



Developmental Trauma & the Brain: How to Take a Bottom-Up Approach to Supporting Healing & Regulation with Children

FAST FACTS

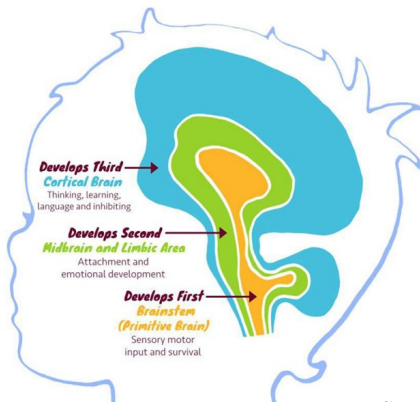
Research has shown us that brain development is impacted at any stage when children experience trauma, adverse experiences, chronic stress and attachment disruptions. This may seem discouraging or overwhelmingly negative, but the good news is that research has also shown that our brains are plastic. Plastic may be a strange word to describe our brains, but what that really means is that thanks to *neuroplasticity* (or brain plasticity) our brains are able to form new neural pathways throughout our lifetime. So with the right supports in place, children's brains can heal, grow and change to encourage healthy growth, repair and development.

This resource is designed to provide you with some basic information about the brain and nervous system and how it is impacted by trauma, as well as ways to support healthy nervous system in children who have experienced developmental trauma.

How the Brain Develops

Our brains develop from the bottom up to help us survive and grow from birth through adolescence (and beyond!). The first part of the brain to develop is called the *brainstem* and is also known as the *primitive brain*. This part of our brain is responsible for keeping us alive and safe. It helps us fight for our life, freeze inside or in our bodies, and/or run away from danger. It also takes in important sensory information for survival and development. The second part of the brain to develop is the *limbic brain*, which is the home to our feelings, our ability to form attachments with others, and plays an important role in the formation of memories. The third part of our brain to develop is called the *cortical brain*, which is where thinking, learning, language, identity formation and cognitive processing of emotional information takes place.

Having an understanding of how and in what order the brain develops is helpful in guiding us in how to support children with getting their developmental needs met and regulating when they are having a tough time.



Source: Beacon House Therapeutic Services & Trauma Team, 2019

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Recognizing and Understanding Dysregulation

Being curious about a child's behavior is a great way to begin understanding how and why they become dysregulated, and what can be helpful for them in order to regulate themselves (self-regulation) and to regulate with your support (co-regulation). Behaviors tell us a story about what a child is experiencing and what they might be needing in any given moment. If we can figure out the story that we are being told, we can begin to experiment with different regulation strategies and supports to bring a child back into their *window of tolerance* (a state of arousal that is both tolerable and allows the child to connect, learn, think and be regulated). Here are some tips for how to spot if your child is in a state of *fight*, *flight*, *freeze* or *collapse*, as well as some tips for how to respond accordingly:

