

Healing from Trauma

Bringing Neuroscience & Spirituality Together eBook



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Welcome to this eBook

Welcome to my eBook “Healing from Trauma: bringing Neuroscience and Spirituality together”.

This eBook is designed to help you to understand what trauma really is.

The eBook then provides practical tools and resources to help you heal from trauma by understanding and applying Neuroscience and Neuroplasticity in your brain, body and nervous system combined with spiritual practice.

I hope the eBook provides you with a deeper understanding of how to heal from trauma and helps you on your healing journey.

Wishing you peace and light



Jackie

Why Neuroscience & Spirituality?

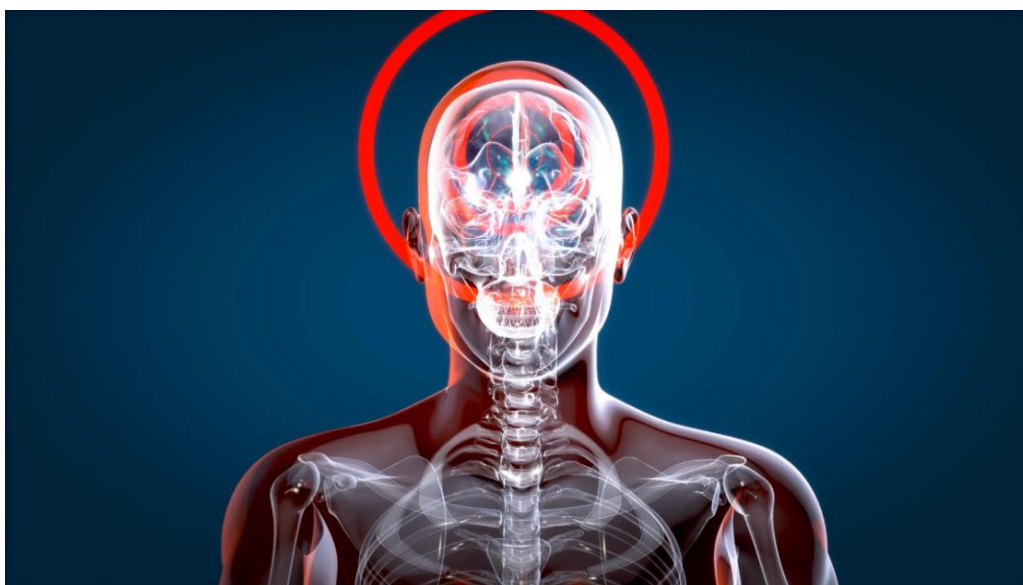


Why Neuroscience and Spirituality? Because as human beings with a mind, brain, body and nervous system we are also spiritual beings with a soul and spirit.

If we attend to our mind, brain and body we also need to attend to our soul and spirit.

The mind, body, spirit connection is vitally important in any healing process.

By end of this eBook, you will have a deeper understanding of how your brain and body operates when in trauma and also grounded, realistic methods of how to change the Neuroplasticity of your brain in a positive way.



Spiritual Alignment & Trauma

Have you ever set a goal or wanted something for yourself in a particular area of your life?

In order for that goal to manifest you need to be in energetic alignment to create what you want.

Your energetic vibration has to match what you want in order to manifest.

Trauma can take us out of spiritual and energetic alignment and stop us from creating what we want from life.

This eBook illustrates what you can do to heal from trauma and align your energetic vibration to manifest your goals.



What is Trauma?

Big “T” Trauma

Many people don't really understand trauma. It is often a misunderstood concept where people believe to be “traumatised” you must experience or witness an extreme event such as rape, sexual assault, a car accident, armed hold up, domestic violence, war or natural disaster.

These are known as big “T” traumas

While extreme events such as those mentioned can lead to being “traumatised” or Post Traumatic Stress Disorder (PTSD), other overwhelming experiences such as bullying, public ridicule, repeated emotional distress in childhood and neglect, inconsistent caregiving, harsh criticism by parents or teachers, emotional or verbal abuse may also leave you feeling threatened or harmed in some way.

Such experiences can leave you with negative emotions such as helplessness, hopelessness, powerlessness, anxiety, depression, anger or rage. Your body and brain treat these experiences in the same way as the body and brain of someone who has been assaulted.



Two people can go through the exact same experience and be impacted in different ways. It is also important what happens after a traumatic incident or event as to what the likely impacts may be.

For example, if a woman is raped and she receives appropriate treatment and trauma counselling after the rape, feels supported and cared for by those around her, there is less chance the traumatic impacts will be long lasting.

In contrast a child who is relentlessly bullied at school and parents and teachers ignore the impacts of the bullying, this child may grow up to suffer with depression, low self esteem or turn to substance abuse in order to cope with overwhelming emotions.

What is Trauma?

Small “T” Trauma

Recent research shows that people can get PTSD from what we term small “T” trauma

Small T trauma is often caused by common stressors such as:

- Loss of a loved one;
- Job termination;
- Divorce;
- Moving house;
- Work stress.

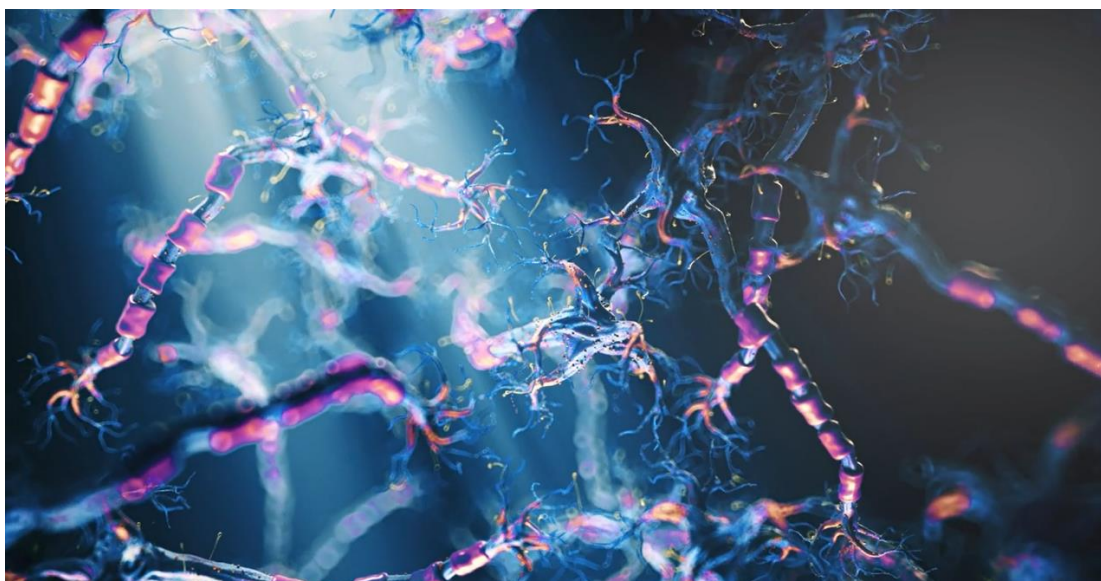
What happens in your brain and body when you are traumatized?

Most of the time your body routinely manages new information and experiences and you are not even aware of it.

However, when something out of the ordinary occurs and you are traumatised by an overwhelming event or by being repeatedly subjected to emotional distress your natural coping mechanisms can become overloaded.

Chemicals including adrenaline and cortisol are generated by the nervous system, leading our brains to encode the emotional and bodily reactions at the time of the event, with a stronger emotional charge than any other everyday event.

This overloading can result in disturbing experiences remaining frozen in your brain or being “unprocessed”. These unprocessed memories and feelings are stored in the limbic system in a “raw” and emotional form, rather than in a verbal “story” mode.

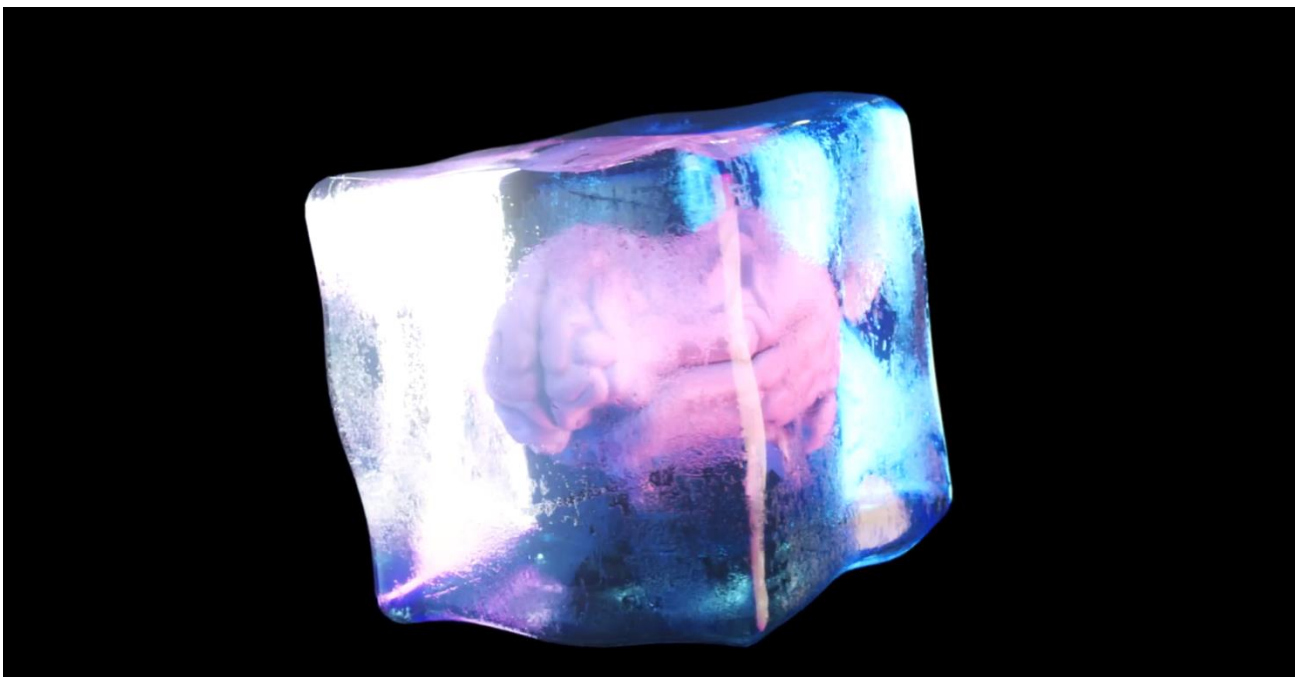


The limbic system maintains traumatic memories in an isolated memory network, associated with emotions and physical sensations, and are disconnected from the brain's cortex where we use language to store memories.

From our limbic system, traumatic memories can be continually triggered in the present when you experience events now which are similar to difficult events in the past.

Often the memory itself is long forgotten, but the painful feelings such as anxiety, panic, anger or despair are still felt in the present and can be felt in the body.

Your ability to live in the present and learn from new experiences therefore can be inhibited.



What is PTSD?

(Post Traumatic Stress Disorder)

In a previous lesson I explained what happens to our brain when we are traumatised. This can result in people getting Post Traumatic Stress Disorder, commonly known as PTSD.

If people experience or witness terrifying or life threatening events, they can develop PTSD. The event doesn't actually have to be life threatening in reality, PTSD can result by the perceived threat of danger. As mentioned before, people can also get PTSD from everyday stress and life events.

PTSD is a mental health condition and is not something to be taken lightly. The effects of PTSD can begin within days, weeks, months or years after the event or events. For someone experiencing or witnessing a series of events over a long period of time this is called complex PTSD or cPTSD.

Most people may have temporary difficulty but with time, their own resilience, self care and proper professional support, go back to living a normal life. For many people if the trauma is not dealt with, initially you may be fine and then end up with PTSD years later. PTSD can be triggered later on by a life changing event such as entering a relationship, starting a new job or having children.

PTSD can interfere with your day to day functioning so receiving effective professional treatment to deal with this condition can be really beneficial in helping you to get back to living a normal, healthy life.

In the next lesson I will discuss the symptoms of trauma and PTSD.

Trauma Survivors have symptoms instead of memories (Harvey 1990)

This depends on the individual as some trauma survivors can be plagued with overwhelming memories and flashbacks. However, many people who go to therapy to address the following symptoms often aren't aware that they are the symptoms of underlying trauma and PTSD.

Many people don't recognize that have been traumatized. I've had many clients say to me that no one has ever explained that they had trauma and PTSD. Some of the symptoms are as follows:

Depression

Irritability

Loss of interest

Numbing

Substance abuse

Eating disorders

**Generalised
anxiety**

Panic attacks

**Little or no
memories**

**Nightmares and
Flashbacks**

Hypervigilance

Mistrust

**Feeling unreal or
out of body**

**Self destructive
behaviour**

**Loss of sense of
"who I am"**

**Loss of a sense of
the future**

Hopelessness

**Shame and
worthlessness**

**Decreased
Concentration**

Insomnia

**Emotional
Overwhelm**

**Chronic pain
headaches**

Reference: Janina Fisher PhD: Flip Chart Psychoeducational
Tools for working with Trauma

Why healing from Trauma is important?

Healing from trauma is a journey not a destination



Healing from Trauma allows us to live more grounded, centred, peaceful lives and allows us to put the past (as much as is humanly possible) in the past and allows us to live in the present.

Healing from Trauma provides us with emotional and nervous system regulation and a balanced brain.

It allows us to be more energetically aligned to what we want and frees our soul and spirit.

Spirituality and Dissociation

- There can be high levels of dissociation related to spirituality;
- We are all one and all connected while dissociated to abuse;
- Sees another person as loving when in reality that person is harmful and abusive with both covert and overt abuse;
- Lack of boundaries and discernment about how they get treated and others being more important than themselves ;
- Spiritual fantasy to avoid a painful reality;
- Spiritual bypassing – spiritual people are not allowed to feel negative emotions such as anger so emotions are suppressed and a person can't be authentic.

Spirituality & Healing

While we need to attend to our brain and nervous system we also need to attend to our soul and spirit to treat trauma holistically.

That's why spiritual practice such as mindfulness, meditation, yoga, energetic healing, crystals and other modalities such as Kinesiology are important elements in healing trauma.

Using spiritual practice can be a resource in the healing of trauma. A resource in trauma therapy is something that makes you feel good.

I always say to my clients that while you are processing and working through your trauma it's good to have downtime away from trauma processing where you are engaging in activities that just make you feel good.

Taking time out for spiritual practice meditation, yoga, lying on the earth, being still or even going out and having fun and being with your own children, pets or inner child.



Understanding the basics of Neuroscience

Two brains in one



Our brain is divided into two hemispheres; the left brain and the right brain. In simple terms the left brain is responsible for logic, reason, thinking, problem solving, verbal expression, it remembers events and facts.

