

INTRODUCTION TO TRAUMA



AND THE BRAIN
Continuum Consulting Australia PTY. LTD.

WHAT IS TRAUMA?

Trauma can be experienced by people of all ages and backgrounds. Trauma can happen at any point in an individual's life and can have an effect over a number of generations. It impacts an individual's view on both themselves and the world around them.

Each child in or out of home care, no matter if they were removed at birth or later in life, have experienced trauma.

Definitions

Trauma - An event which involves the act or threat of actual harm to an individual or others, around which feelings of fear, helplessness, or horror were present.

Developmental Trauma - The impact of early repeated abuse, neglect, separation, and adverse experiences that happen within a child's important relationships.

Simple vs Complex Trauma

Simple trauma is related to a single traumatic event. This does not make it more or less significant.

Complex trauma is related to prolonged or repeated traumatic events. These events can be of the same cause or different.

ATTACHMENT STYLES

Attachment is formed between the child and their primary caregiver starting in utero and developing throughout childhood. Attachment is described using four different styles: secure, disorganised, avoidant and, ambivalent.

Secure Attachment

The child believes and trusts that their needs will be met.

Child is secure, exploring and, happy.
Caregiver is quick to respond, sensitive, and consistent.

Disorganised Attachment

Severely confused with no strategy to have their needs met.

Child is depressed, passive, angry and non-responsive.
Caregiver may be extreme, frightened, frightening, or passive.

Avoidant Attachment

Subconsciously believes that their needs won't be met.

Child is not very explorative, and emotionally distant.
Caregiver may be distant and disengaged.

Ambivalent Attachment

Cannot rely on their needs to be met.

Child is anxious, insecure, and angry.
Caregiver may be inconsistent, sometimes sensitive, sometimes neglectful.

COMMON CAUSES OF TRAUMA



Child abuse (physical, sexual, emotional and medical).



Neglect (not meeting a child's basic needs).

Exposure to substance use whilst in utero (drugs, alcohol, tobacco).



Grief or loss of loved ones or friends.



Bullying in school.



Being a witness to or victim of violence.



War or terrorism.



THE BRAIN

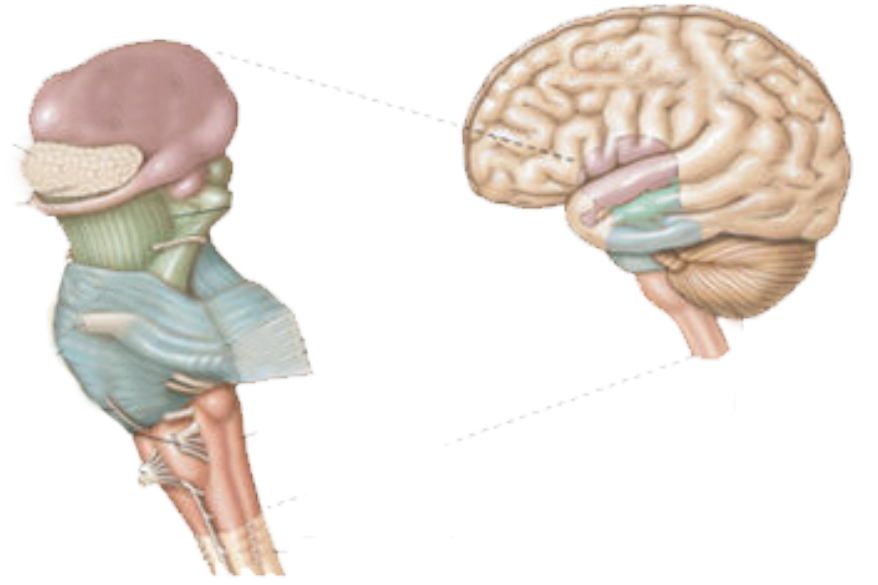
The brain develops from the bottom up.

