How Trauma Effects the Brain www.fulsheartransition.com/blog/trauma-and-brain

Trauma – is a physical or psychological threat or assault to a child’s physical integrity, sense of self, safety or survival OR the physical safety of another person significant to the child.

What are traumatic events?  Some are obvious, while others may surprise you;

* Abuse; sexual, physical or emotional
* Exposure to violence
* Severe natural disaster ( flood, fire, earthquake, tornado)
* War/ Military Action
* Abandonment
* Witness to violence ( neighborhood, school settings, fights, law enforcement actions)
* Personal attacks by person or animal
* Kidnapping
* Sever bullying
* Medical Procedures ( surgeries, accidents, serious illness)
* Anything Life threatening can have the same effect as a soldier out of battle, particularly if there is restraint involved.

According to Dr. Bruce Perry, our brains create a blueprint for every experience we have and it stores the sight, sound and smell in different places in the brain.  You may have no conscious memory of the event but the imprint is there.  .

This is a particular challenge for pre-language children.  As adults when we have an experience of any kind we store it with our language.  We assign a label or multiple labels to the experience and as Dr. Perry states, we then store it in multiple parts of the brain.  So we may hear a song that reminds us of a romantic encounter or smell a particular food that draws up memories from holidays and celebrations or we may see a field in the distance and be reminded of a place we have been before.  In fact when damage is done to one part of the brain we may still have a memory stimulated of an event from another part of the brain because we store according to our language and our sensations.  We have multiple places and triggers from which to pull these memories.

These all sound like perfectly pleasant functions of our brain and they are, however the same is true for negative experiences and for the pre-language child these memories do not get assigned in the same way that they might for the child with language and in fact can be very confused and sort of malingering in the brain without assignment.  But again the blueprint is there.

The sponginess of the brain in childhood makes children more susceptible to trauma by way of the same mechanism that allows us to learn language and walk by three years of age. Development is the transformation of external into internal regulation; that is how the brain systems regulate interaction between the person and the social environment.

**Effects of Trauma on Children**

The startle or alarm reaction begins, the nervous system is suddenly and significantly activated; this is the fight or flight response; our heart rate increases, our blood pressure goes up, our respirations increase and our muscle tone increases; we are in a state of hypervigilence.  Our body releases high levels of major stress hormones including noradrenaline essentially setting the limbic part of the brain on fire.

When kids are chronically stressed they are so focused on survival it is difficult for them to connect with others.  When a child experiences fear, the thinking systems in the brain shut down.