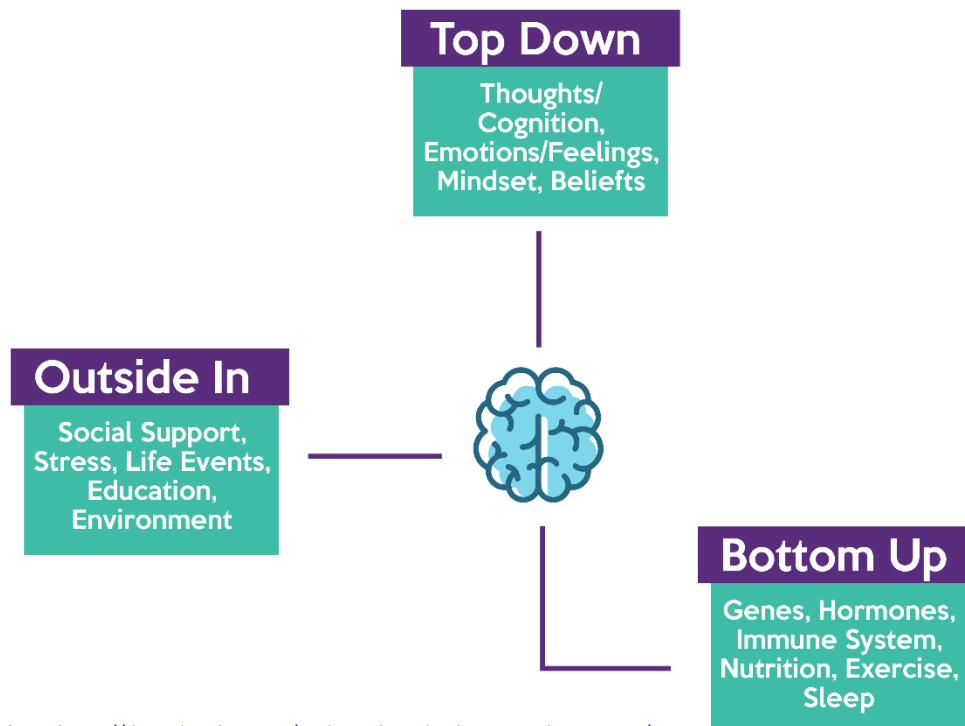
The right brain is also known as our creative brain and is the emotional part of the brain. It's non-verbal and holds our relational experiences "gut memories" and also traumatic memory is stored here.

In general terms our left brain is where we think and our right brain is where we feel.

If we go a little deeper the left brain or thinking brain is known as our frontal lobes and our right brain is known as the mammalian brain and is where the limbic system lives.

If we drill down further there is a third section to the brain known as the Reptilian Brain located in the brainstem. It is responsible for breathing, instinctive responses, heart rate and our automatic self -preserving behaviours.

Three different approaches to processing trauma



Reference: Dr Sarah McKay – <https://drsarahmckay.com/six-brain-based-solutions-to-beat-stress/>

It's important to understand the three different approaches in the brain to processing information and trauma.

The Top Down approach changes our brain from the top downwards. This is where our thoughts, cognitions, mindset, beliefs, emotions and feelings reside.

The next approach to work through trauma is the Bottom Up approach. Here we work on the bottom of the brain where our genes, hormones, nutrition, sleep, exercise and immune system are.

The outside in approach, this is where our environment impacts the front part or frontal lobes of our brain. Here external factors impact our brain. Factors such as our external environment, stress, life events, education and social support directly impact how the front lobe develops.

If we were to look at treating depression holistically (depression is often a co-morbid of trauma) we would look at treating it with all three approaches.

Co-morbid in simple terms means that conditions exist simultaneously. For example, someone who is diagnosed with PTSD or trauma commonly have symptoms of depression and anxiety as co-morbid of PTSD.

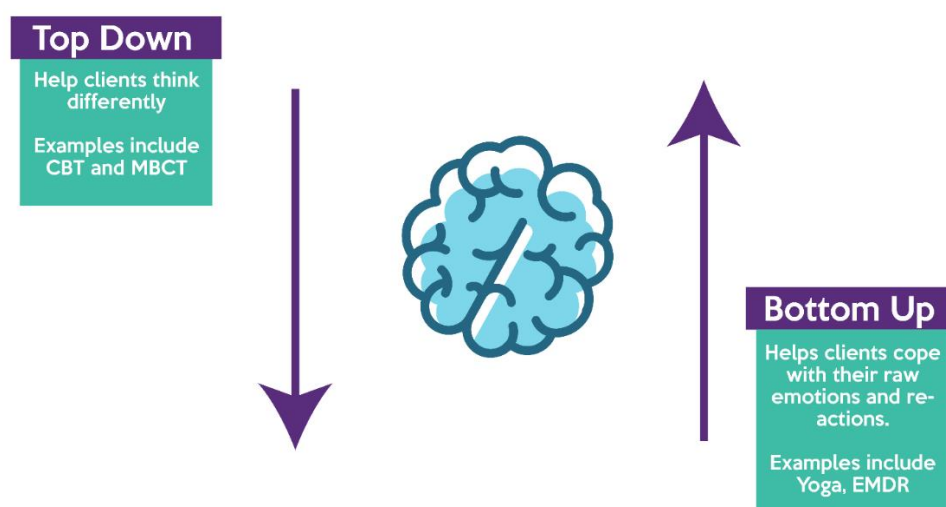
In Australia, the main type of therapy used to deal with trauma is Cognitive Behaviour Therapy known as CBT. Cognitive Behaviour Therapy adopts the approach of challenging and changing faulty thinking in order to get clients to think differently. This model is a top down approach about changing thoughts.

Top down approaches also include Mindfulness Based Cognitive Therapy. MBCT Mindfulness meditation teaches people to consciously pay attention to their thoughts and feelings without judgement. With Mindfulness it focuses on acceptance of one's thoughts and feelings in order to allow ourselves to, just be.

Both CBT and MCBT teach trauma clients how to think differently and to learn to live in the present.

Bottom Up approaches such as yoga and EMDR help trauma clients to come out of freeze responses. Therapies like Brainspotting work with the middle part of the base of the brain while Sensorimotor Psychotherapy works with the fight/fight response in the lower parts of the brain.

Bottom up approaches help clients or patients deal with their raw emotions and defense mechanisms or reactions.



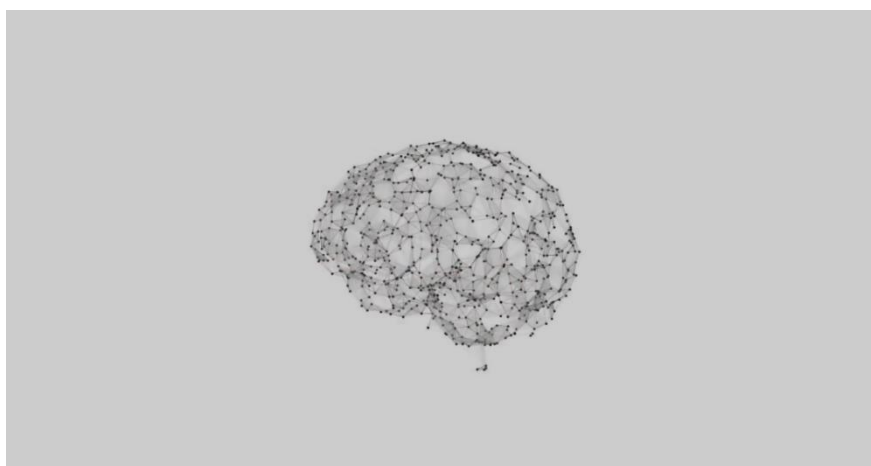
Understanding the basics of Neuroscience

One Mind, Three Brains

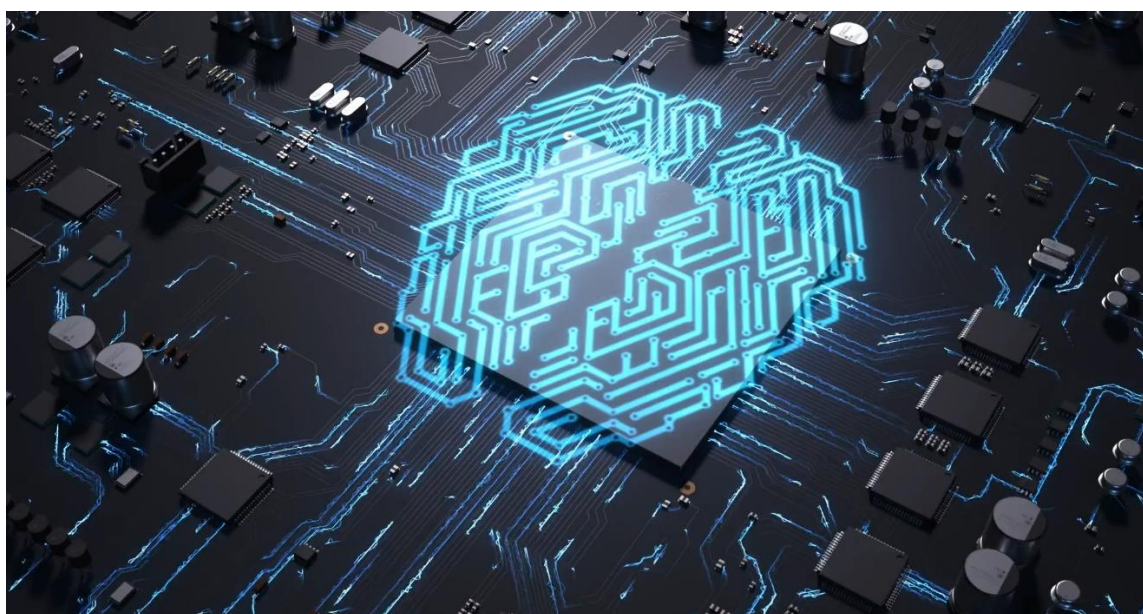
- If we work on changing our mindset which part of our brain, do we need to change?
- We have one mind but three brains;
- Our Frontal Lobes are also known as the thinking brain. The thinking brain is responsible for reasoning, problem solving, verbal expression, memory for events and facts;
- As mentioned in the previous video the Limbic system is also known as the Mammalian Brain;
- Our mammalian brain is responsible for our non verbal, emotional and relational experience, feeling and gut memories and traumatic memories;
- The third part of our brain is the Brainstem also known as the Reptilian Brain.
- Our reptilian brain is responsible for our instinctive, responses, heart rate and breathing. The **basal ganglia** are referred to as the reptilian brain. This structure is primal in nature and controls our innate and automatic self-preserving behaviours. This ensures our survival and that of our species.

The Limbic System versus the Pre-Frontal Cortex

- Early on in our foetal development we have a wired up, ready to go limbic system that sits slightly above the brain stem.
- Brain stem forms first, then the limbic system so we have a functioning brain stem and limbic system early on.
- Limbic system is a fast and parallel processor.
- Startled by the sound of a car backfiring– every sensory perception heightens and we orient to the threat, eye, ears, skin on the back of our neck;
- All of those senses send signals to the limbic centre at the same time;
- The limbic system takes sensory perception signals from the skin, audio system, the visual system, stimular ocular system and process them all at the same time;
- The limbic system is a multi tasker built for efficiency:
- It has to do all this faster than conscious thought;
- Limbic system fires up fractions of a second before conscious thought has a chance to process;
- The Limbic System is a lifesaving gift designed to keep us safe;



- The Pre Frontal Cortex activates in higher levels of thought processing;
- PFC operates in moments of problem solving, empathy, compassion, creativity, motivation, inspiration, goal setting, use of language while thought processing;
- When we are stuck in our fear it would be good to have problem solving, compassion, empathy etc. but we need to be in our PFC to do that.
- The PFC and the limbic centre have an inverse relationship;
- When the limbic centre is fired up using blood, glucose and oxygen it inhibits the resources in the front of the brain;
- The Limbic Centre turns off our easy capacity to use what resources are in our PFC that can help us get out of the situation.



- We don't come out of the womb with a fully wired PFC;
- The PFC isn't even a contender of the efficiency of the limbic system until we are in our early twenties;
- Our PFC isn't fully developed until we are 25;
- Toddler's tantrums and teenage years operate predominantly from the limbic system;
- The PFC has the capacity to down regulate the limbic centre with delayed gratification, patience, understanding and empathy but it's not fully wired up for almost a quarter of a century;

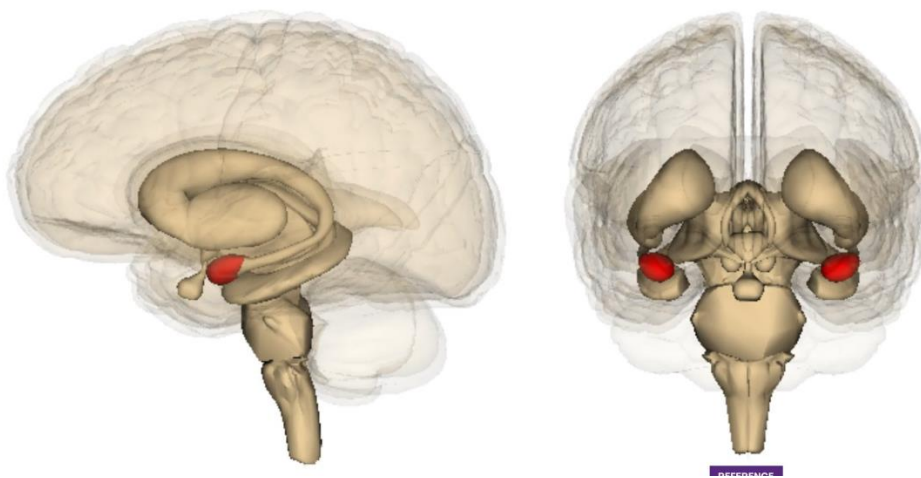
- Doesn't mean it's not functioning – it just means it's not functioning at its full maturity until about 25 years old;
- In the Spiritual and Psychological realms, we are often told to change our thoughts – Trauma therapists down regulate your limbic system so you can change your thoughts;
- Individuals who have experienced a lot of trauma and have PTSD often have an under active Pre frontal cortex.

What parts of the brain get activated in Trauma?

The simple answer is depending on the situation and the individual concerned all parts of the brain can be activated during and after trauma. In the next lesson I will cover specific parts of the brain that play a significant role in how trauma plays out neurobiologically. I will explain the role of the Amygdala, Hippocampus, Thalamus and Hypothalamus and how they relate to trauma and PTSD.

The Amygdala

The Amygdala is one of two almond-shaped clusters of nuclei located deep and medially within the temporal lobes of the brain in complex vertebrates, including humans. Shown in research to perform a primary role in the processing of memory, decision making and emotional responses (including fear, anxiety, and aggression), the amygdalae are considered part of the limbic system.