The Brainstem

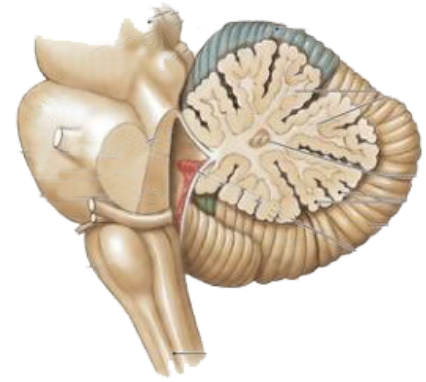
This is the first part of the brain to develop and functions fully when a human is born. This part of the brain connects the cerebellum with the spinal cord. The brainstem controls the basic needs for survival, like heart rate, breathing, sleeping and, hunger.

Indicators the brainstem has been impacted by trauma can include:

- Being born with a faster heart rate
- Infant is difficult to soothe
- Suckling difficulties
- The child struggles to build attachment



The Cerebellum



This part of the brain is located behind the brainstem and is responsible for knowing where our body is in space; posture and balance; equilibrium and muscle tone; and overall coordination. Children who have experienced trauma may be less coordinated, have weaker muscles or poor balance due to trauma's effect on the cerebellum.

The Limbic System

This is the next part in the brain to develop after the brain stem. The limbic system includes the thalamus, hypothalamus and basal ganglia, the amygdala, and the hippocampus. This part of the brain connects the top and bottom parts of the brain.

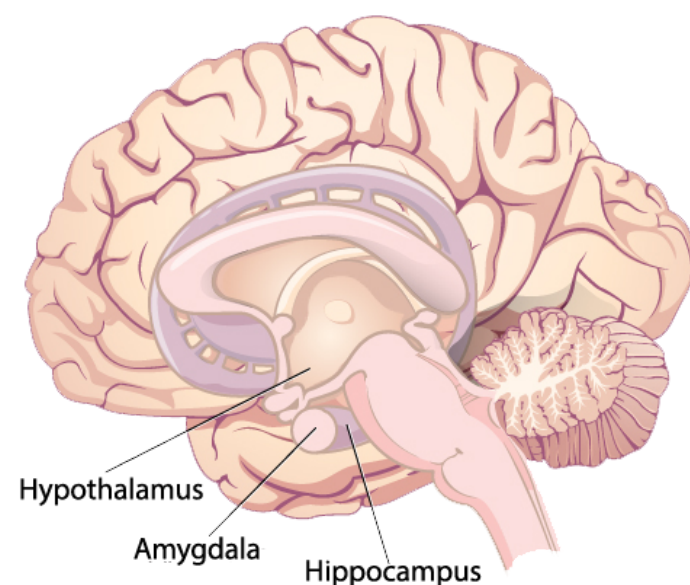
The limbic system is responsible for behavioural and emotional responses; in particular the ones needed for survival, such as feeding, reproducing and caring for young, and our fight or flight responses.

The Hippocampus and the Amygdala

The hippocampus assists the amygdala to store these significant events into memory and give context to memories such as the time and space the memory occurred and inserts it into our long-term memory. The amygdala controls the arousal that is required to respond to threat, and/or perception of situation of threat. This part of the brain develops and matures between the ages of two and three.

The amygdala matures at birth and can register fear responses in the final months before birth, meaning a child can develop a 'memory' of fear before they develop an understanding of language.

