

# Community Education Series

The Recovery Village and Advanced Recovery Systems





## **Presentation Topic:**

The Role of Micronutrients in Optimal Brain Health



## **Speaker:**

Dwight Franklin, DOM

# About the Speaker:

Dwight Franklin,

DOM



- Dwight Franklin, DOM is a Doctor of Oriental Medicine and owner of Franklin Family Wellness Institute. He is a graduate and former Professor at Florida College of Integrative Medicine, where he received a Master's of Science in Oriental Medicine. Over the course of his career Dwight has worked alongside medical doctors in developing wellness programs for both childhood and adult physical and mental health disorders through the practice of Eastern Medicine, Functional Medicine Lab testing, High-Quality Supplementation, Food Therapy, and Lifestyle changes.

# FDA DISCLAIMER

These statements have not been evaluated by the Food and Drug Administration. This webinar is not intended to diagnose, treat, cure or prevent any disease.

# Franklin Family Wellness Institute

- Through customized Wellness Programs, I have had the privilege of helping many children and adults with brain health concerns such as:
  - Hyperactivity
  - Impulsivity
  - Lack of Focus
  - Hyper-focusing
  - Low Motivation
  - Sadness
  - Stress Management
- While I do not have an Addiction Program specifically...
  - The symptoms listed above are a common cause of self medicating
    - I have assisted patients with:
      - Food Addictions
      - Alcoholism
      - Smoking Addictions
      - Opioid Addictions
      - Prior Heavy Drug Use

- The purpose of this webinar is to help the public...
  - Better understand how micronutrients greatly impact brain health
  - Understand how specialty lab testing and individualized nutraceuticals can achieve optimal brain health for children and adults struggling with mental and emotional health concerns.

# Working with the Family

- Parents and Adults are often at their breaking point when they come to see me
  - 99% of the time FFWI is not their first stop
  - I have seen serious mental and emotional health concerns resolved or greatly lessened through implementation of:
    - Specialty Lab Testing
    - Nutraceutical Supplementation
    - Food Therapy
    - Examples...



