the child without becoming defensive.

#### Parental Reward System

- Enjoy interacting with the child.

#### Parental Child Reading System

- Understand the mind of the child.

#### Parental Meaning Making System

- Make sense of our experiences with the child and our social life.

#### Parental Executive System

- Regulate interpersonal conflicts between approach and avoidance, pro-social and defensive reactions.

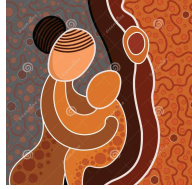


Image source: Dreamtime

58

---

---

---

---

---

---

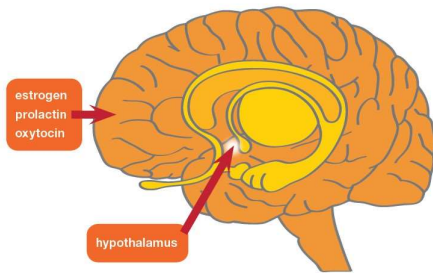
---

---

---

---

### Approach System



59

---

---

---

---

---

---

---

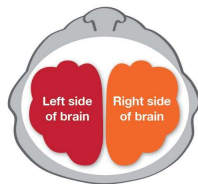
---

---

---

### Early Adversity impacts our Parenting ability

The environment we grow up in can shape how we use our right and left brain systems of avoidance and approach. If we begin life exposed to insensitive caregiving our right brained harm avoidance system is likely to be used a lot. Instead of feeling protected and connected with our caregiver, we are more likely to need to shift into a defensive state of protest or collapse in order to try to protect ourselves.



60

---

---

---

---

---

---

---

---

---

---

### Reward System

1. We become a parent which generates hormones that talk to our hypothalamus.

2. Our hypothalamus releases oxytocin (the love hormone) which activates the reward system.

3. The reward system works by this area sending dopamine to the orbitofrontal cortex and the nucleus accumbens.

Hypothalamus

Orbitofrontal cortex plays a key role in processing rewarding experiences and helps us create positive parenting memories.

Dopamine

When the **Nucleus accumbens** is activated we become highly motivated to approach things that have led to reward in the past. It can become activated responding to expectations of positive interactions with our child.