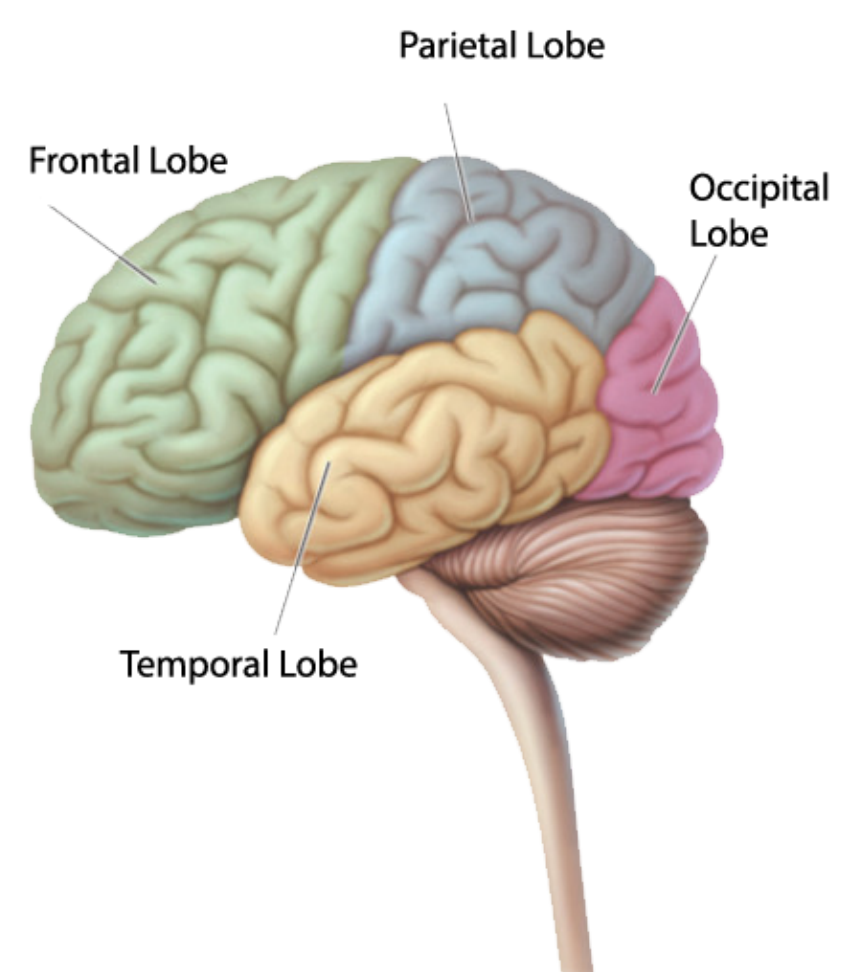
When faced with trauma triggers, the hippocampus and amygdala bond together and generalise fear responses so that the child responds to fear, as they did in the context when the original fear response occurred.



The Cerebral Cortex

The last part to develop; most of this area of the brain develops between the ages of 2 and 6 years old. This is the largest part of the brain; it is divided into 2 hemispheres, and 4 lobes. When a person is in contact with a trauma, the processes of the cerebral cortex can be temporarily unavailable to them. This area of the brain is responsible for complex thinking and action such as;