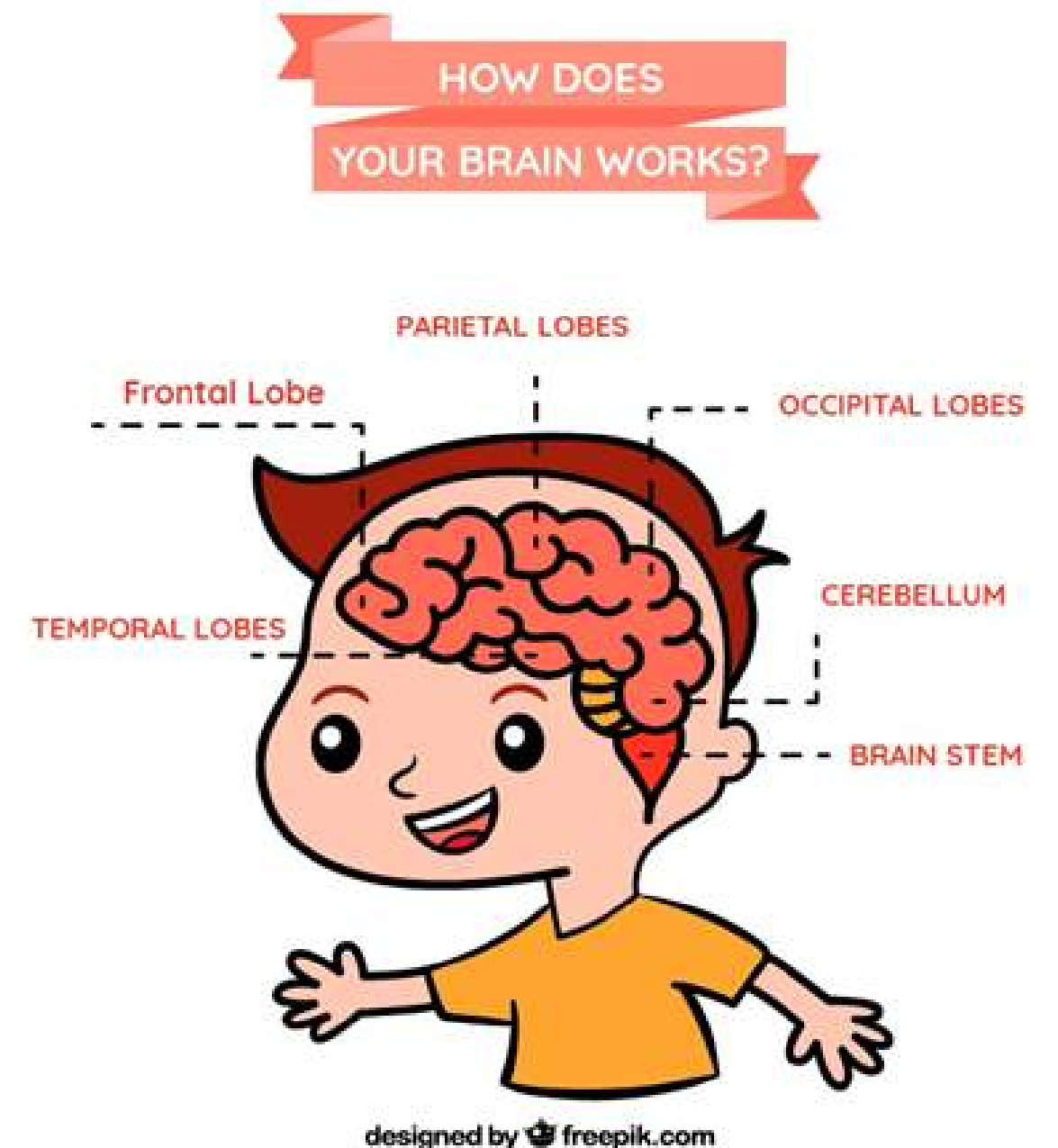
# Parents and Adult Patients Fear...

- Most parents fear that their child's issues are too great for supplements and diet changes to make any difference.
- Adult patients fear that what they have gone through in life is too great for supplements and diet changes to make a difference.
  - Parents and Adult patients often have not realized:
    - That supplementation given and diet changes made have to be consistent and specific to that child or adult
      - Example...
    - There is no one size fits all approach when it comes to brain health
    - High Quality Supplementation is vastly superior than what you will find at your local drug store or grocery store
- Lets talk about the different parts of the brain...
  - What each part does and...
  - What makes each part work