Spotting Fight	Regulating Fight	Spotting Flight	Grounding Flight
Disrespectful, disregarding of others, pushing away friends, family members Argumentative, angry and aggressive, shouting, loud, noisy, confrontational Unable to follow house rules Immature, unable to concentrate on one thing Hot and bothered Lie or blaming Controlling, demanding, inflexible	Deep breathing Really chewy foods Hanging, swinging, climbing Warm bath with lots of bubbles Warm milk or hot chocolate Hot water bottle Super soft blanket/toy Give me an 'important' task Create a safe space where I can go to self soothe Keep me safe	Hyperactive, manic, chaotic, silly, baby talk, silly voices, loud, disruptive, clumsy, bumping into people Aggressive, threatening, stiffening up, clenching fists Running away escaping, disappearing, hiding Can't cope with free play or follow house rules Keeps super busy Needing to get to car, home, school, park first	 Keep me close by Deep breathing Tell me I'm safe Hanging Lap/Shoulder Pads Give me a familiar and easy chore Crunchy foods e.g. carrot sticks Happily and patiently find me Create a safe space for me to hide in Tug of war Warm milk or hot chocolate Hot water bottle and soft blanket/teddy
Spotting Freeze	Grounding Freeze	Spotting Collapse	Grounding Collapse
Bored, not interested. Distracted, not listening, day dreaming, staring into space Confused, forgetful Clumsy Subject change, talking about something else Not moving to where they've been asked Scanning the room Wide eyed, dilated pupils	 Stay with me, don't leave. Wonder where I've gone and invite me back. Tell me I'm safe. Watching TV Deep breathing Spinning on a swing, climbing, hanging, rolling or cycling down a hill, jumping on a trampoline Digging in mud or sand Hot chocolate and toast Warm bath and warm towel Soft blanket/teddy	Unhappy, low mood Alone, withdrawn, removing myself Fidgety but not disruptive, anxious. Never questioning or asking questions. Yes or no answers - doing just enough to avoid being noticed, unable to think. Never drawing unnecessary attention Quiet and passive, compliant Easily bullied	 Lap/Shoulder Pads Playing with lego or play-doh Give me small repetitive things to do Tell me I'm safe, spend some quiet time with you Hot chocolate and a crunchy biscuit Deep breathing Swinging Soft blanket & TV Warm bath and a warm towel Warm pyjamas

Source: Beacon House Therapeutic Services & Trauma Team, 2019

Activities to Support Regulation, Connection and Repair

If you are the caregiver of a child who has experienced trauma and attachment disruption, you know how out of control it can feel for both you and your child when they are dysregulated and either over or under aroused (also known as *hyper aroused* or *hypo aroused*). Behaviors and emotions can get big and messy, which is challenging for everyone. While there is no right or wrong way to support your child during these times, there are some helpful tools you may consider when figuring out how to help your child feel more in control of their body, behaviors and feelings when they are struggling.

A helpful way to start, can be to identify a list of activities you and your child can engage in to help calm their brain stem and bring them out of a state of fight/flight/freeze/collapse. Some examples of these activities are:

- Rhythmic activities such as dancing, drumming or singing
- Walking, running or jumping
- Jumping on a trampoline or bouncing/rolling on an exercise ball
- Breathing together
- Rocking
- Chewing crunchy or chewy snacks

- Therapeutic massage
- Using a weighted blanket
- Tossing or rolling a ball back and forth

Additionally, using this helpful framework can provide some structure when you are determining what best may help you and your child in any given moment:

- The Three R's

Dr. Bruce Perry, a trauma clinician and researcher has developed a helpful tool to support a child when they are having a difficult time to bring their thinking and learning brain back online by first helping to regulate and calm their brainstem.

Regulate	—>	Relate	—>	Reason
First, we help the child regulate, feel calm, safe and loved. We can use a variety of helpful regulation tools depending on what is most helpful for the child.		Next, we help the child by connecting with them in compassionate, attuned and validating ways. We may say things like, “I can see how upset you are right now” or “Your body is showing me that this is really tricky/tough for you”.		Third, we can help the child to learn and reflect about the challenge and try to solve it together when you are both calm, regulated and connected.
We all do best with learning, reflecting and talking when we are regulated and feeling connected to a safe person.				

Resources:

- MN ADOPT HELP program, www.mnadopt.org/help
- Beacon House: <https://beaconhouse.org.uk/useful-resources/>
- Attachment Regulation and Competency resources: <https://arcframework.org/resources-for-parents-and-caregivers/>
- **Book:** *The Body Keeps the Score*, Bessel van der Kolk

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Mariah Rooney, LICSW, RYT is a clinical social worker and specializes in treating the complex challenges that arise as a result of traumatic stress, attachment trauma, intergenerational trauma, and dissociation. Her clinical experience includes work with children, adolescents and adults in outpatient, community, hospital and specialty care settings. She was a fellow at the Trauma Center in Boston, MA where she received extensive training in treating individuals and families of all ages with histories of complex trauma. Mariah is deeply committed to examining the intersections of social justice, trauma and mental health and participating in efforts to decolonize mental healthcare and increase access to anti-oppressive healing spaces.