Healing the Body and Brain

Strategies to improve outcomes for those impacted by childhood trauma and toxic stress.

**RELATIONSHIPS**

**MINDFULNESS**

**SELF AWARENESS**

**SELF CARE**

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**Physical Impact of Trauma**

**Brain Architecture**
Shrinkage in prefrontal cortex, corpus callosum, and hippocampus. Enlarged and more reactive amygdala. Resolution: safe and stable nurturing relationships, walk in nature, touch, exercise.

**Brain Waves**
Predominance of wrong brain waves in wrong part of the brain leads to anxiety, unable to concentrate, and seizures. Resolution: neurofeedback.

**Neural Pathways**
Need to ‘rewire’ our brain from old thought patterns and habits of mind, conscious, and unconscious. Resolution: neurofeedback, meditation/mindful action, positive self-talk.

**Neurotransmitters**
Vulnerable to addiction because dopamine transmitters/receptors not developed or damaged. Reduces motivation & focus, creates fatigue. Low serotonin causes depression.

**Hormones**
Prolonged high cortisol and ghrelin creates greater reactivity to stress. Long term damage to cells, structures of the body, and other hormone glands (thyroid). Resolution: oxytocin.

**Toxin Elimination**
Intestines and kidneys less able to eliminate toxins (slow gut or unbalanced flora). Resolution: salt baths, sauna.

**Cellular Change**
Shortens telomeres which prematurely ages and reduces reproduction of cells & can cause cancer. Resolution: social support.

**Epigenetics**
Turns genes on or off in adaptation to dangerous environments. Effect can last generations. Resolution: safer environment (perception of).

**Nervous System**
Supercharged sympathetic nervous system. Parasympathetic nervous system not engaged to bring back into balance. Resolution: yoga, breathing, or other physical/emotional regulation.

**Immune System**
Resistance to cortisol or lower cortisol creates unchecked inflammation. Cause of many diseases: asthma, arthritis, etc. Resolution: meditation/mindful action, walking in nature, diet, rest.

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