Australian Childhood Foundation professionals.childhood.org.au

61

---

---

---

---

---

---

---

---

### Child Reading System

Facial Expression  
Tone of Voice  
Body Language  
Gestures

Australian Childhood Foundation professionals.childhood.org.au

62

---

---

---

---

---

---

---

---

### Meaning Making System

Well-Connected Brain  
Utilizing the front part of the brain

Stressed out Brain  
Utilizing the more primitive middle region of the brain

Open Flexible and Adaptive

Closed and Rigid

Australian Childhood Foundation professionals.childhood.org.au

63

---

---

---

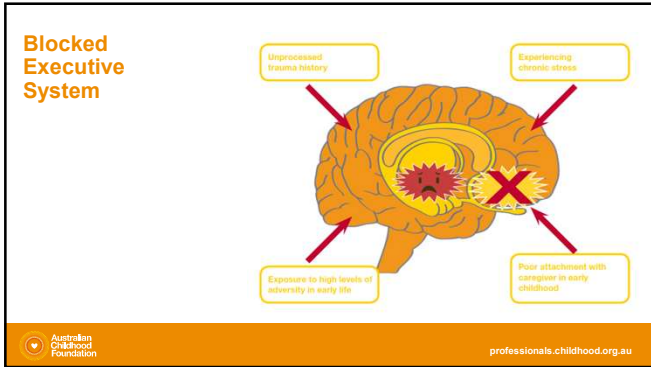
---

---

---

---

---



64

---

---

---

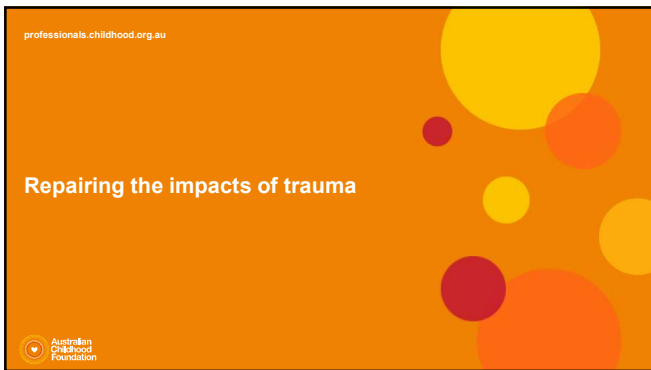
---

---

---

---

---



65

---

---

---

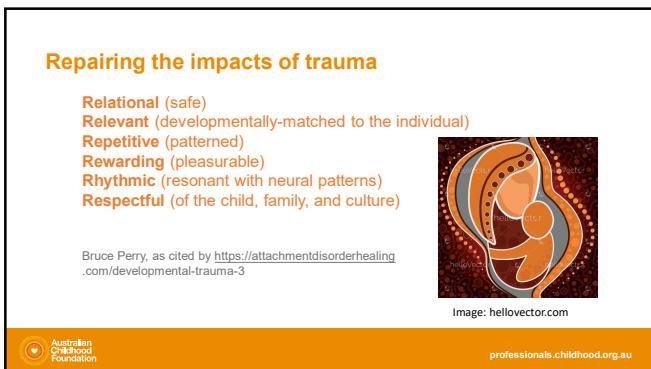
---

---

---

---

---



66

---

---

---

---

---

---

---

---

**Safety and listening the child**

- Model attunement
- Ensure that the child is seen and kept in focus throughout the assessment and that account is always taken of the child's perspective
- Are they ready-how long can you sit and wait
- Validate what the child is feeling
- Check meaning
- Make sense of what is happening for the child
- What will have meaning



professionals.childhood.org.au

67

---

---

---

---

---

---

---

---

**PACE**

- Playfulness
- Accepting
- Curious
- Empathetic



professionals.childhood.org.au

68

---

---

---

---

---

---

---

---

**PACE Helps**

- The social engagement system come online
- Connect the prefrontal cortex (thinking brain) to the lower regions of the brain (emotional and survival brain)
- Calm the threat sensing amygdala by sending a message of safety.
- Connect children and their caregivers
- Aid the growth of regulation skills.
- Build the ability to reflect
- Develops the child make meaning of themselves, their stories and their behaviour.

**PACE uses all 5 parent brain systems (approach, reward, child reading, meaning making and executive)**



professionals.childhood.org.au

69

---

---

---

---

---

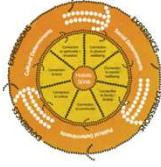
---

---

---

**Key considerations**

- There is no magic wand!
- It takes time and patience: persistence and repetition is a must
- You matter in this work!
- Your relationship with the child is key
- Each child is individual which adds to the complexity
- Trial and error is common
- A titrated approach is important



70

---

---

---

---

---

---

---

---

**Respect diversity in cultures and child rearing practices while keeping child safety paramount**

Respecting diversity should be taken to mean 'having the same aims for people's wellbeing and safety but finding different ways to achieve them' that are more appropriate to the person's different perspective.

- Being child-safe respects cultural difference:
- thinks about safety and wellbeing concepts from a cultural perspective
  - takes steps to develop cultural competence to respond in a culturally appropriate manner
  - takes guidance from experienced others (for example, seek advice from recognised Aboriginal or Torres Strait Islander organisations in regards to the needs of children from these backgrounds), and
  - approach family cultural contexts with sensitivity.

71

---

---

---

---

---

---

---

---

Thank you for coming today...



Image: Pinterest

72

---

---

---

---

---

---

---

---



professionals.childhood.org.au

**Melissa Powney**  
Senior Advisor

Email: mpowney@childhood.org.au



---

---

---

---

---

---

---