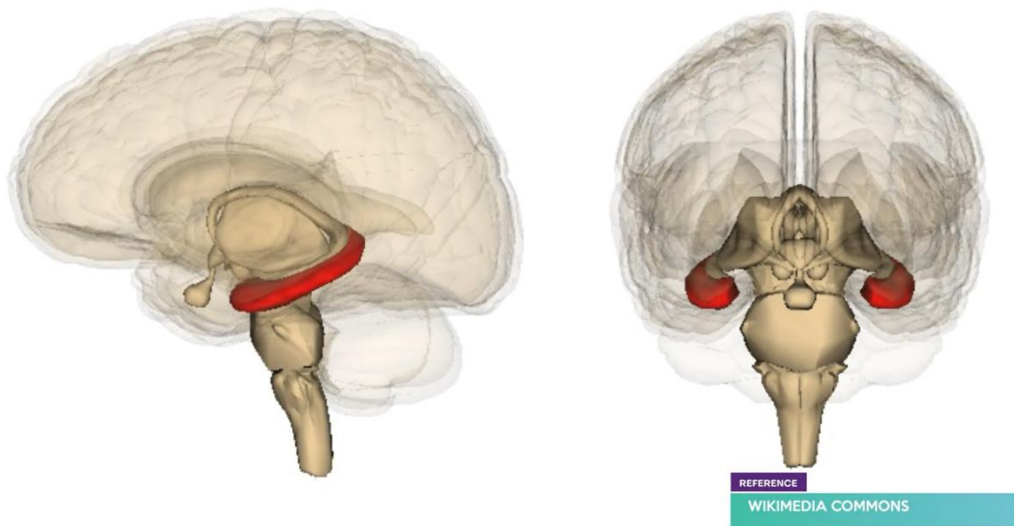


The amygdala is known as the emotional memory centre. When we are experiencing fear, the Amygdala is firing like a smoke detector warning us that we are in danger now even when we aren't really in danger.

A good example of those operating from a fear response in their Amygdala was panic buying of toilet paper and other staple items during the pandemic. These people most likely have a very activated limbic system and their Amygdala is firing on all cylinders so they cannot bring the rational part of their brain online (the pre frontal cortex). When you learn how to down regulate and soothe your Amygdala then your pre frontal cortex can operate more fully. This then allows you to think and rationalise without your Amygdala taking over.

The Hippocampus

The Hippocampus is a small organ located within the brain's medial temporal lobe and forms an important part of the limbic system, the region that regulates emotions. It is associated mainly with memory, in particular long-term memory.



This part of the brain also plays an important role in spatial memory. This means the what, when and where qualities of an experience.

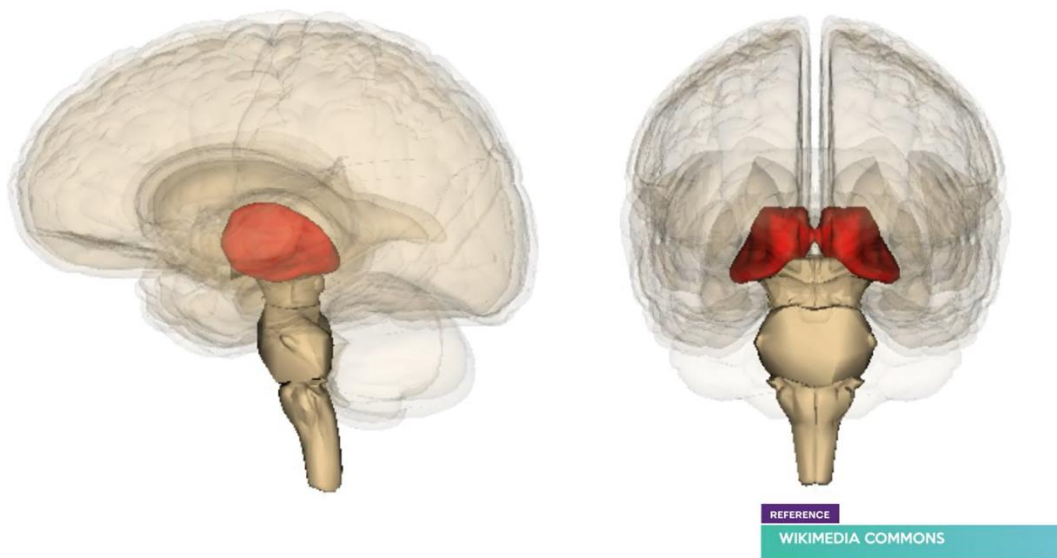
For someone who has experienced trauma the hippocampus holds the traumatic memory. The Hippocampus stores the memory and a person who is traumatised or suffering from PTSD will repeatedly retrieve that memory, unable to let it go. It's like repeatedly telling the same story over and over again. When the Hippocampus is comprised because of trauma this is what happens. The memory is recalled repeatedly when triggered in the present.

The Thalamus

The Thalamus is a large mass of grey matter in the dorsal part of the diencephalon of the brain with several functions such as relaying of sensory signals, including motor signals to the cerebral cortex, and the regulation of consciousness, sleep, and alertness.

It regulates slow wave sleep cycles and works in co-ordination with the activity of the Hippocampus.

Working together with the Hippocampus, the Thalamus has a major function in language and spatial memory essential for episodic memory.



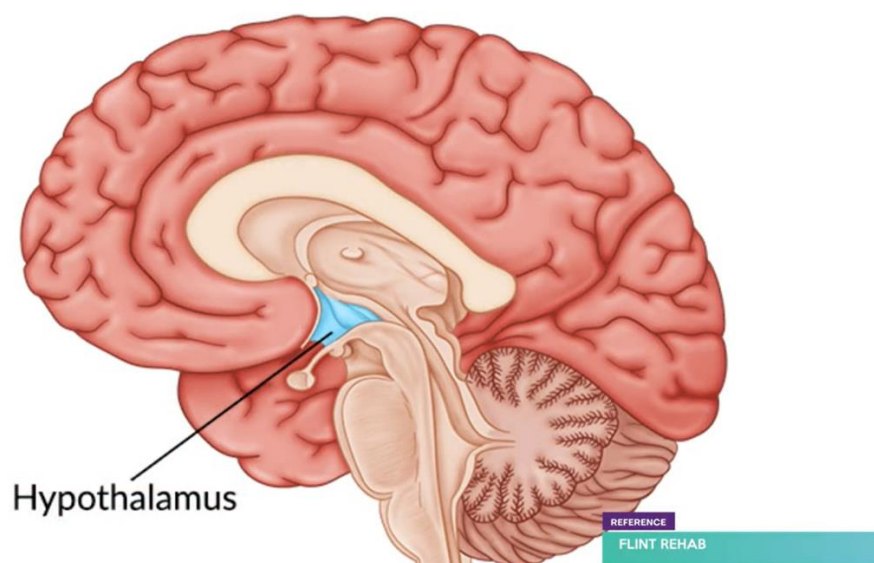
What I see in many of my clients is initially they have limited ability to find language for their traumatic experiences. Usually after 6 months of EMDR Therapy (Eye Movement Desensitization & Reprocessing their ability to language and describe their experiences more clearly, starts to come online.

Many parts of the brain are affected by trauma and I will go into greater detail in later videos about what happens in our bodies when certain parts of the brain like the Amygdala, Hippocampus and Thalamus are triggered in trauma. I will also explain what EMDR Therapy is later on in the eBook.

The Hypothalamus

The Hypothalamus is a gland in your brain responsible for producing both releasing and restricting hormones. It links the nervous system to the endocrine system via the pituitary gland. It is located below the Thalamus and above the brain stem.

Hormones such as Dopamine are produced in the Hypothalamus.



It is closely linked to the Amygdala, Hippocampus and Cingular Cortex and leads to our emotional responsiveness detecting changes from both internal and external environments.

It regulates our emotional responses, sexual behaviours, body temperature, controls our appetite, monitors blood pressure and our blood sugar levels to name a few of its functions. It takes in sensory signals from smell, taste, visual and body impulses.

To bring all of this together to explain how these parts of the brain operate when someone is in trauma let's look at a specific example.

- There is a young boy who loves puppies. He doesn't have his own dog but loves going next door to play with his neighbour's puppy. He gets so excited every day, after school, when he plays with his puppy friend named Tonka;
- One day on his way home from school he encounters two dogs fighting. He's only five and just started school. He steps in and tries to help the lady whose dog is being attacked. He gets badly bitten, attempting to pull the dogs apart and his hand is bleeding. His hand hurts and he's in a great deal of physical pain.
- He is also traumatised by seeing the two dogs fighting. It doesn't fit the picture of his next door neighbour's loving, friendly puppy Tonka;
- Eventually, a crowd gathers and a few people help the lady with the smaller dog and stop the dog fight. A kind lady checks his hand and wraps his hand in a scarf she is wearing to stop the bleeding. He is not far from home so she walks him home and hands him over to his Mum;
- His Mum takes him to the emergency department at the local hospital. He needs ten stitches in his hand. He is shaken and in shock but after a few hours he feels calmer and is ok;
- Now this incident has changed his Neuroplasticity from excitement and happiness towards the puppy Tonka next door to fear and trepidation;
- Much to his parent's sadness he stops playing with the puppy next door. He develops a strong fear of any dog, big or small;
- He tugs on his Mum's hand to cross the street if he sees any dog. It's sad now because he doesn't want to be around any dogs.
- So, now what's happening in this child's brain every time he sees a dog?
- His Amygdala is firing in fear like a smoke detector I spoke in a previous lesson and his limbic system is highly activated;
- His Hippocampus retrieves the memory of being bitten in the dog attack;
- His Thalamus is activated sending sensory signals to his cerebral cortex affecting his consciousness and sleep cycles. He has episodic memories about being injured in the dog fight.

How our Limbic System Operates...The Body

- When there is a fear or threat response the Amygdala and Hippocampus engage together and evoke the experience of threat and fear;
- The body then mobilises to address the threat;
- The Hypothalamus gets involved and takes this information translating it into a hormonal shift in the body;
- HPA axis is then activated, Hypothalamus, Pituitary & Adrenals are now all engaged;
- The body is now in line with the brain in fear;
- When we are not in fear the midline of our body and heartrate are regulated;
- When in fear the midline of our body redirects blood, oxygen and glucose to our limbs and muscle mass with a jolt of fear:
- Brain perceives we're supposed to fight or flee; freeze is a different response;
- Adrenaline and Cortisol are released and our nervous system encodes the experience.



Fight, Flight, Freeze – Brain Body Response

- Fight, Flight (hyperarousal) come from one part of our brain while a freeze response comes from another part of our brain;
- Fight & Flight (flee) comes from the mammalian (limbic) part of the brain;
- Freeze (hypoarousal) comes from the Reptilian part of the brain- brain stem functioning – Vagus Nerve (runs down neck & spinal column);
- The Vagus Nerve: It is the tenth cranial nerve, extending from its origin in the brainstem through the neck and the thorax down to the abdomen.
- Vagus nerve response helps us to find a spectrum of appropriate nervous system arousal for any situation.
- When the freeze response is present, we have less ability to tolerate stress;



- Some freeze responses can render you paralyzed or make you highly dissociative;
- The body, brain and nervous system in order to move us out of freeze automatically moves us into fight, flight or both;
- We need to learn how to down regulate our nervous systems to a state where we can function in a balanced, neutral place from all these three responses.
- Healing from a Neuroscientific point of view is a three step process;
- Firstly, learning how to soothe & down regulate our limbic centre in particular our amygdala;
- Secondly, bringing more resources to the front part of our brains (PFC);
- Thirdly working with our brain stem, nervous system and bringing the body into the healing process ie. working somatically.
- Somatic means relating to the body as distinct from the mind.

Let's use the example of the five year old boy and his experience with his puppy friend Tonka who lives next door and the dog attack.

Initially this child's Neuroplastic experience was positive. He was excited and happy to play with the puppy so his neuroplasticity was positive for his mind, body and spirit. After the dog attack the neuroplasticity in his brain is wired with fear.

The neuroplasticity in our brain can be wired either positively or negatively. There can be two very different outcomes and states of learning and they are stored very differently in our being. We can have a positive learning from a negative experience and therefore a positive outcome.

Fear also creates learning but with a negative outcome such as with the dog attack. Because of that negative experience the boy's neuroplasticity is now wired in fear that dogs will harm him.

He takes this into adult hood and every time he sees a dog his Hippocampus is retrieving that memory, his amygdala is firing in fear and his Thalamus and

Hypothalamus are affecting his spatial memory, language and motor skills. They are sending sensory signals to his brain and body.

His brain and body are responding as though what happened when he was five is still happening in the here and now. This is how the brain and body operate when we are in trauma.

As mentioned in a previous lesson the boy's HPA axis is activated and his heart rate increases, his clothes feel too tight, he is sweating, his pupils are dilated and his body is now in line with his brain that is in fear, each time he sees a dog.

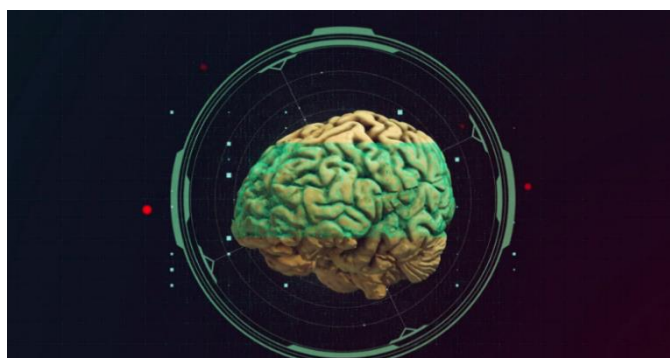
His body is flooded with adrenaline, cortisol and glucose in this fear response. His pre frontal cortex is shut down and yet in a split second he has to decide whether to flee, fight, freeze when he sees a dog.

There are two other responses known as faint and fawn. Animals when they are in danger or threatened by another animal sometimes faint and play dead so the other animal will leave them alone and move on;

Fawn is a people pleasing response and usually occurs when fight, flight and freeze responses don't work. Fawn is a very common response in people who have grown up in abusive families, situations or environments;

If you were abused as a child by Narcissistic parents, you may have become a people pleaser, be helpful and agreeable in order to survive. This is how the fawn response plays out.

People in the fawn response are more concerned with making sure others are happy no matter how badly they are treated. They often don't know how to take care of themselves or put themselves first. Their primary survival mode is to make sure others are happy to stay safe and survive.



How the Nervous System remains prepared for danger & helps us defend ourselves

When we are in the fight/flight response we are in our Sympathetic Nervous System. In our Sympathetic Nervous System, we can't just sit there, we have to do something. The Amygdala fires, there is an adrenaline rush, our hearts are racing, we are in physical exertion, heavy breathing and exhaling. Our muscles tense with a surge of energy that prepares us for action. This response causes our frontal lobes to shut down so that we can respond faster and get into action.

