Trauma and the Brain

Our brain has three main parts: our survival brain, our feeling brain, and our thinking brain. On a regular day, or even when we feel stressed, these parts of our brain are active and communicating to help keep us safe. However, when we experience trauma (either a single trauma or many over a long period of time), our thinking brain shuts down. Thinking works too slowly to be helpful for survival, so we are forced to rely on our survival and feeling brains to try to cope more quickly.

Even after the trauma is over, something (a person, place, or experience) might remind us of the trauma and our brain might misinterpret this reminder as the trauma happening again. This kicks our thinking brain offline, just like during the traumatic event(s). This can sometimes happen without us even realizing it!

When we are reminded of the trauma, it makes it hard to make good decisions or to learn. The good news is that we can learn to rewire our brains to feel safe, so that we can think, make healthy choices, and be better equipped to learn throughout the day.

**Survival Brain**
- Exists in all reptiles and mammals
- Controls basic functions for survival, such as breathing and your heartbeat
- Receives messages from the body, the feeling brain, or the thinking brain to change breathing or heart-rate in order to survive

**Feeling Brain**
- Exists in all mammals
- Uses emotions and 5 senses to take in information and quickly figure out what we need
- Helps us respond to loud sounds (“What’s going on? Do I need to seek safety?”) and to our emotions (“I feel upset; did someone hurt my feelings?”)

**Thinking Brain**
- Exists in all humans
- Helpful for problem-solving, memory formation, and learning
- Not essential for survival
- Works more slowly than the other two parts of the brain
- Goes offline if we need to act quickly for survival or if we are too frightened or stressed to make sense of what’s happening

For example, imagine you step into the street and then see a car coming. Your heart rate increases and you automatically jump back out of the way. That’s your survival brain communicating with your body to keep you safe!

With the example of the car in the street, the feeling brain will sense (using sound, peripheral vision, etc) that a car is coming and tell the survival brain “Get moving!”. It would be much too slow to think “Oh, is that car coming too quickly?”

It’s not helpful to think about a car coming towards you quickly. It takes too much time to think; you need to act! This part of the brain will shut down so that the other more instinctual parts of the brain can be in charge. It will come back as soon as the other parts of the brain and body tell the thinking brain we are safe.