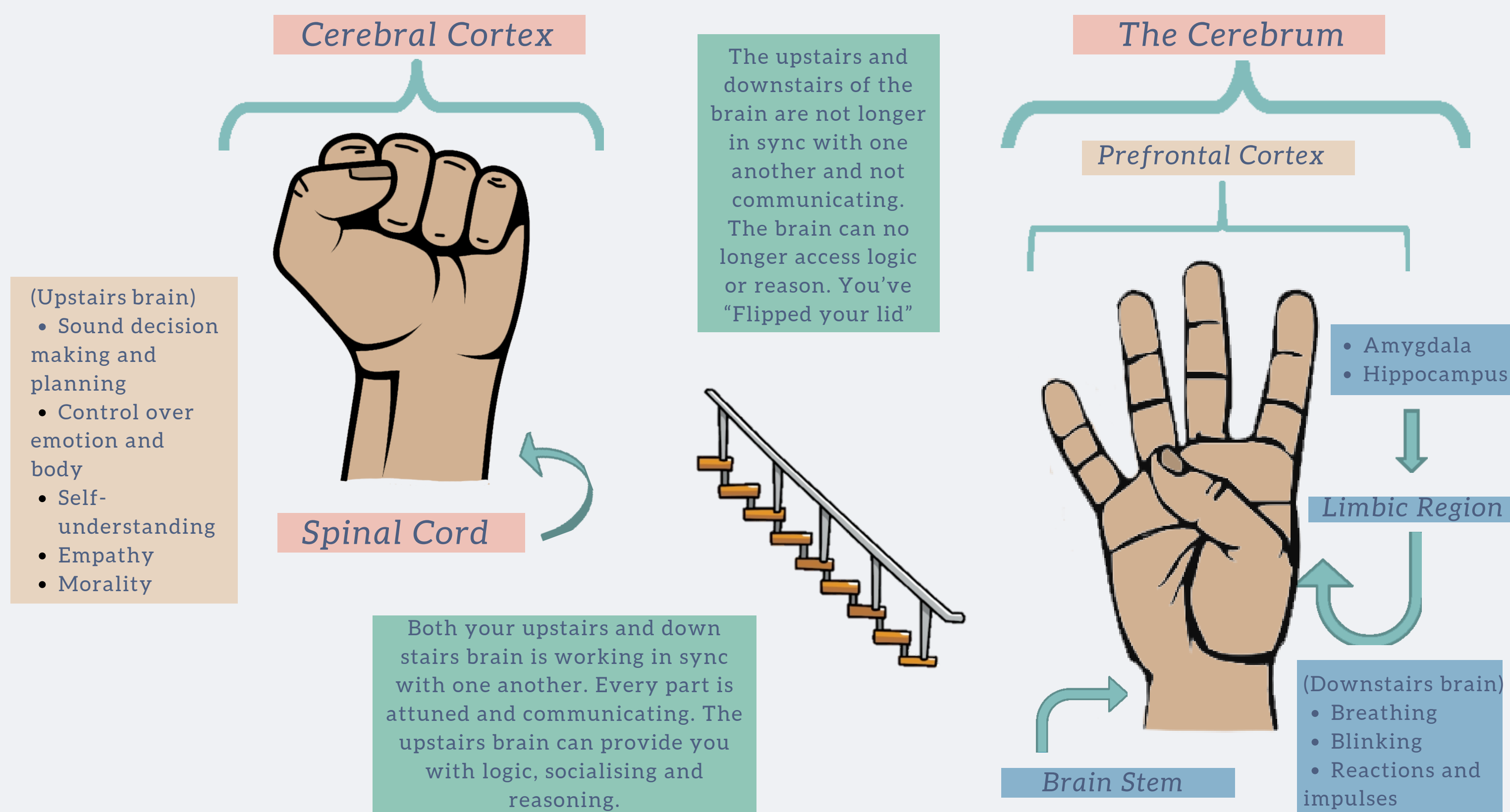
- Memory
- Attention
- Perceptual awareness
- Thought
- Language
- Consciousness



FLIP THE LID

This model representation was created by Dr Daniel Siegel and it provides an easy explanation of what happens to the brain when the amygdala senses a threat or danger. The amygdala (downstairs brain) has the capacity to completely take over, disconnecting it from the cortex (upstairs brain). This essentially means that the brain has no access to logic or reasoning during a traumatic episode.

When a child has experienced trauma, it may result in them having an overactive amygdala, meaning that they are more likely to 'flip their lid' in situations where they may be triggered by their trauma.



WHAT CAN I DO?

Provide	Provide stability and consistency as much as possible, such as predictable and clear household rules.	Make	Make sure the child feels as safe as possible in their environment. Minimise fighting, arguing, or raised voices.
Try	Try to learn what the triggers are for your child. This will help you prepare and find alternative and also help your child to understand life.	Accept	Accept the child's emotional outbursts as a form of communication, recognising these behaviours are not intentional or just to make parenting harder for you.
Teach	Teach your child specific breathing techniques which can help to calm emotions and regain control.	Help	Simple movement activities can help your child regulate their state of arousal. For example, rocking or swinging can be soothing.