



INTRODUCTION TO ANXIETY AND DEPRESSION

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Credentialing

- BOARD CERTIFIED DNP (DOCTOR OF NURSING PRACTICE) BY AANP
- MASTER HERBALIST CERTIFIED WITH SCHOOL OF NATURAL HEALING
- SEVERAL NUTRITION CERTIFICATIONS
- CERTIFIED WITH THE INSTITUTE FOR FUNCTIONAL MEDICINE
- OVER 10 YEARS OF PEDIATRIC PRACTICE
- EXTENSIVE EXPERIENCE TO MANAGE BEHAVIORAL, PSYCHOLOGICAL AND DEVELOPMENTAL CONCERNS WITH A FOCUS IN NUTRITION, NUTRIGENOMICS, GENETICS, AND HOLISTIC PRACTICES

WHAT IS STRESS?

A natural response and reaction our brain or body have to a challenge or demand.

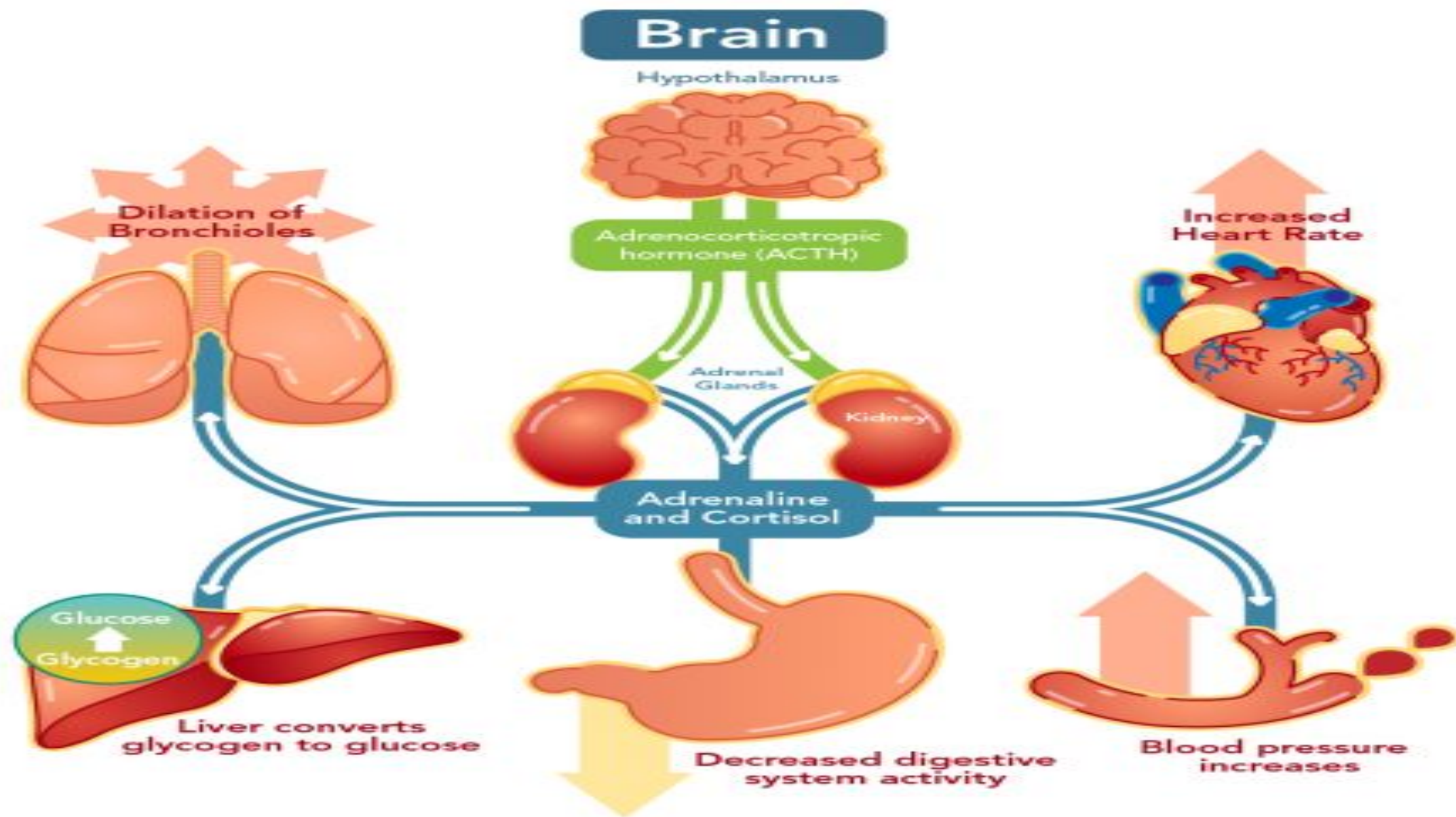
Forms of Stress

- **Physical Stress- Exercising, lack of sleep, injury, chronic sickness, constipation**
- **Emotional Stress-Worry, fear, spiritual, overstimulation**
- **Nutritional Stress-Poor diet, lack of balance, nutritional deficiencies**
- **Chemical/Environmental Stress-Poor detoxification, High exposure, medications**
- **Genetic-SNP's, inheritable disorders**

COMMON STRESS OCCURRENCES

- In Utero-Vertical Transmission from mom, less than optimal health genes (SNP's)
- Birth-Vaginal vs C-section, complications
- Infant-breast fed vs formula fed
- Toddler-Food intolerances, allergies, ear infections, antibiotic use, medications
- Child-Any form of trauma, environmental exposures, vaccines, illness
- Older child-Relationships, family dynamics, sleep, social media, trauma, sleep, substance, finances
- Adult-Jobs, finances, relationships, trauma, substance abuse, marriage, family, chronic illness