This neurochemical release triggers our Parasympathetic Nervous System.

When we can't flee or fight, we go into the freeze, submit, faint or fawn response. Now we are in our Parasympathetic Nervous System. The brain recognizes that it is not safe to move so our heart rate and respiration slows down leading to physical collapse and exhaustion. We feel physically weak, may shake and tremble and there is increased gastrointestinal activity and there is no action or movement. A person can feel paralyzed in this response and have a rabbit in headlights look about them.

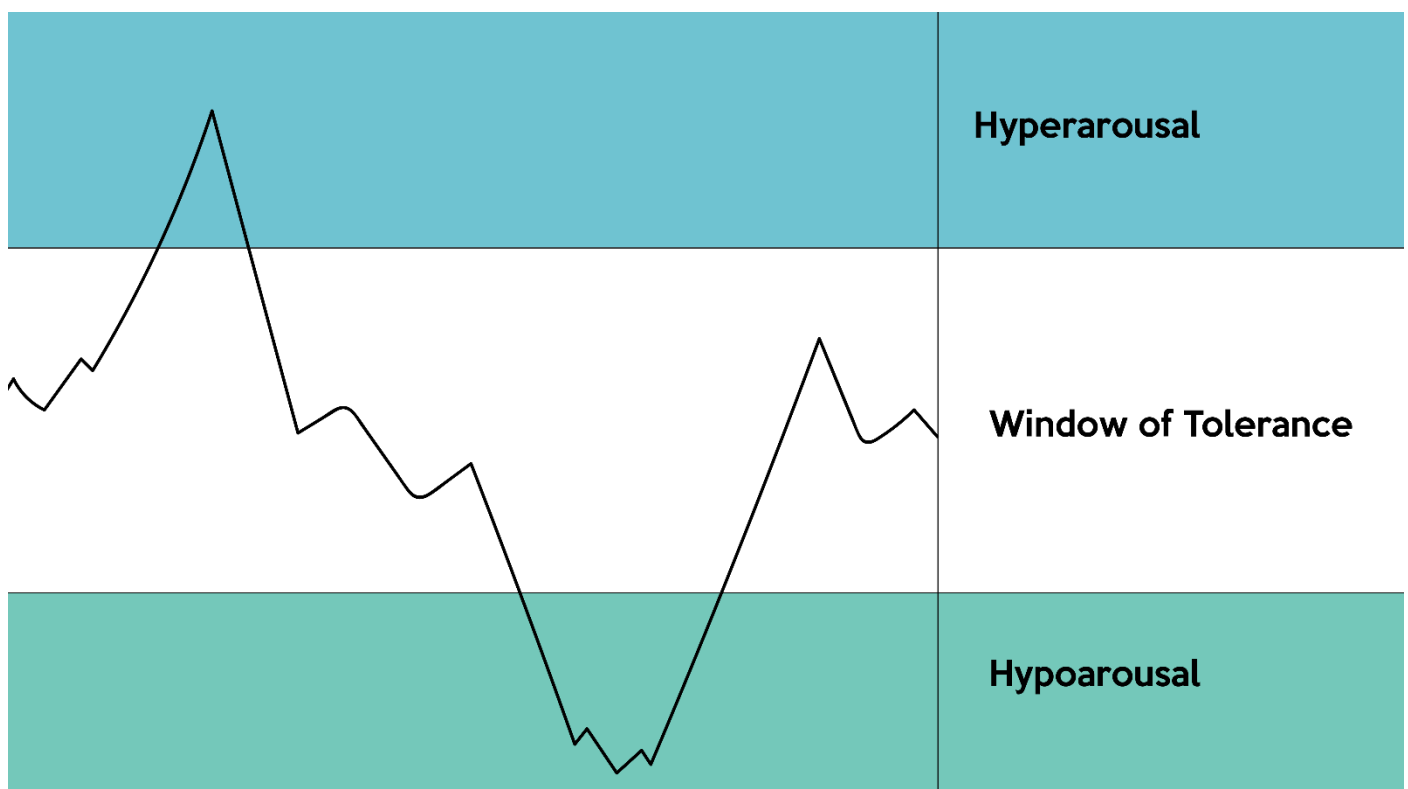


Dr Daniel Siegel, a Clinical Professor of Psychiatry at the UCLA School of Medicine coined the term the Window of Tolerance in his book Mindsight.

A dysregulated nervous system shoots up and down from a state of Hyperarousal. Hyperarousal is the state where a person is angry and over activated or triggered. It is the state of reactivity, hypervigilance or hyper alertness. In Hyperarousal a person can feel emotionally overwhelmed, anxious, panicked, defensive and their thoughts race.

The opposite end of the spectrum is Hypoarousal. This can be more easily identified as a depressive, dissociative state. When Hypoaroused people have very little feeling and are passive, dead, no energy, can't think. They have a difficult time thinking, feel disconnected and have a hard time setting boundaries and saying No. Hypoarousal is often a state of shame.

Nervous System regulation down regulates the “affect dysregulation” of trauma. Affect Dysregulation is the inability to regulate or tolerate negative emotional states associated with trauma and PTSD.



Bringing people into the window of tolerance or that middle zone in our nervous systems achieves a state of balance (the middle zone between Hyperarousal and Hypoarousal).

In the window of tolerance our feelings and reactions are more appropriate to the situation and we can respond rather than react. The person's feelings and reactions are manageable and the person can think and feel simultaneously.

It's difficult to consistently stay in the window of tolerance but what trauma therapists aim to do is keep a person there more often and for longer periods of time. This way client's learn what it is like to have a regulated nervous system and a more balanced, functioning brain.

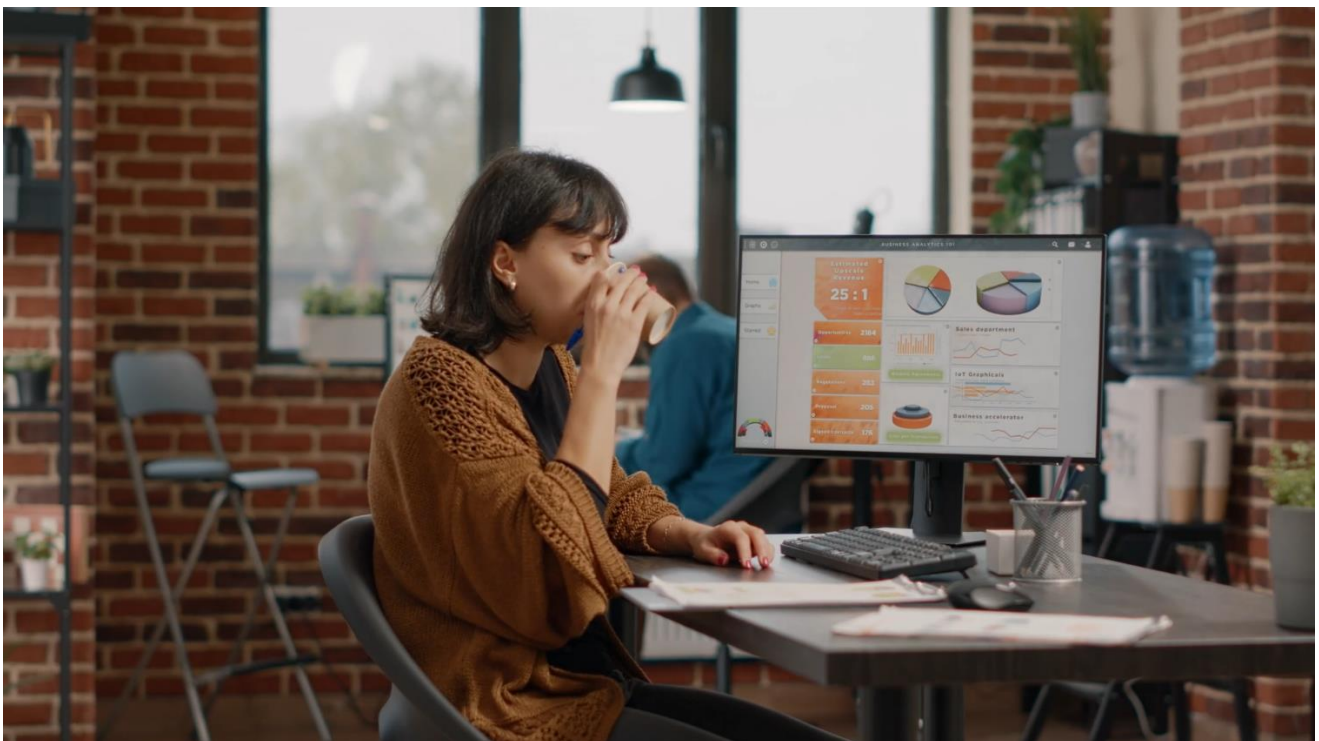
Trauma & low stress thresholds

Trauma often creates a low threshold for stress in our brains therefore making every day normal stress sometimes overwhelming and unmanageable for people still living with trauma.

This is another positive impact of down regulating the limbic system and brainstem. When these areas of the brain are calm there is less stress and every day experiences are less overwhelming.

When I'm doing EMDR with clients I aim to help them create more space in their brain through calming techniques and visualization by doing slow eye movements. This technique emulates meditation and puts the client in a meditative state to install positive beliefs. It helps slow the brain right down.

Firstly, I need to help people feel safe being calm. After client's have been working with me for a while and they feel safe being calm I can then help them to have more room and space in their brain.



This machine called a Thera Tapper which has a beat in each ear which connects the left to right hemispheres of the brain. It also has pulsers that you hold in each hand. The pulsers calm and balance out the sympathetic and parasympathetic nervous system with alternating pulses.



Habituated Stress

Gabor Mate, a medical doctor and also a world leading trauma expert says the following:

“For those habituated to high levels of internal stress since early childhood, it is the absence of stress that creates unease, evoking boredom and a sense of meaninglessness. People may become addicted to their own stress hormones, adrenalin and cortisol...To such person’s stress feels desirable, while the absence of it feels like something to be avoided.” – Gabor Mate

In my observation it’s not only stress that trauma clients miss. Those who have lived with trauma all their life and have been in traumatic relationships don’t know how to live without trauma, traumatic relationships or trauma bonding.

Being traumatized can become our identity.

People who have lived with depression and/or anxiety all their life will keep waiting for and looking for either symptom to reappear. If they are calm, they may not be able to settle in their bodies. It’s like an arm or leg is missing.

Some people have a hard time letting trauma go when it’s all they have ever known and it feels foreign to live without it. As human beings we are conditioned to go back to what is familiar.

Living with trauma, for many people is also the process of continually going back to the family where the trauma may have originated. Family' and 'familiar' both come from the Latin word 'familia', so we often go back to our family trauma because it is familiar.

That’s why trauma therapy takes work and time. It’s not simply a matter of helping people be free of PTSD symptoms. People have to learn how to live without something they may have carried all their lives.

It is a process to know that you can feel positive feelings or that you, can live life without stress, anxiety, depression and trauma. It is a process in our brain, nervous system, body and just as importantly in our soul and spirit to unlearn trauma. It is a process to replace trauma and its symptoms with healthier thoughts, feelings and body sensations. This is an integral part of what trauma therapy is all about.

You have to learn a new way to live and integrate a new way of being. This takes time and patience.

I underwent this process myself, learning who I was without trauma and forming a new identity outside of my trauma. In my experience there is so much more to life than just trauma but the healing journey for me was a process to learning how to be ok with letting my past and the trauma go. I had to learn about myself with a new identity, new way of being and a new way of living.

Sharing my own experiences of complex trauma and complex PTSD.

This story includes the topic of domestic violence. I acknowledge that this content may be difficult. I also encourage you to care for your safety and well-being during this part of the eBook.

My earliest experiences were of severe domestic violence as my father had an undiagnosed mental illness. When I was eight, my mother after years of beatings left him and took myself, my two younger siblings and my grandmother with her.

My parents because of their own histories of trauma and abuse made our home a living hell. We were subjected to every form of abuse you could imagine, physical, sexual, verbal and emotional.

My father murdered my mother and took his own life in front of my brother, sister and I. I was eight, my brother five and my sister four.

We didn't know where we were going to live or whom we were going to live with. We were wards of the state until my Maternal Scottish Grandmother got custody of the three of us.

We returned to our family home where my paternal grandparents were also living in an annexe attached to the main house.

About three months after my parent's murder/suicide my Grandmother got breast cancer and had a double mastectomy. The life slowly drained from her, and she gave up the will to live. She died when I was ten.

We then lived with my paternal grandparents for a year until my Father's sister and her husband and my cousin moved into our house supposedly to look after us but the domestic violence continued.

By the time I was twelve years old I had been raised by five personality disordered people.

I left Melbourne when I was twenty two, to escape all the violence and abuse and begin a new life in Sydney but until that point had never received any counselling to deal with all the trauma and abuse.

When my first long term adult relationship ended after 6 years, I sought counselling for the first time and was diagnosed with complex PTSD. That was the start of my own healing journey from complex trauma.

qEEG Brain Scanning

At the end of 2018 I had a qEEG brain scan at the Sydney Neurofeedback Centre. I often refer my clients to have their brains scanned to ascertain what is happening in their brains before they begin trauma therapy.

From years of experience as a trauma therapist, I can usually work out if a client has an over activated limbic centre and are emotionally flooded, or if their pre frontal cortex is under functioning or is over activated. While I can take an educated guess, having access to a client's brain scan that specifically identifies areas of their brain that are under or over functioning is very helpful to work with them to rewire their brains & help them heal from trauma.

