



THE BRAIN, CHALLENGING BEHAVIOUR, AND THE IMPORTANCE OF PLAY

Our brains develop along a sequential timeline, becoming more and more complex as it grows. The lower, less complex areas of the brain develop in infancy. The 'thinking' area of the brain develops into later childhood and beyond. All the information being processed by your child's brain is being filtered along the same pathway, from the lower brain regions through to the thinking part of the brain.

	BRAIN AREA	KEY FUNCTION	SPECIFIC FUNCTIONS	KEY QUESTION
0-18m	Brainstem	Sensing part	<ul style="list-style-type: none">• heart rate• breathing• body temperature• blood pressure	Am I safe?
18m - 3y	Diencephalon/ Cerebellum	Coordinating part	<ul style="list-style-type: none">• appetite• sleep• fine motor• gross motor	Can I do this?
3-5y	Limbic System	Feeling part	<ul style="list-style-type: none">• emotions• fight/flight/freeze• seeking connection• memory	Am I loved?
5-12y	Prefrontal Cortex	Smart part	<ul style="list-style-type: none">• self control• planning• problem solving• reasoning	What can I learn from this?





Challenging behaviour can be a sign of a deeper challenge your child is experiencing. They may be having trouble communicating a need, something may be overwhelming their senses, or they may have a lagging skill that is causing frustration.

Every person has a unique Window of Tolerance. The Window of Tolerance is the amount of emotional and sensory arousal each person can tolerate before their nervous system begins to send warning signals to their brain, telling them that they are unsafe. A feeling of being unsafe can stem from something as seemingly simple as loud noise, an unfamiliar social situation, or feeling like you have no control. Your child may not even realise they feel unsafe, it's an internal, automatic feeling they have no control over.

When a child is within their Window of Tolerance, they are happy and able to engage socially with others. Their prefrontal cortex, or 'Wise Owl' brain is in charge, enabling them to think, solve problems, use self-control, focus and attend to tasks.

When a child feels they are unsafe or in danger, their 'Guard Dog brain' or 'Possum brain' takes charge. These are the lower brain regions, responsible for regulation of our bodies and our emotions

The 'Guard Dog' brain is commonly known as the fight or flight response or 'hyperarousal', and happens when the sympathetic nervous system is activated. Your child may hit, push, yell, swear, or run away.

The 'Possum' brain is commonly known as the freeze response or 'hypoarousal', and happens when the dorsal vagal system is activated. You may see your child become unresponsive, withdraw into themselves, or even go to sleep.





Some children have a stronger tendency towards feeling unsafe. This may be because they:

- have experienced trauma
- their brains are more reactive to sensory input like loud noises or bright lights
- they feel overwhelmed by lots of people around
- they have a higher need for control, routine, or predictability

In these situations, children may be more likely to show you behaviours that you may be challenged by. In these situations, paediatric specialist Dan Siegel would say your child has 'flipped their lid', meaning that they are literally unable to use the thinking part of their brain to understand your rational arguments. They are stuck in the behaving and feeling parts of their brain.

Working with children who have experienced trauma or who are neurodivergent means we often need to work through lower regions of the brain. Dr. Bruce Perry says that first we need to regulate, then relate, before we can use reason/reflection. That's what makes play so useful!

Through providing physical play options, messy play, and sensory play like playdough, painting, and sand, we provide opportunities to self-regulate. We provide a safe and contained therapeutic relationship to support your child to relate to us and use emotional reflection to tune in to your child's feeling brain. We work within play to support your child to think through creative solutions to problems, and use direct or indirect teaching to show them ways of coping with frustration. Through play we support your child to stretch out their Window of Tolerance, so they feel more confident, safe, and able to regulate through frustration and unexpected events.