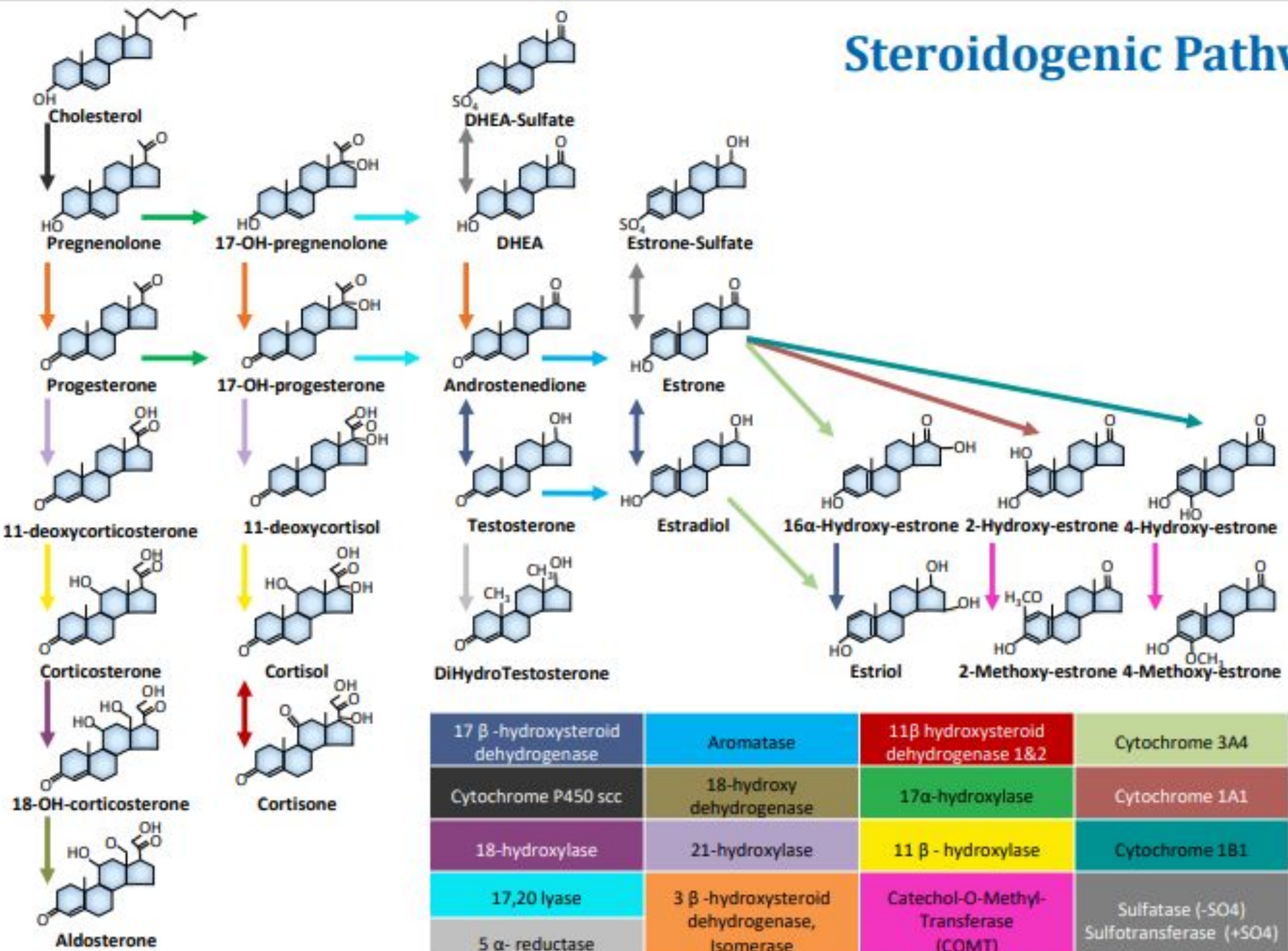
STRESS RESPONSE SYSTEM



MAJOR STRESS HORMONES

- **Cortisol**- Helps to regulate metabolism, healing, immune health, blood pressure etc
- **Adrenaline**- Prepares us to RUN, FIGHT, HIDE
- **Norepinephrine and vasopressin**- Prepare our vessels and muscles and nervous system to have quick and powerful physical responses with increased circulation, HR and gross motor function

Steroidogenic Pathways



SHORT TERM

- Provides quick energy
- Diverts energy to critical organs
- Increases strength/speed and stamina
- Improves vision
- Can keep us safe

LONG TERM

- Dysregulates normal metabolism and blood sugar control
- Will start to deplete nutrients key in these reactions
- Receptors become less responsive
- Depletes our natural antioxidants
- Stops good negative feedback signals

SYMPTOMS OF CHRONIC STRESS

■ Adrenal insufficiency or Fatigue

- Fatigue
 - Weakness, lethargy
 - Poor appetite
 - Weight loss or gain
 - Abdominal pain
 - Cognitive impairment
 - Anxiety
 - Mania
 - Depression
- * Hair thinning or loss
 - * More frequent illness
 - * Insomnia
 - * Emotional Lability
 - * Abnormal Blood Pressure
 - * Skin discoloration
 - * Headaches or “Foggy Brain”

WHY ARE WE TALKING ABOUT STRESS

- Stress is considered a major contributor to the development of anxiety and depression in youth and adolescents
- NIH research shows a positive correlation with higher ACE scores and predictive ability of anxiety and Depression.
- Unhealthy coping skills or social support can lead to poor management of stress and lead to chronic and compounding complications to stress
- Our unhealthy or trained perception of events that lead to exaggerated or recurrent stress responses are a huge problem in today's society

ANXIETY