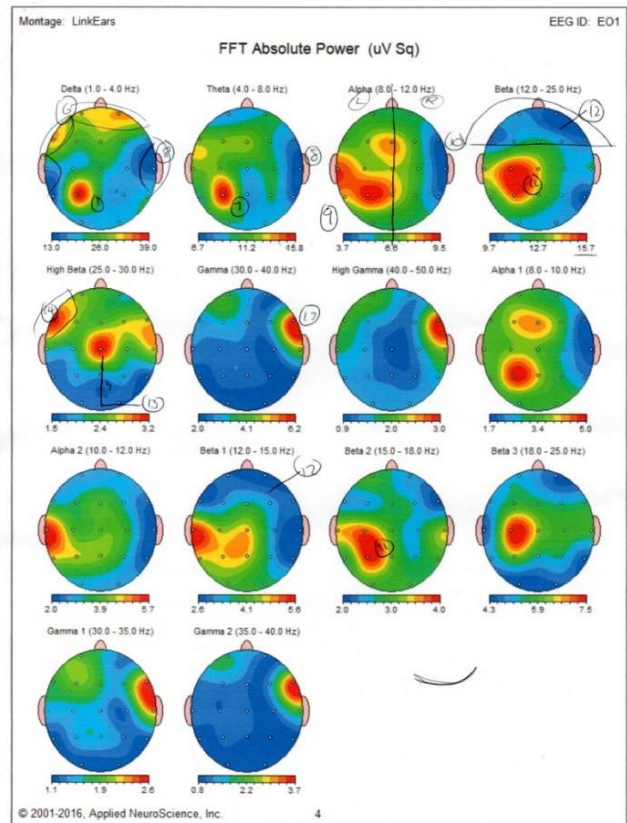
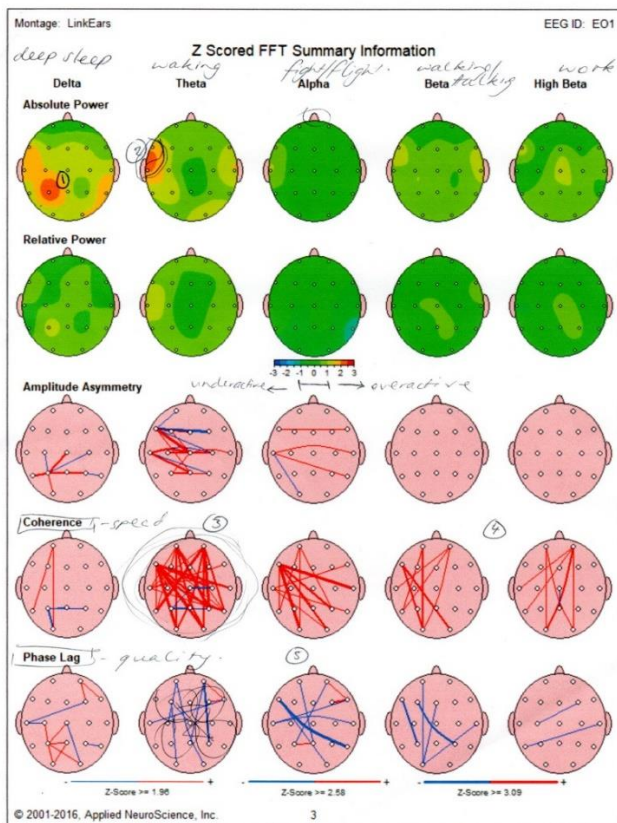
Neurofeedback is another effective treatment for trauma. At the Sydney Neurofeedback Centre, they use an advanced 19 sensor EEG cap that takes a detailed snapshot of the brain to accurately map out areas of the brain that may require treatment.

EEG is used throughout the world for many purposes in Psychology, Neurology, Peak Performance and Neurofeedback.

EEG data is interpreted and transformed into a Quantitative EEG (qEEG) which is then referred to as a Brain Scan.

I will explain all the various forms of trauma treatments and therapies in a later video.

So why am I showing you my brain scan? After sharing my own personal experiences of complex trauma, I want to show you how my brain has been impacted by both trauma and also sharing with you my own healing journey and what I have done to change the neuroplasticity in my own brain.



In the scan on the left the green areas of my brain indicate overall a healthy brain.

The first row illustrates the brain waves of Delta, Theta, Alpha, Beta and High Beta.

Diagram one indicates problems with Delta deep sleep, the second diagram with theta or waking. Alpha fight flight is very green so very healthy, Beta walking & talking is good and high Beta work is also good.

The scan on the left, in the pink areas:

- 3 indicates hyper-coherence which is poor concentration.
- 4 indicates mild gut inflammation.
- 5 indicates Rich Club Dysfunction (mild). It's not my area of expertise reading brain scans so from what I understand "rich club to mean" from a New Scientist.com article is the following

"Not all brain regions are created equal – instead, a "rich club" of 12 well-connected hubs orchestrates everything that goes on between your ears,. This

elite cabal could be what gives us consciousness, and might be involved in disorders such as schizophrenia and Alzheimer's disease".

"These 12 regions have twice the connections of other brain regions, and they're more strongly connected to each other than to other regions," says Van den Heuvel. "If we wanted to look for consciousness in the brain, I would bet on it turning out to be this rich club," he adds.

<https://www.newscientist.com/article/dn21117-the-rich-club-that-rules-your-brain/>

The brain scan on the right:

- 6 illustrates hyperactivity in verbal expression;
- Yellow indicates mild hyperactivity, orange medium hyperactivity and red severe overactivity;
- blue is under active or under functioning
- 6 indicated a slightly ADHD brain in 2018 so I have done a lot of work on my brain to slow it down and make it calmer so that I can focus and concentrate better.
- 7 shows problems with memory
- 8 Low auditory learner which means I'm not an auditory learner
- 9 my logical brain is in fight/flight. Before I started my own trauma therapy, I know my emotional brain would have been overactive as I used to get emotionally flooded.

Again, my logical brain is stressed from over thinking and number 11 indicates too much thinking and worrying.

I spend a lot of time down regulating my own limbic system and calming my brain and nervous system. Slowing my brain down to overcome the adverse affects in my brain is vitally important.

- 10 illustrates my emotional brain is underactive which is a big shift from when I started my own therapy;
- 11 Thinking and worrying;

- 12 is very interesting because it demonstrates how underactive my frontal lobe is. My pre frontal cortex is underactive. This is extremely common in people who have experienced trauma;
- 13 indicates attention and motivation problems;
- 14 Input control which is responsible for filtering the environment;
- 15 I am oversensitive to other's speech.

When you have the qEEG brain scan done you receive a detailed report like the one below. One of the team at the centre provide a detailed explanation of what is going on in your brain. A comprehensive program of Neurofeedback is then tailored to address the problem areas in your brain identified from the scan.

QEEG Brain Scan results

Findings: Jackie Nugara

Scan: 12th November 2018

Please find corresponding numbers on Brain Scan.

1. Spatial relations
2. Speech and wording finding problems (under pressure)
3. Hyper-coherence (poor concentration)
4. Mild gut inflammation
5. Rich club dysfunction (mild)
6. Hyperactivity
Verbal expression
7. Problems with memory
8. Low auditory area (not auditory learner)
9. Logical brain in fight/flight
10. Emotional brain underactive
11. Thinking and worrying
12. Frontal lobe underactive
13. Attention and motivation problems
14. Input control (filter the environment)
15. Oversensitive to others' speech

Address: Suite 203/ 40 Yeo Street, Neutral Bay 2089

Phone: (02) 8668 5864 Email: info@studiochiro.com.au www.sydneyneurofeedbackcentre.com.au

What we learn from Brain Scanning

Dr Daniel Amen is an American Psychiatrist that specializes in doing both qEEG brain scans and another type of brain scan called SPECT in his clinics located around the USA. His clinics are called the Amen Clinics.

You can watch his Tedex talk on Youtube titled “The most important lesson from 83,000 brain scans”.

The link to watch this video is:

<https://www.youtube.com/watch?v=esPRsT-lmw8&t=1s>

Dr Daniel Amen has developed a holistic approach to a number of mental health disorders and treats his patients as a whole person.

His premise is that in the medical profession all doctors and surgeons scan the organs of the patients they treat in order to diagnose. Cardiologists scan in order to diagnose heart abnormalities, Neurosurgeons do MRI brain scans in order to diagnose tumours in the brain etc. but in Psychiatry, Psychiatrists do not scan the brain of their patients in order to diagnose mental illness.

You can go to your General Practitioner (GP-doctor) and be prescribed with an anti-depressant to treat depression or anxiety medication without really understanding what is the underlying cause of the depression and anxiety.



Dr Amen has identified 7 different types of depression affecting different areas of a patient's brain. For example, is the depression being caused because of too much or too little activity in the right part of the brain, is there too much activity in the front lobes or is the frontal lobe under functioning. For someone with too much activity in the frontal lobes, with Neurofeedback a gentle direct current can be applied to the frontal lobes to ease anxiety.

The principle of how Daniel Amen works is to tailor treatments holistically with diet, exercise, supplements, EMDR, Neurofeedback etc. based on exactly what is happening in a patient's brain rather than treating symptoms generally. He works with ADHD, Autism and Alzheimer's as well.

What I have observed in clients over the years is that anti-depressants often just suppress or dull emotions or issues that have not been addressed because of childhood trauma.

That doesn't mean that medication doesn't have an important role to play in the treatment of trauma. Some people definitely need medication in line with therapy. Medication can make therapy to heal from trauma a lot easier for clients who need it.

I am not anti-medication when needed but on its own, it often doesn't address the underlying causes and issues of trauma.

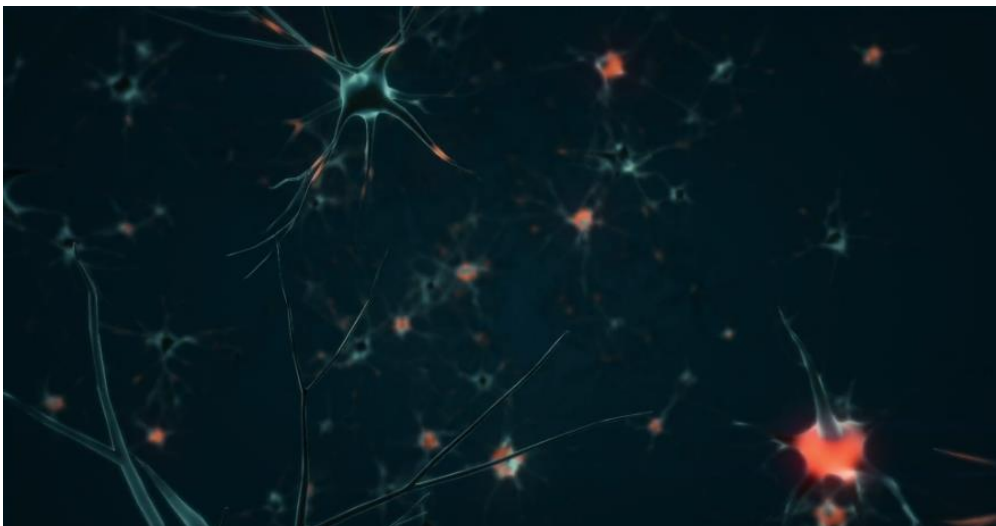
When I work with a client to treat depression with EMDR I will work emotionally with that client to target anger turned inwards and hopelessness and despair which causes depression. Targeting these three areas has led to great results in lifting depression in many of my clients.

Depression and anxiety have many roots in attachment trauma. The nature of client's relationships with family members, friends and romantic partners where their childhood trauma is being reactivated and repeated while they are in unsafe attachments can often lead to depression and anxiety.

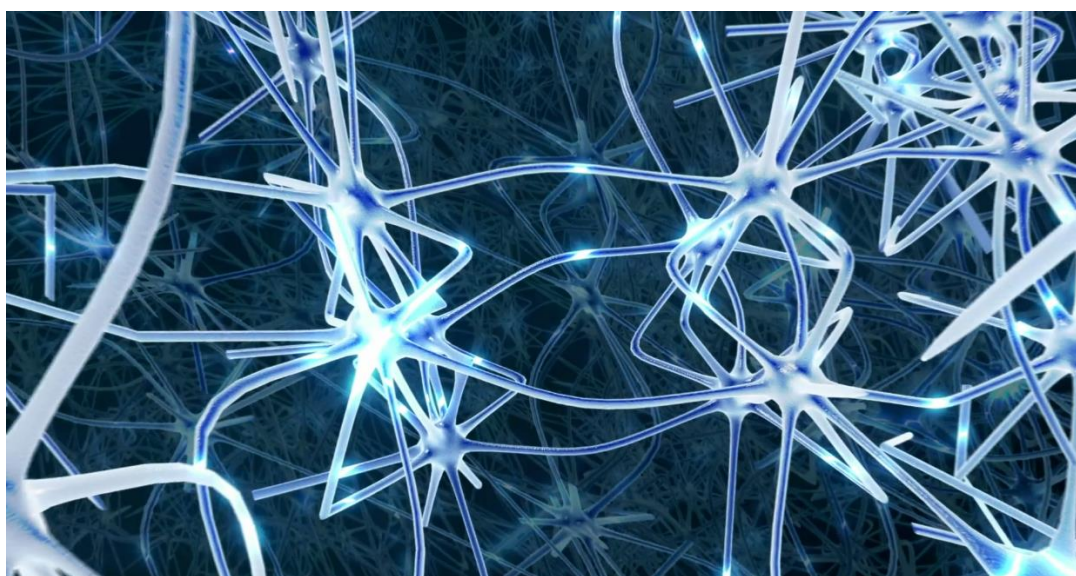
Work stress, lack of control over their lives, financial pressure and other external factors etc. can all lead to depression and anxiety. There can be many factors but from a neurobiological perspective brain scanning like qEEG and SPECT can be incredibly helpful in identifying depression and anxiety based on specific activity in the brain.

Neurons and how we think

- We have Neurons in the grey matter of the brain but also in our spinal column, organs, muscles in our Gastrointestinal tract etc;
- Highest concentration of Neurons in the brain are between 86-100 billion (number is up for debate);
- The front of our brain grows when we use it because of Neurons;
- The job of Neurons is to take information to the front of the brain either through sensory perception, thought, creation or any other impulse in the body;
- Neurons are supposed to communicate that to other brain cells through synapses.
- As a community they are supposed to give us an experience or create an effect in the body;
- Information comes in through the spiny branches called dendrites;
- Dendrites collect information in the form of an electric current;
- They collect the information and send them to the cell body known as the Soma (looks like a face)
- When enough electricity hits the Soma and it exceeds a certain threshold this cell body (Soma);
- It takes aggregate electric charge and sends it down the tail known as the Axon;
- The job of most axons is to insulate this pathway so the charge does not dissipate;
- The charge comes down the Axon and hits the end point;



- What's waiting in the gap is another Neuron and they don't touch;
- Neurotransmitters which are stored in the terminals are released;
- Little voltage gates open from that electric charge;
- Neurotransmitters flood into this space or gap;
- Dendrites on the next Neuron pick up those Neurotransmitters which are chemicals;
- Fit in as a lock in key into those terminals which open more voltage gates;
- Electric polarity shift happens and current goes though the next one;
- The more you use this network of Neurons speaking about the experience (five year old boy, puppy Tonka and dog fight);
- It's a choreography of Neurons and the more you use it Dendrites begin to grow;
- More spines begin to emerge and reach out so the density and volume of the grey matter housing this network thickens;
- If the Dendrites grow, they can pick up more signals;
- If you pick up more signals you can exceed the threshold this cell body needs more often;
- You can send a charge more frequently which means you are releasing more Neurotransmitters more frequently;
- You are strengthening the network and making it efficient;
- Every time you use a thought you strengthen it.