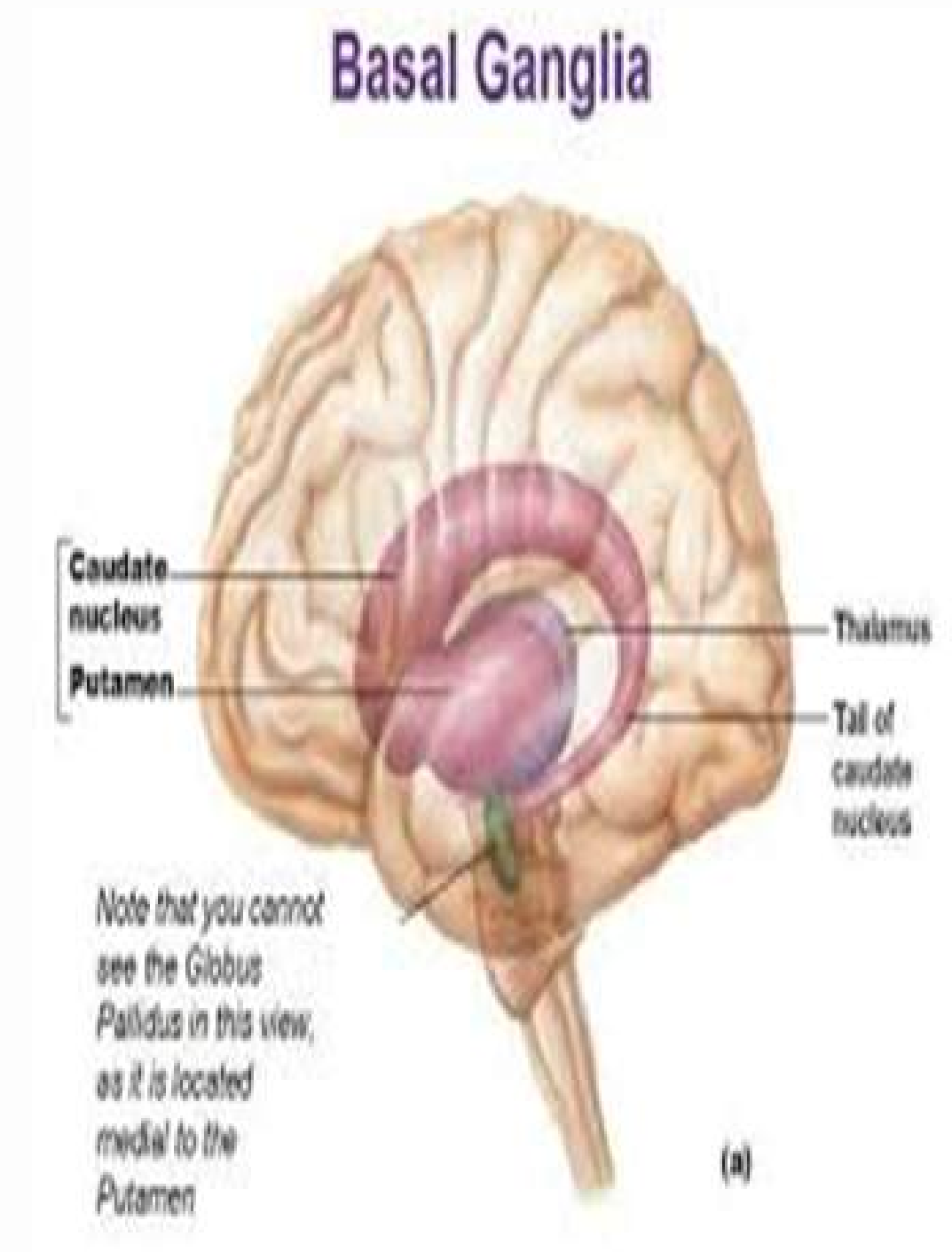
# The Brain

- Frontal Lobe
  - Movement
  - Prefrontal Cortex
    - Focus
    - Planning
    - Understanding consequences
    - Impulse Control
    - Most dopamine sensitive part of brain
- Parietal Lobe
  - Processes sensory information
  - Language Processing
  - Taste and texture
- Temporal Lobe
  - Auditory Processing
    - Language Comprehension
  - Long Term Memories
  - Processing emotions
  - Mood Stability
- Occipital Lobe
  - Vision
  - Visual Memory