- A mental condition characterized by excessive apprehensiveness about perceived threats that leads to physical symptoms.
 - Social Anxiety Disorder
 - Generalized Anxiety Disorder
 - Phobias
 - PTSD
 - OCD-although separate, within the larger umbrella of anxiety
- Also a comorbid disorder in other conditions
 - Depression
 - ADHD
 - Autism

DEPRESSION

- A mood disorder that causes a persistent feeling of sadness and loss of interest.
 - Major depressive disorder
 - Postpartum Depression
 - Seasonal Affective Disorder
 - Disruptive Mood Dysregulation Disorder
- Also a comorbid condition in other disorders
 - Bipolar
 - ADHD
 - Autism
 - Anxiety

DIAGNOSING

- PHQ-9
- GAD-7
- The Children's Depression Inventory
- PHQ-2
- SCARED
- PARS

BELIEVED CAUSES

- Genetics and family history
 - Abuse, Neglect, Trauma
 - High ACE scores
 - Drug /toxin exposure
 - Poor Family Dynamics
 - Poor coping ability
- * Neurodevelopmental Delays
 - * Birth Defects or Trauma
 - * Social Pressures-excessive social media

FUNCTIONAL CONTRIBUTORS OF ANXIETY AND DEPRESSION

- Poor sleep-<10hrs nightly and going to bed too late
- Excessive screen time-NIH reports > 4hrs will increase incidence of both
- Poor Nutrition or nutritional deficiencies-iron, b-complex, vitamin D
- Lack of exercise
- Mold, Lyme's, High Copper, MTHFR (SNP's)

TREATMENT IDEAS

- First remember everyone has individual and unique needs
- Help the child engage in stress reduction techniques- deep breathing, tapping, meditation, heart math, limbic system retraining
- Consider getting child into counseling to help learn healthy coping skills
- Help with improved sleep
- Help set rules for improved screen time limits
- Help set up a schedule with your child to ensure breaks and helping to balance stimulation
- Consider having an evaluation for appropriate screening
- Consider some of the following functional ideas.....