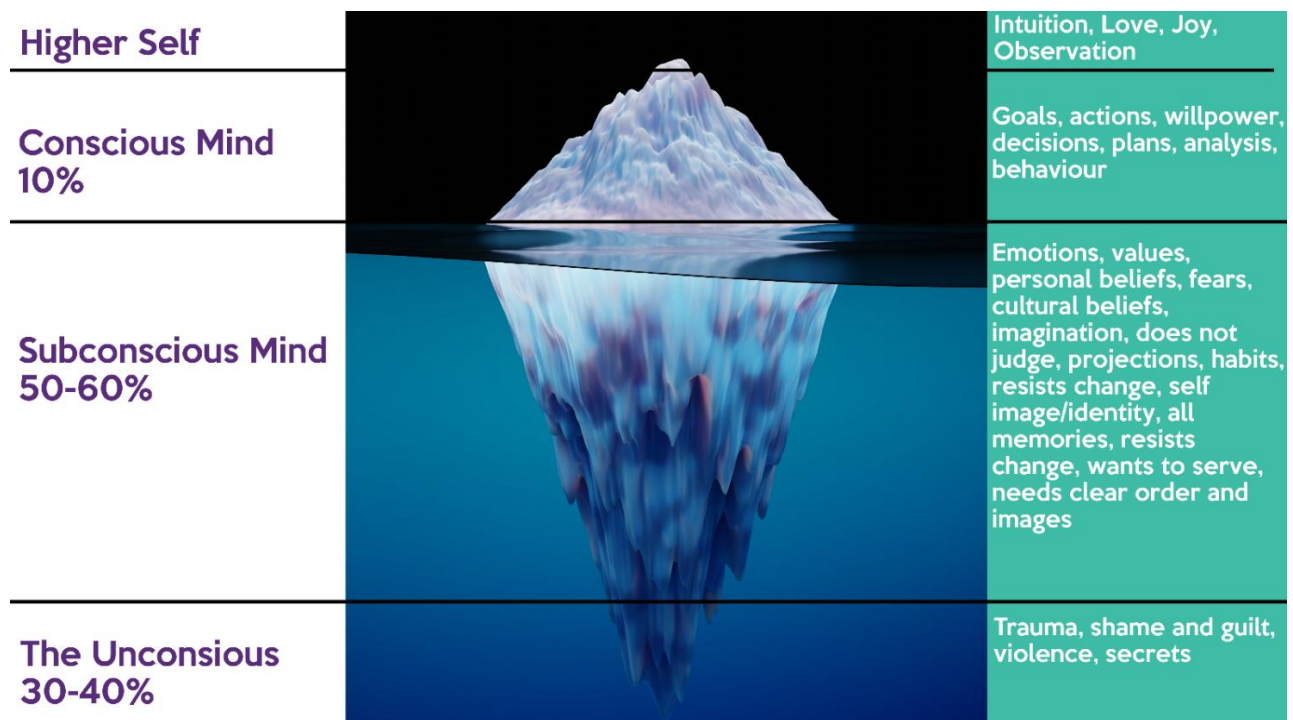
The Conscious, Unconscious and Subconscious Mind

So many of us think we are aware, conscious and awake human beings but in reality, consciousness is responsible for only ten per cent of what we are aware of.

Fifty to sixty per cent of what is going in our lives in our subconscious mind and thirty to forty per cent in unconscious mind.

What we see and experience around us from consciousness is only a tiny fraction of what needs healing in our subconscious and unconscious mind. It's what trips up many humans that they do not do work at the subconscious and unconscious levels especially around healing trauma.

From these diagrams we can see the Conscious mind or our higher self is in charge of intuition, love, joy, observation, willpower, decisions, actions, plans, goals, analysis and behaviour.



Our subconscious mind is in charge of emotions, values, personal beliefs, cultural beliefs, projections, self identity, fears, imagination, habits, all memories, needs clear orders and images, does not judge, resists change, wants to serve.

The Unconscious mind controls trauma, guilt, violence, shame and secrets.

What is difference between unconscious and subconscious?

The subconscious is that part of consciousness that is not currently in focal awareness. The unconscious mind consists of the processes in the mind that occur automatically and are not available to introspection, and include thought processes, memory, affect, and motivation.

Conscious mind

- Processes 2000 bits of information per second;
- Is anything that you are consciously aware of and paying attention to;
- Makes one decision at a time and is restricted in that it can only pay attention to a limited number of things at one time;
- Is the seat of cognizant recognition of images, thoughts, impressions, sounds etc.
- Can control the Subconscious: when it holds onto a thought; the subconscious mind accepts it as instruction or “truth” and proceeds to follow through on that instruction.

Subconscious mind

- Processes 4 billion bits of information per second;
- Doesn't "rationalise" (data in, data out);
- Functions 24/7;
- Seat of all memories, emotions, fears, behaviours, automatic responses, defences and biases;
- Directly influences who you are and what you become through this accumulation of perceptions, programming and conditioning;
- Includes imagination/creativity function and long term memory;
- Controls up to 99% of cognitive activity;
- Regulates all physiological repetitive activity including circulation, breathing, digestion etc.
- Accepts facts to be true based ONLY on one of two criteria:
 1. It is a thought handed down by the conscious mind, or
 2. It exists in the subconscious mind's current database of experiences/knowledge.
- The Subconscious mind does not reason. It is subject to the conscious mind's decisions. By receiving our choice, our subconscious mind moulds Divine Energy into the shape we want.
- But when the Conscious mind tries to do all the work, the subjective mind is never given permission to do what it is capable of.
- We never let go and let the subjective mind fulfil its role.
- There is a synergetic ebb and flow with the creative and evaluating minds.
- We use the conscious mind to pick apart the pieces, make the decisions, and then the subconscious mind puts those pieces together into a wonderful new picture.

The benefits of Spiritual Practice like Meditation and Mindfulness.

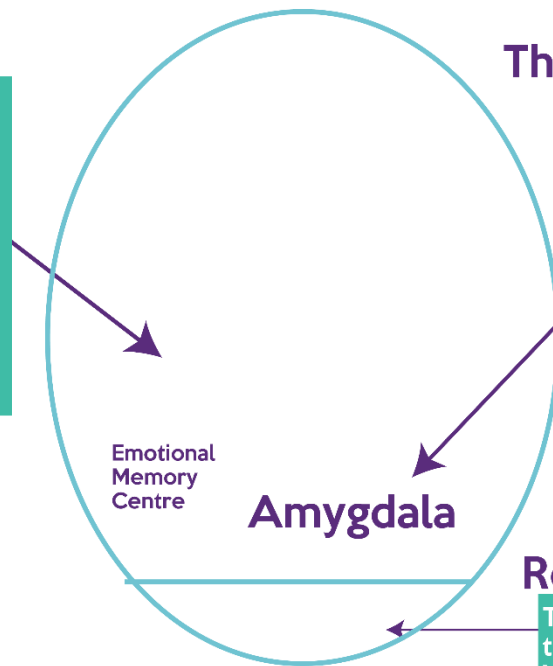
Working Memory

The Working Memory part of the brain is in charge of planning, problem-solving and learning from experience.

It helps us to tell stories have insights and draw conclusions BUT it has no direct connection to the amygdala or any effect on it.

The Noticing Brain

The Noticing Brain is responsible for awareness thoughts, emotions, sensations movements. It observes with curiosity instead of judgement. Because of its direct connection, activation of the "noticing brain" calms the amygdala and restores a sense of safety to the body.



Reptilian Brain

The Reptilian Brain responds to changes in limbic activation. When the Amygdala turns off the alarm the reptilian brain gets quiet

Reference: Janina Fisher, The Living Legacy of Trauma Flip Chart

In this diagram we can see that the working memory which is in charge of problem solving, storytelling, planning, has insights and helps us draw conclusions has no direct connection to the Amygdala or any direct effect on it.

The noticing brain which is responsible for awareness of thoughts, emotions, sensations, movements. It observes with curiosity instead of judgement. Because of its direct connections, activation of the “noticing brain” calms the Amygdala and restores a sense of safety to the body. The noticing brain has a direct connection to the Amygdala.

This is where Mindfulness comes in, just observing thoughts and emotions without judgement calms and soothes the Amygdala.

Meditation also has many positive benefits on the brain. Meditation is shown to strengthen and thicken the pre-frontal cortex. With meditation higher-order functions that reside in the frontal lobes like decision making, problem solving and concentration become stronger, while the lower region brain activities decrease.

For some people who are experiencing trauma and PTSD, meditation and mindfulness can be triggering. Depending on the individual, sitting down and trying to be calm and still and can be very activating. For those who are in a strong fight/flight response (meaning they are in their sympathetic nervous system) being quiet and calm can make a person feel really unsafe.

For some people who have been traumatised and abused being still takes them into a freeze response where they feel they can't flee or fight to get out of danger.

For people who have this experience I would suggest doing a slow walking meditation. This can help you to come slowly into your body while practicing breathing techniques to help calm anxiety. A slow walk for half an hour to an hour being out in the fresh air can do wonders for your nervous system and brain.

It's the same case with Yoga. Some Yoga poses can be very triggering for some people. If you have experienced trauma and find Yoga takes you too much into your body and is activating either stop or find a Yoga teacher who is trauma informed and can help you.

For meditation or mindfulness to be a safe spiritual practice that does not activate further trauma, I would need to have worked with that client to establish safety in the present. Safety in all areas like mind, body and spirit. Our mind and spirit may be willing but the body often doesn't co-operate. We may have a willingness to do something but our body has its own way of operating.

Our body has its own innate wisdom and will try to keep us safe which can sometimes go against what our mind and spirit is trying to achieve.

Trauma happens in the body first and it's often the last part of us to heal. When we get something in our body then we embody it. It helps us to heal in an embodied way.

When we finally feel safe in our bodies then healing from trauma is inherently possible.

The other reason why meditation and mindfulness may not work for someone experiencing trauma is that these applications may not be strong enough or fast enough to resolve complex trauma or complex PTSD.

For someone experiencing intense symptoms of trauma and PTSD trying to meditate or practice mindfulness takes too long to alleviate symptoms.

Trauma therapies like EMDR have been described as doing meditation or mindfulness on steroids. As a trauma therapist you still need to work slowly and safely with trauma clients. Specific trauma therapies can alleviate symptoms faster than just spiritual practice alone.

If a person has already been treated for trauma over a long period of time and are generally regulated, then consistent meditation and mindfulness practices can bring balance, calm and peace to a person's everyday life.



For me personally, when I first trained as a trauma therapist, I found meditation incredibly activating. I found walking meditations to be helpful. After years of trauma therapy, I can now easily sit or lie still and meditate and I really enjoy it.

Before being treated for my own trauma I experimented with modalities like Emotional Freedom Technique (EFT) or Tapping and found it was not strong enough to help me work through complex trauma. Now when I do EFT, it works well and my body, mind and spirit benefit from this practice because I have resolved a lot of the trauma in my body.

We are all individuals and trauma therapy and treatments are not a one size fits all. What works for one person does not work for another. I do not work with any of my clients in exactly the same way. They all respond to different modalities in different ways. What one person finds calming and soothing another finds triggering.

Some clients are overactivated emotionally while some are highly checked out or dissociated, some clients over think and have racing thoughts while others have a difficult time thinking or verbalising what's going on. Some people have overwhelming body sensations while others can't connect to their bodies at all or have a hard time living in their bodies.

A good trauma therapist will know how to work with a client and tailor trauma treatments to suit the individual and also adapt as their symptoms change, increase or decrease.

The different types of trauma therapies explained

There are a number of extremely effective trauma treatments available to help heal from trauma. I will briefly describe the specific trauma treatments available.

These include EMDR, Brainspotting, Somatic Experiencing, Sensorimotor Psychotherapy, CBT and Neuro Emotional Technique. Trauma therapy is not limited to these modalities but these are some of the well researched treatments.

EMDR

EMDR stands for Eye Movement Desensitisation and Reprocessing.

It was developed by Francine Shapiro in 1987 when she was walking through a park. She realized that eye movements appeared to decrease the negative emotions she was feeling at the time associated with her own distressing memories. She assumed that eye movements had a desensitizing effect, and when she experimented with this, she found that others also had the same response. She spent years developing the procedure and conducting hundreds of clinical trials to establish its efficacy because it was difficult to understand exactly how EMDR works.

In REM sleep our eyes naturally dart back and forth processing unconscious material through our dreams. EMDR has a similar function taking something our brain does naturally, EMDR Therapists use their finger, a pointer, a light bar or software that stimulates the eye movements. It's known as an Adaptive Information Processing in our brains.



What is EMDR in simple terms?

It is an entire therapy model that has been proven to be highly effective for those who have experienced trauma. EMDR therapy is founded on the basis that our emotional well-being is interwoven with our physical (somatic) state.

EMDR is established as a well-researched and effective treatment approach for not only post-traumatic stress, but many mental health issues like anxiety, depression, poor job performance, sexual dysfunction, low self-esteem, amongst others.

I attended the Evolution of Psychotherapy Conference in Anaheim, USA in 2009. I attended several workshops on trauma and attachment trauma including workshops by Francine Shapiro and the other great trauma experts in the world like Bessel Van de Kolk, Peter Levine and Dr Daniel Siegel to name a few.

I was fascinated by what they had to say and all the research they presented. They were all passionate and compassionate when it comes to treating trauma.

Everything started to make sense to me once I attended these workshops. When I viewed all the slides and scans on the brain and the nervous system and were outlining attachment trauma, I was clear that what they were describing applied to me.

No one had ever explained Trauma and PTSD to me from a neurobiological and attachment perspective before. The light bulbs went on for me and something opened up that changed the course of both my personal and professional life.

I came back to Sydney and changed therapists. I began EMDR therapy in 2010 and it completely changed my life. It helped me to decrease traumatic memory and put it in the past. I had shocking flash backs for years after my parent's murder/suicide and could remember every graphic detail. Now when I try to recall it, I do not have the same severe emotional or physical reactions to it that I used to have.

EMDR stopped my flashbacks.

Prior to doing EMDR therapy, I had done a lot of relational talk therapy which helped me a great deal in establishing safety and security with a therapist. While I was highly functioning, I was also highly dissociated and my first psychoanalytic therapist helped me with my dissociation. She also helped me to set healthy boundaries with my toxic family of origin.

I trained as an EMDR therapist in 2011 and began working with my own clients shortly after doing the training and continued to have my own EMDR therapy.

EMDR is a very powerful therapy and is highly effective in ending dissociation. Therapists need to work slowly, safely and gently as EMDR can be quite fast and a client can end up being overwhelmed if too much processing occurs too fast.

EMDR works on all levels targeting emotions, thinking and body sensations. The most important aspect is ensuring that a client feels safe and is resourced and able to tolerate what comes up when working with their trauma. The aim of EMDR and all trauma therapies is not to take clients back into the trauma more than is necessary so they end up being overwhelmed.