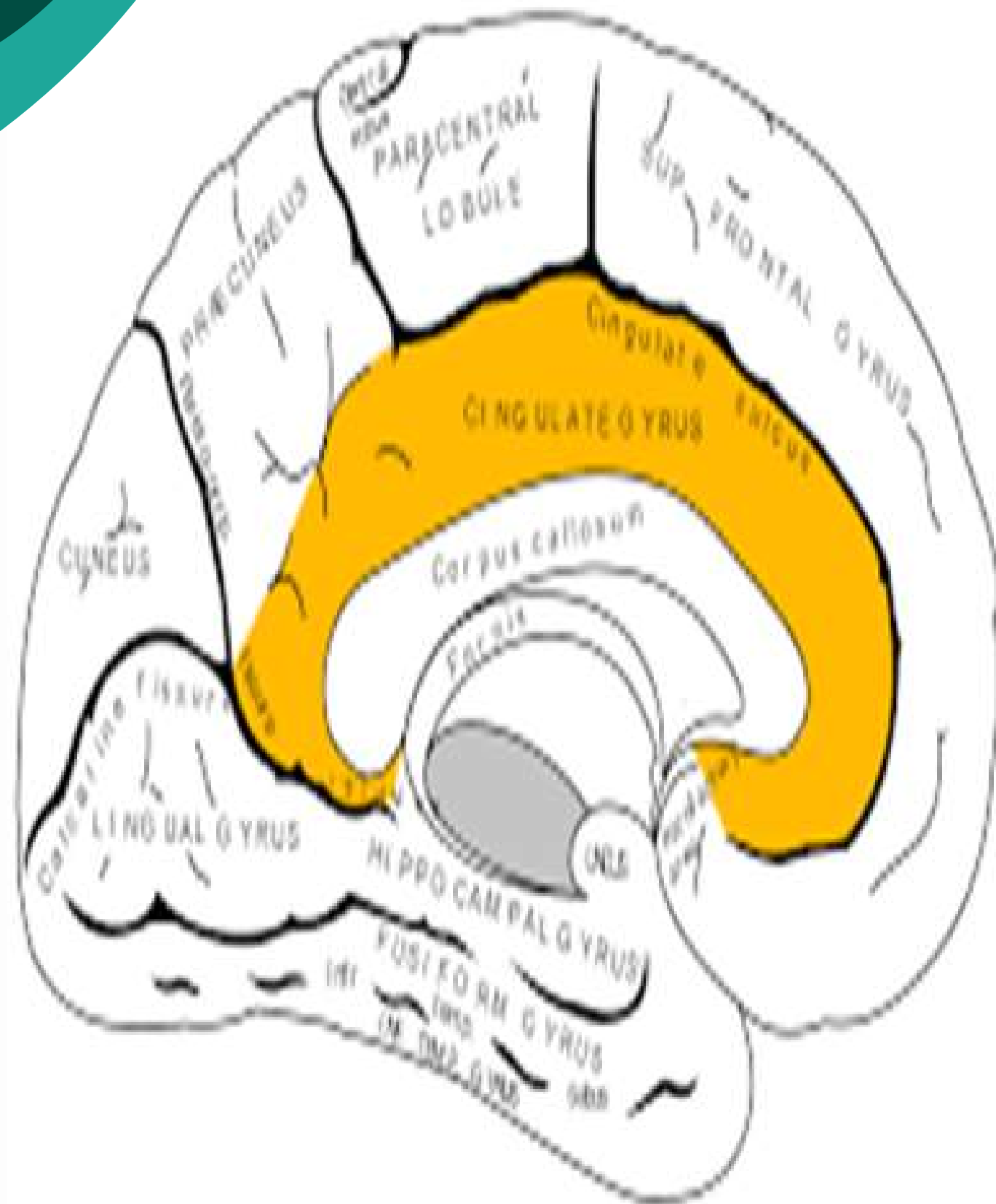
# Basal Ganglia

- Helps to produce dopamine
- Sets the body's anxiety levels
- Integrates thoughts, feelings, and movement
- Why you jump when you're nervous and freeze when you are scared
- Too much input locks you up
- Too little input and a person will move excessively with stressful situations



# Cingulate Gyrus

- Involved with error detection and shifting attention



# Neurotransmitters

## Excitatory

- Dopamine
  - At appropriate levels = Focus, Drive
  - At low levels = Inattention, Poor self-control
  - At excess levels = agitation, anger, hyperfocus
  - Closely related to the brain's reward system
- Norepinephrine and Epinephrine
  - At appropriate levels = Alertness, promotes vigilance, enhances formation and retrieval of memory
  - At low levels = Lack of Drive
  - At excess levels = anxiousness
- Glutamate
  - At appropriate levels = Important for learning and memory
  - At excess levels = excitotoxin, damages neurons, makes emotions erratic
  - Found in foods containing MSG