OMEGA OILS (3,6,7,9)

- EPA/DHA- Key essential fatty acids in the body
- Our brain is 60% fat, so high quality fat is essential for good brain function.
- Omega stabilize unhealthy fat, reduce inflammation, improve cell integrity
- Deficiency causes breakdown of our neurons, reduces synapses, and modifies dopamine and Serotonin receptors
- Omega 3,6 ratio of 2-3/1, currently most kids currently get 1/15 ratio
- Omega 3 fats- Fish (Salmon, Mackerel, sardine, anchovy, herring), cold pressed oils (olive, coconut, avocado), avocados, nuts and seeds and organic pasture raised animal products
- Omega 6 oils-Vegetable oils, seed oils, fried foods, packaged and processed foods
- Increasing Omegas has been shown to help with mood

MAGNESIUM

- Required as a cofactor in over 300 known biochemical functions
- Required by mitochondria for energy production
- Required for normal bowel motility
- Required for healthy bone mineralization
- Required for DNA, RNA and Glutathione
- Key to reduce and control oxidative stress, especially in the nervous system
- Harmonizes the nerve signal transmission in the brain
- Preserves integrity of the blood brain barrier
- Magnesium glycinate/L-threonate has been shown to help reduce sympathetic tone and to improve an overwhelming stress response.

VITAMIN D

- Essential fat soluble vitamin
- Critical for absorbing and retaining calcium and phosphorus
- Modulates the innate and adaptive Immune function
- Promotes proper cell proliferation and differentiation
- Helps to regulate the stress response
- Key in intracellular signaling, anti-inflammatory actions
- Large role in expression of genes/proteins
- Source-Sunshine during months-May-September, farm raised eggs, wild caught fish, raw/organic milk, omega oils.
- 50% of kids 1-5yrs old and 70% 6-11yrs old are D deficient
- Improving vitamin D has been shown to improve mood in general.

OPTIMIZE NUTRITION

- Organic Foods-Meats, dairy-look at dirty dozen by the EPA
- Remove GMO foods-Grains, cereals etc
- Balance meals-Always mixing carbs with fats/proteins
- Being careful with high glycemic index foods
- Use Natural Sweeteners-Raw local honey, 100% Maple, stevia, monk fruit sweetener, black strap molasses, erythritol, organic coconut sugar
- Stop food colorings, artificial flavorings like MSG and other additives (read your labels)

OPTIMIZE HYDRATION

- Filter your water-consider Berkey or reverse osmosis system
- Get away from plastic bottles, cups-use ceramic, glass, stainless steel or use only BPA free
- Make sure you child is drinking $\frac{1}{2}$ their body weight in oz daily
- Stop use of juices, sodas, or other beverages with added sugars
- Consider Ultima Replenisher, Dr. Berg electrolyte powder, Feel Goods Hydration Hero powder, LMNT Recharge- be cautious because it does have a lot of sodium per serving, Primal Hydration, coconut water

EMOTIONAL AND SOCIAL SUPPORT

- Work on creating a balanced schedule-kids need time off
- Work on balancing stimulation-many kids have sensitivities to different forms of stimulation-auditory, proprioceptive, vestibular, physical
- Work on balancing routine-Make sure there is a good daily routing to provide stability

OPTIMIZE SLEEP/EMF EXPOSURE

- Best sleep is sleep BEFORE MIDNIGHT
- Stop TV and other Electronics use 2hrs before bed, limit daytime use
- Make sure that your child is exercising daily* 45min daily
- Avoid caffeine
- Keep routine bedtime –Bedtime same time
- Start night with warm shower or Epsom salt bath
- Keep electronics and EMF devices out of the room (Wifi/Bluetooth)
- If possible at night turn off the router

NUTRACEUTICALS

- L-theanine
- Holy Basil
- Passion Flower
- Lemon Balm
- Ashwaghanda
- Rhodiola
- Astragalus
- Mucuna Pruriens
- Ginko Biloba
- Asian Ginseng
- Lion's Mane
- St. John's Wart