EMDR is effective as a Bottom Up approach as explained in an earlier video covering the 3 different approaches, top down, bottom up and outside in. EMDR is also useful in helping clients come out of a freeze response.

With many of the brain based therapies such as EMDR and Brainspotting the client doesn't have to do a lot of talking and both therapies involve bringing the body into the process where appropriate.

Some clients can't connect to their bodies at all and other's carry overwhelming body sensations due to trauma. Everyone is different and experience trauma differently so trauma therapy is not a one size fits all model.

As a therapist and also just as a human being who has experienced complex trauma, all the trauma therapies and how they work make sense to me.

Brainspotting

Brainspotting was developed by David Grand in 2003. It's based on the premise that where you look affects how you feel. Brainspotting therapists are highly attuned to their clients and this is an essential part of the therapy. The attunement between the therapist and the client is the most healing part of this therapy.

It can also be a lot gentler than EMDR and for clients who can't tolerate EMDR I use Brainspotting. With Brainspotting also known as BSP the therapist uses a pointer to find a gaze spot where the client experiences the distress the most. This is known as the activation spot. You then ask the client to identify another eye spot where they feel calmer and less distressed, maybe even happy. This is known as the resource spot.

If I am doing BSP with a client online I often ask them to find the activation and resource spot by looking around the room rather than using a pointer.

David Grand describes Brainspotting as follows: “BSP works with the deeper part of the brain, the subcortical part of the brain associated with that eye position.”

The subcortical brain is located in the middle part of the lower region of the brain where the Amygdala and limbic emotional centre resides.

“Brainspotting is based on the profound attunement of the therapist with the patient, finding a somatic cue and extinguishing it by down-regulating the Amygdala. It isn’t just PNS (Parasympathetic Nervous System) activation that is facilitated, it is homeostasis.”
- Robert Scaer, MD -The Trauma Spectrum

Brainspotting is a powerful, focused treatment method that works by identifying, processing and releasing core neurophysiological sources of emotional/body pain, trauma, dissociation and a variety of other challenging symptoms. Brainspotting is a simultaneous form of diagnosis and treatment, enhanced with Biolateral sound, which is deep, direct, and powerful yet focused and containing.

Brainspotting functions as a neurobiological tool to support the clinical healing relationship. There is no replacement for a mature, nurturing therapeutic presence and the ability to engage another suffering human in a safe and trusting relationship where they feel heard, accepted, and understood.

Brainspotting gives us a tool, within this clinical relationship, to neurobiologically locate, focus, process, and release experiences and symptoms that are typically out of reach of the conscious mind and its cognitive and language capacity.

Brainspotting works with the deep brain and the body through its direct access to the autonomic and limbic systems within the body’s central nervous system. Brainspotting is accordingly a physiological tool/treatment which has profound psychological, emotional, and physical consequences.

Somatic Experiencing

Somatic Experiencing was developed by Peter Levine PHD, he himself having experienced a traumatic motorcycle accident where he almost lost one of his legs.

Peter Levine observed that prey animals who are regularly threatened in the wild, readily recover by physically releasing the energy they accumulate during stressful events. Humans, because we have emotions such as shame, guilt, deep seated fears, judgments and are prone to overthinking or over analysing we often override the natural way the nervous system regulates itself.

The primary goal of Somatic Experiencing is to modify and minimise the trauma related stress response. The basis of Somatic Experiencing focuses on how the body stores emotion after traumatic incidents or events.

As I've explained in previous lessons the brain and nervous system often get stuck, for a myriad of reasons, processing a traumatic event. Somatic Experiencing can help people move past their stuck point.

Somatic Experiencing is also a bottom up processing modality where the client is asked to focus on internal sensations. Somatic Experiencing works with titration. Titration exposes the client to small, incremental amounts of traumatic distress to develop and strengthen the tolerance and to mitigate traumatic memory. Eventually people are then less affected by traumatic memory and overwhelming body sensations.

Peter Levine's book "Waking the Tiger" is an excellent read on somatic experiencing as a way of healing trauma and PTSD. There is a great youtube video with Peter Levine talking about how energy is mobilised in the nervous system using a slinky to demonstrate the energy shifts in the body. The youtube links are as follows:

<https://www.youtube.com/watch?v=fiq0sILHiJs&t=115s>

Trauma, Somatic Experiencing and Peter A. Levine PhD

<https://www.youtube.com/watch?v=ByalBx85iC8&t=5s>

Sensorimotor Psychotherapy

What does sensorimotor mean? It's associated with our physiology specifically related to nerves or their actions having or involving both sensory and motor functions or pathways.

Sensorimotor Psychotherapy was developed by Dr Pat Ogden. In the early 1970's when she was working as a technician and yoga/dance teacher in a short term Psychiatric Hospital. Dr Ogden was interested in the correlation between her patient's disconnection from their bodies, their physical patterns and psychological issues.

Before PTSD was included in the DSM 5 which is a diagnostic and statistical manual of mental disorders, Pat Ogden recognised that many of her patients were reliving their trauma.

Sensorimotor Psychotherapy brings somatic therapy, as I've mentioned before somatic means related to the body, especially as distinct from the mind.

Trauma happens in our bodies first and the body is often the last thing to be integrated in trauma. Once we get something in our body, we are able to embody it. That's why somatic therapy in trauma work is vitally important.

Too many people who have trauma and or PTSD can find it extremely difficult to be connected and live in their bodies. For some people the physiological sensations of trauma in their bodies can be overwhelming while others are so disconnected from their bodies, they feel no sensations at all.

Sensorimotor psychotherapy helps facilitate the processing of unassimilated sensorimotor reactions to trauma. It also helps resolve the negative effects of these reactions on cognitive and emotional experience. Sensorimotor has specific interventions to help regulate and facilitate emotional and cognitive processing. It directly targets sensorimotor processing and somatic issues to restore normal healthy functioning for trauma victims.

Integration is achieved on three levels, sensorimotor, emotional, and cognitive. Sensorimotor uses a balance of both top down and bottom up to achieve this integration.

While both Somatic Experiencing and Sensorimotor track physical sensation, Somatic Experiencing aims to avoid hyperarousal (too much nervous system arousal) while Sensorimotor Psychotherapy processing allows hyperarousal in order to move through and complete the process through sensorimotor, cognitive and emotional processing. The aim is to keep the client mindful and aware during the processing. The client is taught to modulate their sensorimotor processes even while in hyperarousal.

The sensorimotor psychotherapist mirrors the movements of the client during the sensorimotor psychotherapy session.

In this method both client and therapist are aware of the sensations they are experiencing throughout the therapy.

Janina Fisher, colleague and co-author with Pat Ogden describes sensorimotor psychotherapy as both a body and a talking therapy with slower and more paced interventions. Sensorimotor is used to transform trauma by changing the trauma response, the relationship to the symptoms, and the interpretation of them.

Sensorimotor Psychotherapy is focused on developing new responses. The thing I remember most about my training in this therapy was the topic of orienting. Once we experience trauma, we then orient towards stimuli that reinforces and confirms the narrative of the trauma. We also all have an “orienting reflex” and over time this reflex becomes automatic.

When experiencing trauma if we can develop and practice new ways of orienting in the world, based on more pleasurable responses we can dismantle that automatic orienting reflex. We can learn to move towards more pleasant, enjoyable sensations and experiences then we are changing the responses of trauma and ultimately the patterns of trauma. It also allows us to choose what we orient towards

The most important aspect of Sensorimotor Psychotherapy as distinct from Somatic Experiencing is the intention of completing the response rather than releasing or discharging the response.

“When responses are discharged, clients still have feelings and patterns are not changed (Fisher, 2010).

Janina Fisher (2010) further stated that:

“The responses have to be completed rather than discharged, This is the reason that they keep repeating and why clients often have a very wonderful experience of discharge at a therapy session followed by the feeling of being just as depressed, just as anxious, just as overwhelmed as before. It’s because discharge alone doesn’t change these patterns.”

Janina Fisher PHD

I am in total agreement with this method of working with trauma. I’m a huge believer in changing overall patterns and bringing the trauma to completion. It provides a more permanent resolution rather than temporary relief only to go back into the same pattern next time the trigger occurs.

NET - Neuro Emotional Technique

Neuro Emotional Technique known as NET is also a highly effective way of working with and clearing trauma. It involves muscle testing (similar to Kinesiology) to identify the source or original event triggering trauma in the present.

Emotions aren't logical and often get stored in the body as physical pain or stress. NET, through muscle testing, is able to track back to the original time, age, event that is causing stress or physical, emotional pain in the present.

For example, I recently had a pain in the right side of my neck causing me to have a stiff neck. There was an emotional basis to that physical pain. Once the emotion was cleared the physical pain was gone. NET is based on a chiropractic model so it can identify if the physical pain is actually physical or emotional. If physical it can be treated in a Chiropractic way.

Same with allergies. Any time I have had an allergic reaction to a certain type of food, there has been an emotion attached to the allergy to the food. Once the emotion has been cleared, I have been able to resume eating that food and the allergy is clear.

So how does this relate to trauma. NET works on our unconscious and subconscious brain and also targets the reptilian part of the brain where trauma resides by muscle testing true or false statements. If a statement is true then your muscles will hold strong and if false then your muscles will go weak.

NET is safe, effective and a natural way to instantly resolve long-standing health problems that have an emotional or trauma component.

NET operates at a deep level clearing cell memory so you don't have to keep reliving the trauma or keep living with traumatic stress.

It's a great form of therapy for keeping brain circuits, hormones and neurotransmitters balanced. Keeping your brain circuits, neurotransmitters

such as dopamine, serotonin, GABA, melatonin (just to name a few) as well as your hormones again all aid in treating trauma holistically.

NET can help identify what supplements and nutrients your body needs in order to be healthy.

We can get stuck in a traumatic memory loop. Identifying these memory loops is also done through muscle testing. This helps determine if your body is in alignment with a particular idea or belief. For example, you may say I want to live in calm and peace. Through muscle testing you can identify if your brain and body are in alignment with that belief.

If you aren't in alignment with a particular statement then you work through the emotions, events, physical aspects that are blocking you the belief from being true. When your arm muscle holds strong you then know you are in alignment with living calmly and peacefully.

The block is usually linked to an unresolved emotional or traumatic event. We also carry conditioning from our family in our systems and pick up unconscious and subconscious beliefs from others. NET can help to clear what belongs to you and what doesn't.

NET has helped me enormously in clearing my own trauma. It's very specific as a certain word may test as true while a similar word may test as false.

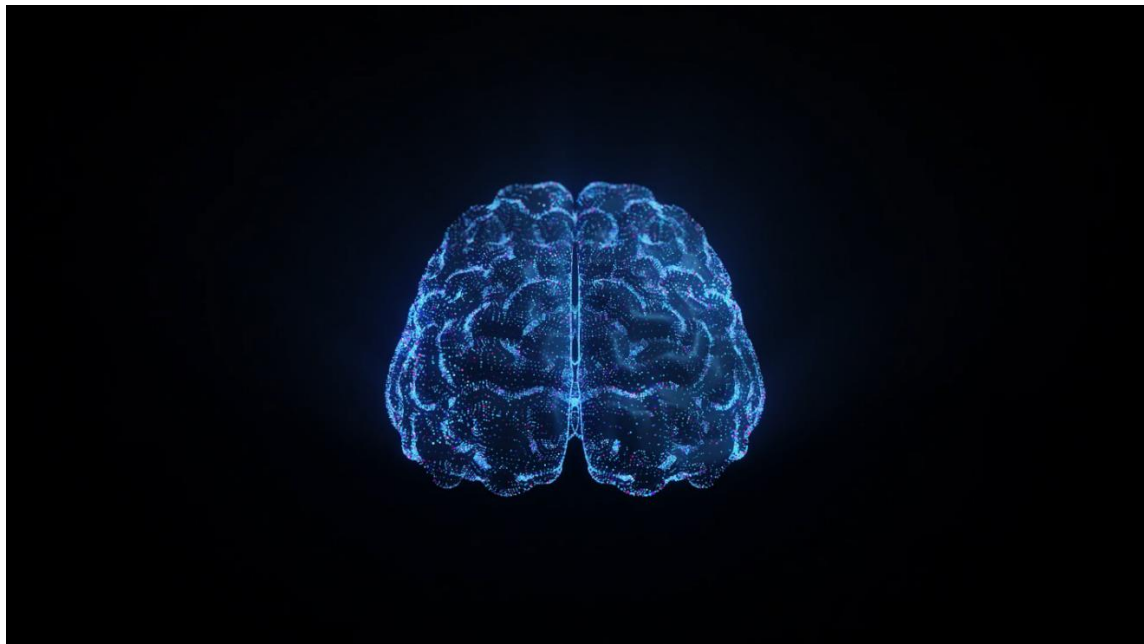
NET is great in identifying patterns, belief systems, conditioning and also intergenerational trauma and patterns.

If you have experienced trauma and your body and brain has stored that trauma as a phobia, fear, addiction, belief system, physical or emotional pain then NET is a very effective therapy for clearing these issues and stresses and changing patterns.

I take my dog Macy to my NET sessions and my NET practitioner does Spinal flow on her and she is very calm after each session. She sleeps very well for a few days after her NET sessions.

She is an emotional and sensitive being and picks up other's emotions and energy including mine. I have often been able to clear her physical ailments by working on her emotional wellbeing through NET. This has saved me a lot of visits to the vet to deal with physical issues that are emotionally based.

NET is really about going back to original traumas and events in our lives and being able to clear (at a cellular level) all the associated stress and emotions from the original time and event and all the unconscious and subconscious beliefs and patterns that are being triggered in the present.



Summation - Types of trauma therapy

There is no one size fits all when it comes to healing from trauma. My hope is that this eBook provides you with some starting points on how to begin or progress your healing journey.

You may start with one form of therapy and need to move onto another form of therapy as your healing progresses. It is a multi-layered process especially if you have experienced complex trauma. I would never recommend anyone at the start of healing from trauma, try to deal with thinking, emotions and the body simultaneously. This may become overwhelming and result in re-traumatisation.

At the core of trauma work it needs to be safe, gentle and appropriately paced. The process of being able to live safely emotionally and in your body after trauma should happen slowly and in an integrated way. A good trauma therapist will make every effort to minimise the level of re-traumatisation their clients or patients re-experience.

To reiterate I'm not the biggest fan of Cognitive Behaviour Therapy as a starting point for trauma treatment for reasons I've mentioned before. This is based on my own personal experience of healing from complex trauma and also my professional experience as a trauma psychotherapist.

To reiterate it's very difficult to do top down processing and change your thinking when your limbic system is overactive and firing in primal responses and your pre frontal cortex is underactive and shut down.