# Neurotransmitters

## Inhibitory.

- Serotonin
  - At appropriate levels = Happy, Sense of well-being
  - At low levels = Sadness, withdrawing from others, Obsessive Compulsive behaviors when combined with High Dopamine
  - At excess levels = Manic
- GABA
  - At appropriate levels = Calm, Relaxed
  - At low levels = anxious, high stress and inability to handle stress, always worried
  - At excess levels = fatigue, low motivation

## HP Profile (1)

**Date Collected**  
08/21/2019

**Date Received**  
08/26/2019

**Lab Final**  
08/29/2019

**Samuel Franklin, AP**  
357 Wekiva Springs Rd.  
Longwood, FL 32779  
United States

Marker	Values	Reference
INHIBITORY NEUROTRANSMITTERS		
SEROTONIN	<b>154</b> (L)	180 - 350 mcg/g Cr
GABA	<b>377.7</b> (L)	570 - 1170 mcg/g Cr
EXCITATORY NEUROTRANSMITTERS		
DOPAMINE	<b>419.3</b> (H)	200 - 400 mcg/g Cr
NOR-EPINEPHRINE	<b>55.9</b>	34 - 70 mcg/g Cr
EPINEPHRINE	<b>3</b> (L)	4 - 14 mcg/g Cr
GLUTAMATE	<b>3.9</b>	3 - 7 mg/g Cr
ADRENAL ADAPTATION INDEX		
NOREPI/EPI RATIO	<b>18.6</b> (H)	< 10
OTHER MARKERS		
CREATININE, URINE	<b>56.4</b>	mg/dL

Creatinine is used to calculate results and is not to be used diagnostically.

## HP Profile (1)

**Date Collected**  
12/16/2019

**Date Received**  
12/18/2019

**Lab Final**  
12/20/2019

**Samuel Franklin, AP**  
357 Wekiva Springs Rd.  
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Marker	Values	Reference
INHIBITORY NEUROTRANSMITTERS		
SEROTONIN	<b>278.6</b>	180 - 350 mcg/g Cr
GABA	<b>632.2</b>	570 - 1170 mcg/g Cr
EXCITATORY NEUROTRANSMITTERS		
DOPAMINE	<b>689.6 (H)</b>	200 - 400 mcg/g Cr
NOR-EPINEPHRINE	<b>64.9</b>	34 - 70 mcg/g Cr
EPINEPHRINE	<b>13.2</b>	4 - 14 mcg/g Cr
GLUTAMATE	<b>15.3 (H)</b>	3 - 7 mg/g Cr
ADRENAL ADAPTATION INDEX		
NOREPI/EPI RATIO	<b>4.9</b>	< 10
OTHER MARKERS		
CREATININE, URINE	<b>95.9</b>	mg/dL

Creatinine is used to calculate results and is not to be used diagnostically.

## HP Profile + PEA (1)

Gender: F      Age: 58

**Date Collected**  
05/06/2020

**Date Received**  
05/11/2020

**Lab Final**  
05/15/2020

**Samuel Franklin, AP**  
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United States

Marker	Values	Optimal	Reference
INHIBITORY NEUROTRANSMITTERS			
SEROTONIN	<b>24.8</b> (L)	125 - 260 mcg/g Cr	50 - 250 mcg/g Cr
GABA	<b>69.2</b> (L)	600 - 1100 mcg/g Cr	150 - 700 mcg/g Cr
EXCITATORY NEUROTRANSMITTERS			
DOPAMINE	<b>129.1</b> (L)	250 - 400 mcg/g Cr	100 - 350 mcg/g Cr
NOR-EPINEPHRINE	<b>43.4</b>	30 - 50 mcg/g Cr	13 - 70 mcg/g Cr
EPINEPHRINE	<b>0.6</b> (L)	10 - 15 mcg/g Cr	3 - 20 mcg/g Cr
GLUTAMATE	<b>1.8</b> (L)	5 - 10 mg/g Cr	2 - 12 mg/g Cr
PEA	<b>5.6</b>	n/a	1.6 - 7.3 mcg/g Cr
ADRENAL ADAPTATION INDEX			
NOREPI/EPI RATIO	<b>72.3</b> (H)	n/a	< 13
OTHER MARKERS			
CREATININE, URINE	<b>96.9</b>	n/a	mg/dL

Creatinine is used to calculate results and is not to be used diagnostically.  
(L) & (H) are based on optimal ranges, if available, otherwise they are based on reference ranges.