In trauma people often have an underactive pre frontal cortex. It then takes a lot of hard work to bring it online without soothing your limbic system first. While top-down approaches are also vital I would always work on the bottom up approach first before starting to focus on top down approaches and trying to

change the way you think.

CBT also does not bring the body into the equation of healing trauma and the body is a vital component in healing. The body is where our trauma is stored.

CBT and trying to change “faulty thinking” is difficult when your limbic system is firing in primal emotional reactions.

Having said that, any starting point is better than not starting at all and any help is better than no help. Working with a Psychologist can be a good place to start. You may need to learn how to safely attach to a therapist as a step first. There are many Psychologists who are trained in trauma, many Psychologists do EMDR and will understand the material I have covered in this eBook.

Just having a safe space where you can talk things through and safe attachment vitally important and CBT can fulfill that role. You may need to do this first before actively working through your trauma.



CBT and trying to change “faulty thinking” is difficult when your limbic system is firing in primal emotional reactions.

Having said that, all help in dealing with trauma is welcome. Just from my own personal experience when I couldn't change how I thought or felt about things because I had such an overactive limbic system, I felt there was something wrong with me and felt worse about myself because I couldn't get my brain to do what I needed it to do.

When I actually trained in trauma and started to understand the way the brain operated when traumatised it all started to make sense. Working on and learning to soothe my limbic system and releasing trauma from my body has certainly helped me to be able to work on my pre-frontal cortex and change the way I think more easily.

Attachment Trauma

I want to briefly talk about attachment trauma. Healing from a physical trauma like a car accident is different to healing from attachment trauma such as sexual abuse or domestic violence, bullying etc.

While both can be significant attachment trauma brings another level of required healing because our view of attachment and relationships with other humans can be severely impacted. Especially if the trauma is caused by people who are our caregivers and should have been trustworthy and safe.

I will be doing an eBook and course on understanding the neurobiology of relationships in order to create healthy attachment in relationships. This eBook and course will cover attachment trauma in greater detail. You can sign up on my website www.jackienugara.com on the stay updated tab to be advised when the eBook and course are available.

Adverse Childhood Experience or ACE's Study

Many spiritual people will know of Louise Hay and her book “You can heal your life” where she lists the metaphysical reasons for physical illness or the emotions and spiritual belief systems we have that create physical illness.

In order to heal the physical illness, we need to change the belief system and Louise Hay used affirmations to help us do this.

What is metaphysics? Metaphysics is an idea, doctrine, or posited reality outside of human sense perception. It relates to what cannot be reached through objective studies of material reality. So here we have a specific example of the spiritual translated into identifying how our emotions and belief patterns can create physical illness.

The ACE's study does the same thing but in a scientific way. The ACE's study translates how our adverse childhood experiences or traumatic experiences in childhood then translate into physical illness later in life.

The study was first conducted by Vincent J Felitti, MD in collaboration with Dr Robert Anda. They were studying obesity in the 1980's at Kaiser Permanente's San Diego Department of Preventive Medicine. The original sample size was 17,421 and further increased to include 50,000 of Kaiser Permanente (San Diego) Department of Preventive Medicine's health plan members

The article written by Vincent J. Felitti himself : The Relation Between Adverse Childhood Experiences and Adult Health: *Turning Gold into Lead is a fascinating read and the link to the article is referenced in this work book.*

There was a drop out, rate of 50% in the study of members who were counterintuitively successfully losing weight. After interviewing 286 participants

it became clear that many of these participants had experienced childhood sexual abuse and that their obesity was linked to that abuse.

The counterintuitive aspect was that, for many people, obesity was not their problem; it was their protective *solution* to problems that previously had never been discussed with anyone.

An early insight was the memorable remark of a woman who was raped at age twenty-three and gained 105 pounds in the subsequent year: “Overweight is overlooked, and that’s the way I need to be.” The contrast was striking between this statement and her desire to lose weight. Overall, we found the simultaneous presence of opposing forces to be common; many of our weight program patients were driving with one foot on the brakes and one on the gas, wanting to lose weight but fearful of change.

The concept of adverse childhood experiences refers to various traumatic events or circumstances affecting children before the age of 18 and causing mental or physical harm. There are 10 types of ACEs:

- physical abuse;
- sexual abuse;
- psychological abuse;
- physical neglect;
- psychological neglect;
- witnessing domestic abuse;
- having a close family member who misused drugs or alcohol;
- having a close family member with mental health problems;
- having a close family member who served time in prison;
- parental separation or divorce on account of relationship breakdown^[4]

The different adverse childhood experiences are not isolated and in many cases multiple ACEs impact someone at the same time.

The number of ACEs was strongly associated with adulthood high-risk health behaviours such as smoking, alcohol and drug abuse, promiscuity, and severe obesity,^[51] and correlated with ill-health including depression,^[120] heart

disease, cancer,^[56] chronic lung disease and shortened lifespan.^{[116][68] [121]} Compared to an ACE score of zero, having four adverse childhood experiences was associated with a seven-fold (700%) increase in alcoholism, a doubling of risk of being diagnosed with cancer, and a four-fold increase in emphysema; an ACE score above six was associated with a 30-fold (3000%) increase in attempted suicide.

The ACE study's results suggest that maltreatment and household dysfunction in childhood contribute to health problems decades later. These include chronic diseases—such as heart disease, cancer, stroke, and diabetes—that are the most common causes of death and disability in the United States.^[122] These findings are important because they provided a link between the effects of child maltreatment and negative effects later in life which had not been established as clearly before this study. (reference Wikipedia).

Besides physical health issues the number of ACE scores a person experiences also impacts their mental and emotional health and social behaviour as well.

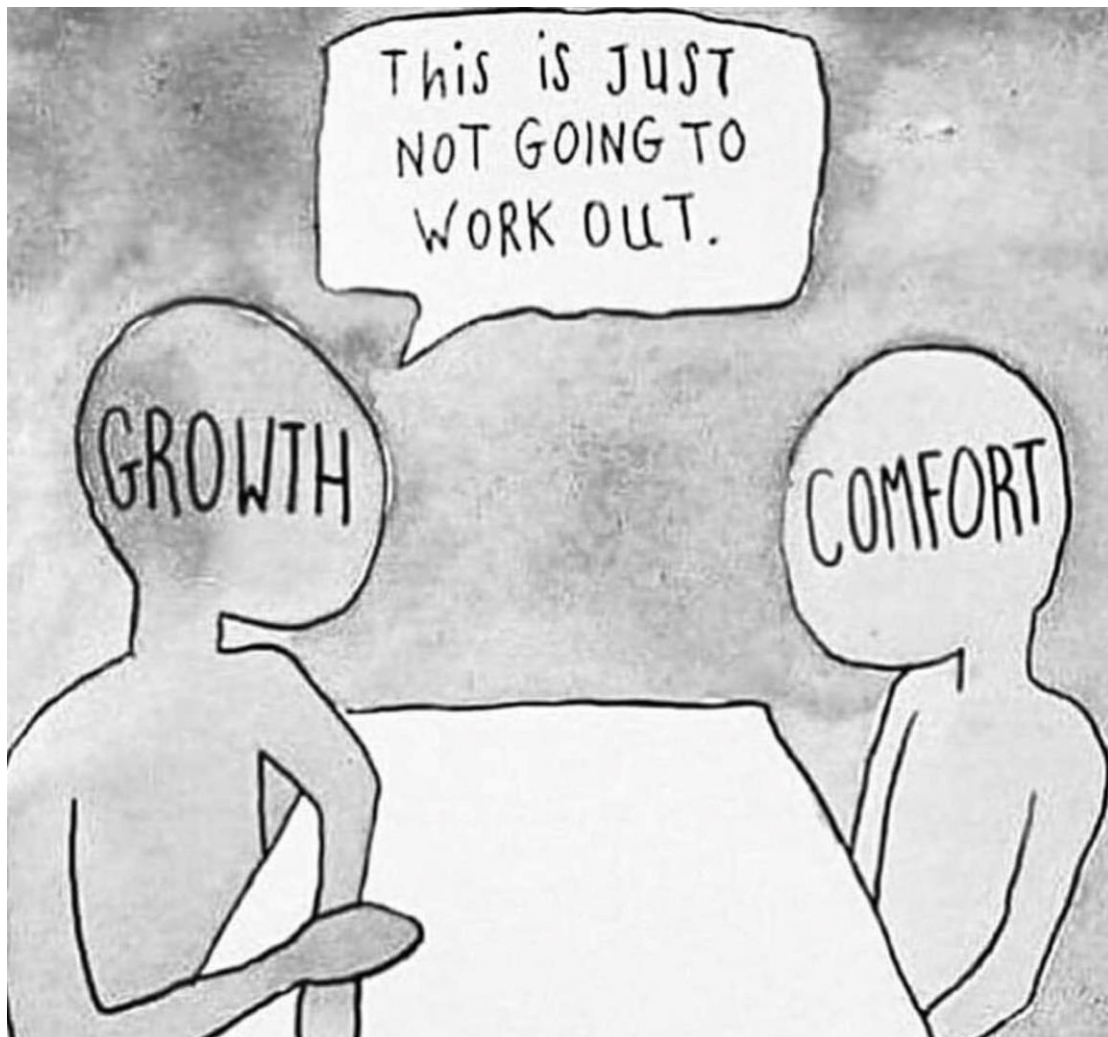
This study has been so pivotal in helping health practitioners from social workers to medical doctors help people by understanding that childhood trauma can have long lasting effects on people in terms of physical, mental, emotional and social health.

Besides wanting to heal and live a different and healthy life, different to the environment I grew up in, preventing physical illness was also a driving force in wanting to heal my trauma. I knew intuitively that if I didn't work through my own trauma that I could end up being physically ill later in life given I experienced 8 out of the 10 ACE's.

I'm physically in pretty good health as it's been a conscious decision to look after all aspects of my health, emotional, mental and physical.

It can be a rocky road at times healing from childhood trauma but the advantages to undertaking and sticking with the journey yields many benefits.

Comfort, Growth & Change



- In order to heal from trauma, we have to be prepared to step out of our comfort zone and grow as human beings. Growth is often the opposite of comfort and doing the same thing and staying in the same place or around the same people.
- We have to be prepared to be uncomfortable and let go of comfort in order to heal and this creates growth and change.

Allowing and Alignment in Healing

- High levels of dissociation are normal in trauma;
- No longer being dissociated sometimes means letting go of fantasy that has helped you survive and having to face reality which can be painful;
- Therefore, doing trauma work has to be safe, gentle, consistent, slow work done over a long period of time especially when dealing with complex trauma and attachment trauma;
- Ultimately letting go of unhealthy survival mechanisms which have kept us safe in the past and replacing them with healthier ways of being in the present frees us up to move forward;
- Trauma therapy needs to be relational therapy as we heal with others and with other safe humans we can attach to;
- Modalities like Neurofeedback while highly effective in altering your brain is not relational therapy;
- If you are doing Neurofeedback I would recommend doing it inconjunction with a relationally based therapy;
- There are no quick fixes when working with trauma. The therapist is helping you to change a lifetime of complex trauma and relational patterns.
- The slower you go the safer you will feel.

Trauma makes you feel like you need to move at warp speed to stay out of danger.

Healing involves learning that you can be safe, and even more in control when you slow down.

Michele Rosenthal PTSD Coach & Blogger

- For those who want to heal, healing from trauma is possible;
- For those who want change and are capable of change healing from trauma is possible;
- Avoidance and resistance can get in the way and resistance is also normal;
- We have to deal with the painful stuff too and be willing to do the work;
- We have to work with the subconscious and unconscious mind as well to clear blocks that are out of our awareness.
- Change and healing is not a linear process;
- Sometimes we move forward at a rapid speed and other times we can feel stuck for a period of time;
- Understanding what is happening in your brain and body and how they keep you stuck can help with being able to change your energetic alignment;
- calming your brain and nervous system and being emotionally regulated makes it easier to manifest and create the life you want;
- Brain based therapies such as EMDR, Brainspotting, NET/Kinesiology, Somatic Experiencing and Sensorimotor Psychotherapy can help and accelerate the process for those that are really stuck in their trauma;



- You have to have time and space to integrate change;
- We have our own perceived time lines and the Universe has very different plans for us as we have lessons to learn along the way;
- While mindfulness, meditation, tapping (EFT) can be great tools sometimes they are not strong enough on their own or are too slow to help people with complex trauma;
- Any kind of spiritual practice that helps us to feel good is an amazing tool in healing from trauma together with professional support;
- Healing from trauma definitely takes us out of our comfort zones and for some people living with trauma is so normal for them, living without it can feel very foreign.
- From my own experience letting go of a lot of my past and my trauma, living life to the fullest has felt very liberating and freeing and life is so much better without trauma;
- There is life after trauma and you can heal and then begin to experience living rather than surviving, then post traumatic growth and wisdom.

Post Traumatic Wisdom

My belief is that we can heal from trauma and as much is humanly possible, we can put the past in the past and move on from base survival instincts. We can actually learn to live and eventually thrive. We can move to post traumatic growth and as Oprah coined a phrase Post Traumatic Wisdom.

In an interview Oprah discussing her book “What happened to you” that she co-authored with Dr Bruce Perry she says the following:

“Everything that has happened to you can strengthen you if you allow it. If you are open to it.

It’s because of my own mistakes and my own observations about life and paying attention that I can now truly say I have the most peaceful life of anyone I know but it does take work to get there. “

Oprah Winfrey

This is Post Traumatic Wisdom. Post Traumatic Wisdom allows you to take the bad things that have happened to you, and do something good with those experiences.

Healing does take work and it is worth the journey to create a life you love. You too can create a life of peace, calm, tranquillity, joy, happiness, contentment and fulfillment. You can have a life of ease if you it, embark on the journey and are prepared to do the work.

Conclusion



I hope you have enjoyed this eBook and learnt something along the way. It's been a pleasure sharing this journey with you.

While I have shared much of my own experiences both personally and professionally when it comes to healing from trauma I have also quoted and referenced many of the world's leading trauma experts. I am truly grateful to them as they have helped me personally heal from my own trauma and taught me so much to help many clients in the years I have specialised as a trauma therapist.

All material I have learnt from these leading experts are referenced at the end of this eBook. There are also added resources to assist you in finding further links to the experts I have named and quoted throughout this eBook.

Stay updated via my website www.jackienugara.com as there are more courses & eBooks on the way.

If you would like to view this material via video lessons you can enrol in my course "Healing from Trauma – Bringing Neuroscience and Spirituality Together at the following link:

<https://jackie-s-school-e6ea.thinkific.com/courses/healing-from-trauma>

I wish you well on your journey and remember with healing comes hope and living a happy and fulfilled life. That's the greatest lesson I have learned from my own experiences. There is life after trauma if you are willing to heal.

Namaste, the light in me honours the light in you.

In peace, light & love

Jackie

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