## HP Profile + PEA (1)

Gender: M    Age: 37

**Samuel Franklin, AP**  
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Longwood, FL 32779  
United States

Marker	Values	Optimal	Reference
<b>INHIBITORY NEUROTRANSMITTERS</b>			
SEROTONIN	<b>42</b> (H)	125 - 260 mcg/g Cr	50 - 250 mcg/g Cr
GABA	<b>182.6</b> (H)	600 - 1100 mcg/g Cr	150 - 700 mcg/g Cr
<b>EXCITATORY NEUROTRANSMITTERS</b>			
DOPAMINE	<b>122.5</b> (H)	250 - 400 mcg/g Cr	100 - 350 mcg/g Cr
NOR-EPINEPHRINE	<b>7</b> (H)	30 - 50 mcg/g Cr	13 - 70 mcg/g Cr
EPINEPHRINE	<b>0.7</b> (H)	10 - 15 mcg/g Cr	3 - 20 mcg/g Cr
GLUTAMATE	<b>2.5</b> (H)	5 - 10 mg/g Cr	2 - 12 mg/g Cr
PEA	<b>3.2</b>	n/a	1.6 - 7.3 mcg/g Cr
<b>ADRENAL ADAPTATION INDEX</b>			
NOREPI/EPI RATIO	<b>10</b>	n/a	< 13
<b>OTHER MARKERS</b>			
CREATININE, URINE	<b>229.6</b>	n/a	mg/dL

Creatinine is used to calculate results and is not to be used diagnostically.

(L) & (H) are based on optimal ranges if available, otherwise they are based on reference range.

# How Neurotransmitters Are Made

- L-tyrosine (From food or supplement) +Iron+BH4+Niacin->
  - L-Dopa + B6->
    - DOPAMINE + Vitamin C +Copper->
      - NOREPINEPHRINE +SAM-E->
        - EPINEPHRINE
- L-Tryptophan +Vitamin C+Folate+Niacin+Iron+Calcium->
  - 5-HTP +B6+Vitamin C+Zinc+Magnesium->
    - SEROTONIN +SAM-E->
      - Melatonin

# How Neurotransmitters Are Made

- **L-Glutamine ->**
  - **Glutamate ->+Magnesium and B6=**
    - **GABA**

# Folate Cycle

- Folate Cycle
  - B9 (folate = green leafy veggies) → +B3=
    - Dihydrofolate → +B3=
      - Tetrahydrofolate → +B6=
        - 5,10-methylenetetrahydrofolate →
          - +B2+NADH+ATP+MTHFr=5-Methyltetrahydrofolate=
            - Part of the process of detoxification
            - Part of the process of neurotransmitter production

# Other Considerations in Brain Health

- Inflammation
  - Food Dyes
  - Sugar
  - Starch
    - White Potato
    - Bread
    - Pasta
- Food Allergies and Sensitivities
  - IGE and IGG Food Allergy and Sensitivity Labs
- Gut Health
  - Are there Beneficial Bacteria?
  - Are there Candida concerns?
  - Comprehensive Stool Analysis
- Excessive use of electronics

# How I Start Patients...

- Neurotransmitter Testing
  - Urine test (Non-invasive)
  - Allows us to see where the excesses or deficiencies are in neurotransmitters that may be contributing to symptoms
- First Steps Include:
  - Test
  - My interpretation of test to patient or patient's parents
  - The ability to move into one of our customized wellness programs if patient's choose to do so.



# Contact Information

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Franklin Family Wellness Institute

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Instagram: [@Franklin\\_Family\\_Wellness](https://www.instagram.com/@Franklin_Family_Wellness)



**THANK YOU**





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